

TOTAL S.A.  
Form 20-F/A  
March 27, 2015  
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**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

**Form 20-F/A**

(Amendment No.1)

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934  
OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
**For the fiscal year ended December 31, 2014**

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period  
from \_\_\_\_\_ to \_\_\_\_\_

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 Date of event  
requiring this shell company report

Commission file number: 1-10888

**TOTAL S.A.**

(Exact Name of Registrant as Specified in Its Charter)

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**Republic of France**

**(Jurisdiction of Incorporation or Organization)**

**2, place Jean Millier**

**La Défense 6**

**92400 Courbevoie**

**France**

**(Address of Principal Executive Offices)**

**Patrick de La Chevardière**

**Chief Financial Officer**

**TOTAL S.A.**

**2, place Jean Millier**

**La Défense 6**

**92400 Courbevoie**

**France**

**Tel: +33 (0)1 47 44 45 46**

**Fax: +33 (0)1 47 44 49 44**

**(Name, Telephone, Email and/or Facsimile Number and Address of Company Contact Person)**

**Securities registered or to be registered pursuant to Section 12(b) of the Act.**

<b>Title of each class Shares</b>	<b>Name of each exchange on which registered</b>
<b>American Depositary Shares</b>	<b>New York Stock Exchange* New York Stock Exchange</b>

\* Not for trading, but only in connection with the registration of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act.

**None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

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None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

2,385,267,525 Shares, par value €2.50 each, as of December 31, 2014

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).\*\*

Yes  No

\*\* This requirement is not currently applicable to the registrant.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

International Financial Reporting Standards as issued by the International

U.S. GAAP

Accounting Standards Board

Other

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

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### **Explanatory Note**

This Amendment No. 1 on Form 20-F/A ( Amendment No. 1 ) to the Annual Report on Form 20-F of TOTAL S.A. (the Company ) for the fiscal year ended December 31, 2014, filed on March 26, 2015 (the 2014 Form 20-F ), amends the Supplemental Oil and Gas Information starting on page S-1 in order to correct figures on pages S-3, S-6, S-8, S-9, S-13, S-14, S-15 and S-17.

Other than as set forth herein, the Company has not modified or updated any other disclosures and has made no changes to the items or sections in the Company s 2014 Form 20-F. Other than as expressly set forth above, this Amendment No. 1 does not, and does not purport to, amend, update or restate the information in any part of the Company s 2014 Form 20-F or reflect any events that have occurred after the 2014 Form 20-F was filed on March 26, 2015. The filing of this Amendment No. 1, and the inclusion of newly executed certifications, should not be understood to mean that any other statements contained in the original filing are true and complete as of any date subsequent to March 26, 2015. Accordingly, this Amendment No. 1 should be read in conjunction with the 2014 Form 20-F and the documents filed with or furnished to the Securities and Exchange Commission by the Company subsequent to March 26, 2015, including any amendments to such documents.

### **Basis of presentation**

Financial information included in this Annual Report is presented according to International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and IFRS as adopted by the European Union (EU) as of December 31, 2014.

### **Statements regarding competitive position**

Unless otherwise indicated, statements made in Item 4. Information on the Company referring to TOTAL s competitive position are based on the Company s estimates, and in some cases rely on a range of sources, including investment analysts reports, independent market studies and TOTAL s internal assessments of market share based on publicly available information about the financial results and performance of market participants.

### **Additional information**

This Annual Report on Form 20-F reports information primarily regarding TOTAL s business, operations and financial information relating to the fiscal year ended December 31, 2014. For more recent updates regarding TOTAL, you may inspect any reports, statements or other information TOTAL files with the United States Securities and Exchange Commission ( SEC ). All of TOTAL s SEC filings made after December 31, 2001, are available to the public at the SEC website at <http://www.sec.gov> and from certain commercial document retrieval services. See also Item 10 7. Documents on Display .

No material on the TOTAL website forms any part of this Annual Report on Form 20-F. References in this document to documents on the TOTAL website are included as an aid to their location and are not incorporated by reference into this document.

### **Certain terms**

Unless the context indicates otherwise, the following terms have the meanings shown below:

<b>acreage</b>	The area, expressed in acres, over which TOTAL has interests in exploration or production.
<b>ADRs</b>	American Depositary Receipts evidencing ADSs.
<b>ADSs</b>	American Depositary Shares representing the shares of TOTAL S.A.
<b>association / consortium / joint venture</b>	Terms used to generally describe a project in which two or more entities participate. For the principles and methods of consolidation applicable to different types of joint arrangements according to IFRS, refer to Note 1 to the Consolidated Financial Statements.
<b>barrels</b>	Barrels of crude oil, condensates, NGL or bitumen.

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<b>Company</b>	TOTAL S.A.
<b>condensates</b>	Condensates are a mixture of hydrocarbons that exist in a gaseous phase at original reservoir temperature and pressure, but that, when produced, exist in a liquid phase at surface temperature and pressure. Condensates are sometimes referred to as C5+.
<b>crude oil</b>	Crude oil is a mixture of compounds (mainly pentanes and heavier hydrocarbons) that exists in a liquid phase at original reservoir temperature and pressure and remains liquid at atmospheric pressure and ambient temperature. Crude oil or oil are sometimes used as generic terms to designate crude oil plus condensates plus NGL.
<b>Depository</b>	JP Morgan Chase Bank, N.A.
<b>Depository Agreement</b>	The depository agreement pursuant to which ADSs are issued, a copy of which is attached as Exhibit (a) to the registration statement on Form F-6 (Reg. No. 333-199737) filed with the SEC on October 31, 2014.
<b>ERMI</b>	The ERMI (European Refining Margin Indicator) is a Group indicator intended to represent the refining margin after variable costs for a theoretical complex refinery located around Rotterdam in Northern Europe that processes a mix of crude oil and other inputs commonly supplied to this region to produce and market the main refined products at prevailing prices in the region.

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<b>Group</b>	TOTAL S.A. and its subsidiaries and affiliates. The terms TOTAL and Group are used interchangeably.
<b>hydrocracker</b>	A refinery unit which uses a catalyst and extraordinarily high pressure, in the presence of surplus hydrogen, to shorten molecules.
<b>liquids</b>	Liquids consist of crude oil, bitumen, condensates and NGL.
<b>LNG</b>	Liquefied natural gas.
<b>LPG</b>	Liquefied petroleum gas is a mixture of hydrocarbons, the principal components of which are propane and butane, in a gaseous state at atmospheric pressure, but which is liquefied under moderate pressure and ambient temperature. LPG is included in NGL.
<b>NGL</b>	Natural gas liquids (NGL) are a mixture of light hydrocarbons that exist in the gaseous phase at atmospheric pressure and are recovered as liquids in gas processing plants; NGL include very light hydrocarbons (ethane, propane and butane).
<b>oil and gas</b>	Generic term which includes all hydrocarbons ( <i>e.g.</i> , crude oil, condensates, NGL, bitumen and natural gas).
<b>project</b>	As used in this report, <b>project</b> may encompass different meanings, such as properties, agreements, investments, developments, phases, activities or components, each of which may also informally be described as a <b>project</b> . Such use is for convenience only and is not intended as a precise description of the term <b>project</b> as it relates to any specific governmental law or regulation.
<b>proved reserves</b>	Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations, prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The full definition of <b>proved reserves</b> that we are required to follow in presenting such information in our financial results and elsewhere in reports we file with the SEC is found in Rule 4-10 of Regulation S-X under the U.S. Securities Act of 1933, as amended (including as amended by the SEC <b>Modernization of Oil and Gas Reporting</b> Release No. 33-8995 of December 31, 2008) ( <b>Rule 4-10</b> ).
<b>proved developed reserves</b>	Proved developed oil and gas reserves are proved reserves that can be expected to be recovered (i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well. The full definition of <b>developed reserves</b> that we are required to follow in presenting such information in our financial results and elsewhere in reports we file with the SEC is found in Rule 4-10.
<b>proved undeveloped reserves</b>	Proved undeveloped oil and gas reserves are proved reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion. The full definition of <b>undeveloped reserves</b> that we are required to follow



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in presenting such information in our financial results and elsewhere in reports we file with the SEC is found in Rule 4-10.

### **steam cracker**

A petrochemical plant that turns naphtha and light hydrocarbons into ethylene, propylene, and other chemical raw materials.

### **TOTAL**

TOTAL S.A. and its subsidiaries and affiliates. We use such term interchangeably with the term Group. When we refer to the parent holding company alone, we use the term TOTAL S.A. or the Company.

### **trains**

Facilities for converting, liquefying, storing and off-loading natural gas.

### **turnarounds**

Temporary shutdowns of facilities for maintenance, overhaul and upgrading.

### **Abbreviations**

b = barrel

t = metric ton

/d = per day

M = million

boe = barrel of oil equivalent

m<sup>3</sup> = cubic meter

/y = per year

B = billion

cf = cubic feet

Btu = British thermal unit

k = thousand

W = watt

GWh = gigawatt-hour

TWh = terawatt-hour

Wp = watt peak

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1 acre	= 0.405 hectares	
1 b	= 42 U.S. gallons	
1 boe	= 1 b of crude oil	= 5,400 cf of gas in 2014 <sup>(1)</sup> (5,403 cf in 2013 and 5,434 cf in 2012)
1 b/d of crude oil	= approximately 50 t/y of crude oil	
1 Bm <sup>3</sup> /y	= approximately 0.1 Bcf/d	
1 m <sup>3</sup>	= 35.3147 cf	
1 kilometer	= approximately 0.62 miles	
1 ton	= 1 t	= 1,000 kilograms (approximately 2,205 pounds)
1 ton of oil	= 1 t of oil	= approximately 7.5 b of oil (assuming a specific gravity of 37° API)
1 Mt of LNG	= approximately 48 Mcf of gas	
1 Mt/y LNG	= approximately 131 Mcf/d	

<sup>(1)</sup> Natural gas is converted to barrels of oil equivalent using a ratio of cubic feet of natural gas per one barrel. This ratio is based on the actual average equivalent energy content of TOTAL's natural gas reserves during the applicable periods, and is subject to change. The tabular conversion rate is applicable to TOTAL's natural gas reserves on a group-wide basis.

**Cautionary statement concerning forward-looking statements**

TOTAL has made certain forward-looking statements in this document and in the documents referred to in, or incorporated by reference into, this Annual Report. Such statements are subject to risks and uncertainties. These statements are based on the beliefs and assumptions of the management of TOTAL and on the information currently available to such management. Forward-looking statements include information concerning forecasts, projections, anticipated synergies, and other information concerning possible or assumed future results of TOTAL, and may be preceded by, followed by, or otherwise include the words "believes", "expects", "anticipates", "intends", "plans", "targets", "estimates" or similar expressions.

Forward-looking statements are not assurances of results or values. They involve risks, uncertainties and assumptions. TOTAL's future results and share value may differ materially from those expressed in these forward-looking statements. Many of the factors that will determine these results and values are beyond TOTAL's ability to control or predict. Except for its ongoing obligations to disclose material information as required by applicable securities laws, TOTAL does not have any intention or obligation to update forward-looking statements after the distribution of this document, even if new information, future events or other circumstances have made them incorrect or misleading.

You should understand that various factors, certain of which are discussed elsewhere in this document and in the documents referred to in, or incorporated by reference into, this document, could affect the future results of TOTAL and could cause results to differ materially from those expressed in such forward-looking statements, including:

- material adverse changes in general economic conditions or in the markets served by TOTAL, including changes in the prices of oil, natural gas, refined products, petrochemical products and other chemicals;
- changes in currency exchange rates and currency devaluations;
- the success and the economic efficiency of oil and natural gas exploration, development and production programs, including, without limitation, those that are not controlled and/or operated by TOTAL;
- uncertainties about estimates of changes in proven and potential reserves and the capabilities of production facilities;
- uncertainties about the ability to control unit costs in exploration, production, refining and marketing (including refining margins) and chemicals;
- changes in the current capital expenditure plans of TOTAL;
- the ability of TOTAL to realize anticipated cost savings, synergies and operating efficiencies;
- the financial resources of competitors;
- changes in laws and regulations, including tax and environmental laws and industrial safety regulations;
- the quality of future opportunities that may be presented to or pursued by TOTAL;
- the ability to generate cash flow or obtain financing to fund growth and the cost of such financing and liquidity conditions in the capital markets generally;
- the ability to obtain governmental or regulatory approvals;
- the ability to respond to challenges in international markets, including political or economic conditions (including national and international armed conflict) and trade and regulatory matters (including actual or proposed sanctions on companies that conduct business in certain countries);
- the ability to complete and integrate appropriate acquisitions, strategic alliances and joint ventures;
- changes in the political environment that adversely affect exploration, production licenses and contractual rights or impose minimum drilling obligations, price controls, nationalization or expropriation, and regulation of refining and marketing, chemicals and power generating activities;

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the possibility that other unpredictable events such as labor disputes or industrial accidents will adversely affect the business of TOTAL; and the risk that TOTAL will inadequately hedge the price of crude oil or finished products.

For additional factors, you should read the information set forth under Item 3 C. Risk Factors , Item 4 C. Other Matters , Item 5. Operating and Financial Review and Prospects and Item 11. Quantitative and Qualitative Disclosures About Market Risk .

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Items 1 - 3

**ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**ITEM 3. KEY INFORMATION****A. SELECTED FINANCIAL DATA**

The following table presents selected consolidated financial data for TOTAL on the basis of IFRS as issued by the IASB and IFRS as adopted by the EU for the years ended December 31, 2014, 2013, 2012, 2011 and 2010. Effective January 1, 2014, TOTAL changed the presentation currency of the Group's Consolidated Financial Statements from the Euro to the US Dollar. Comparative 2013, 2012, 2011 and 2010 information in the table below has been restated. For more information, see the Introduction to the Consolidated Financial Statements. Following the retrospective application of the accounting interpretation IFRIC 21 effective January 1, 2014, the information for 2013 and 2012 has been restated; however, the impact on such restated results is not significant (for further information concerning this restatement, see the introduction to the Notes to the Consolidated Financial Statements included elsewhere herein). Ernst & Young Audit and KPMG S.A., independent registered public accounting firms and the Company's auditors, audited the historical consolidated financial statements of TOTAL for these periods from which the financial data presented below for such periods are derived, except for the application of the revised accounting standard IAS 19 for the year 2010 and for the application of IFRIC 21 and change of presentation currency for the years 2010 and 2011. All such data should be read in conjunction with the Consolidated Financial Statements and the Notes thereto included elsewhere herein.

**SELECTED CONSOLIDATED FINANCIAL DATA**

(M\$, except share and per share data) <sup>(a)</sup>	2014	2013	2012	2011	2010
<b>INCOME STATEMENT DATA</b>					
Revenues from sales	212,018	227,969	234,216	231,830	186,232
Net income, Group share	4,244	11,228	13,648	17,400	14,740
Earnings per share	1.87	4.96	6.05	7.74	6.60
Fully diluted earnings per share	1.86	4.94	6.02	7.71	6.57
<b>CASH FLOW STATEMENT DATA</b>					
Cash flow from operating activities	25,608	28,513	28,858	27,193	24,516
Total expenditures	30,509	34,431	29,475	34,161	21,574
<b>BALANCE SHEET DATA</b>					
Total assets	229,798	239,223	225,886	211,793	191,641
Non-current financial debt	45,481	34,574	29,392	29,186	27,770
Non-controlling interests	3,201	3,138	1,689	1,749	1,144
Shareholders' equity - Group share	90,330	100,241	93,969	86,667	79,748
Common shares	7,518	7,493	7,454	7,447	7,398
<b>DIVIDENDS</b>					
Dividend per share (euros)	€2.44 <sup>(b)</sup>	€2.38	€2.34	€2.28	€2.28
Dividend per share (dollars)	\$3.00 <sup>(b)(c)</sup>	\$3.24	\$3.05	\$2.97	\$3.15
<b>COMMON SHARES<sup>(d)</sup></b>					
Average number outstanding of common shares €2.50 par value (shares undiluted)	2,272,859,512	2,264,349,795	2,255,801,563	2,247,479,529	2,234,829,043

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Average number outstanding of common shares €2.50 par value (shares diluted)	2,281,004,151	2,271,543,658	2,266,635,745	2,256,951,403	2,244,494,576
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- (a) *Following the retrospective application of the accounting interpretation IFRIC 21 effective January 1, 2014, the information for 2013 has been restated; however, the impact on such restated results is not significant (for further information concerning this restatement, see the introduction to the Notes to the Consolidated Financial Statements included elsewhere herein).*
- (b) *Subject to approval by the shareholders meeting on May 29, 2015.*
- (c) *Estimated dividend in dollars includes the first quarterly interim ADR dividend of \$0.77 paid in October 2014 and the second quarterly interim ADR dividend of \$0.75 paid in January 2015, as well as the third quarterly interim ADR dividend of \$0.74 payable in April 2015 and the proposed final interim ADR dividend of \$0.74 payable in July 2015, both converted at a rate of \$1.21/€.*
- (d) *The number of common shares shown has been used to calculate per share amounts.*

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**B. EXCHANGE RATE INFORMATION**

For information regarding the effects of currency fluctuations on TOTAL's results, see Item 5. Operating and Financial Review and Prospects .

Most currency amounts in this Annual Report on Form 20-F are expressed in U.S. dollars ( dollars or \$ ) or in euros ( euros or € ). For the convenience of the reader, this Annual Report on Form 20-F presents certain translations into dollars of certain euro amounts (\$1.30/€1.00).

The following table sets out the average dollar/euro exchange rates expressed in dollars per €1.00 for the years indicated, based on an average of the daily European Central Bank ( ECB ) reference exchange rate. Such rates are used by TOTAL in preparation of its Consolidated Statement of Income and Consolidated Statement of Cash Flow in its Consolidated Financial Statements. No representation is made that the euro could have been converted into dollars at the rates shown or at any other rates for such periods or at such dates.

**DOLLAR/EURO EXCHANGE RATES**

<b>Year</b>	<b>Average Rate</b>
2010	1.3257
2011	1.3920
2012	1.2848
2013	1.3281
2014	1.3285

The table below shows the high and low dollar/euro exchange rates for the four months ended December 31, 2014, and for the first months of 2015, based on the daily ECB reference exchange rates published during the relevant month expressed in dollars per €1.00.

**DOLLAR/EURO EXCHANGE RATES**

<b>Period</b>	<b>High</b>	<b>Low</b>
September 2014	1.3151	1.2583
October 2014	1.2823	1.2524
November 2014	1.2539	1.2393
December 2014	1.2537	1.2141
January 2015	1.2043	1.1198
February 2015	1.1447	1.1240
March 2015 <sup>(a)</sup>	1.1227	1.0557

<sup>(a)</sup> Through March 24, 2015.

The ECB reference exchange rate on March 24, 2015 for the dollar against the euro was \$1.0950/€.

## C. RISK FACTORS

The Group and its businesses are subject to various risks relating to changing competitive, economic, political, legal, social, industry, business and financial conditions. These conditions, along with TOTAL's approaches to managing certain of these risks, are described below and discussed in greater detail elsewhere in this Annual Report, particularly under the headings Item 4 C. Other Matters, Item 5. Operating and Financial Review and Prospects and Item 11. Quantitative and Qualitative Disclosures About Market Risk.

*The operating results and future rate of growth of the Group are exposed to the effects of changing commodity prices.*

Prices for oil and natural gas may fluctuate widely due to many factors over which TOTAL has no control. These factors include:

- variations in global and regional supply and demand of energy;
- global and regional economic and political developments in resource-producing regions, particularly in the Middle East, Africa and South America;
- the ability of the Organization of the Petroleum Exporting Countries (OPEC) and other producing nations to influence global production levels and prices;
- prices of unconventional energies as well as evolving approaches for developing oil sands and shale oil, which may affect the Group's realized prices, notably under its long-term gas sales contracts and asset valuations, particularly in North America;
- cost and availability of new technology;
- governmental regulations and actions;
- global economic and financial market conditions;
- war or other conflicts;
- changes in demographics, including population growth rates and consumer preferences; and
- adverse weather conditions (such as hurricanes) that can disrupt supplies or interrupt operations of the Group's facilities.

Substantial or extended declines in oil and natural gas prices would significantly and adversely affect TOTAL's results of operations by reducing its profits. The year 2014 was marked by a sharp oil price decline in the second half, which continued in early 2015. For more detailed information on this oil price decline and its impact on the Group's 2014 results, financial position and outlook, refer to Item 5. Operating and Financial Review and Prospects. For the year 2015, according to the scenarios retained, TOTAL estimates that a decrease of \$10 per barrel in the average annual price of Brent crude would have the effect of reducing its annual cash flow from operations by approximately \$2 billion, and vice versa (Brent price of \$60 per barrel). In addition to the adverse effect on revenues, margins and profitability from any fall in oil and natural gas prices, a prolonged period of low prices or other indicators could lead to a review of the Group's assets and oil and natural gas reserves. Such review would reflect the Company's view based on estimates, assumptions and judgments and could result in a reduction in the Group's reported reserves and/or a charge for impairment that could have a significant effect on the Group's results in the period in which it occurs. Lower oil and natural gas prices over prolonged periods may also reduce the

<sup>(1)</sup> For the period 2010–2014, the averages of the ECB reference exchange rates expressed in dollars per €1.00 on the last business day of each month during the relevant year are as follows: 2010 1.32; 2011 1.40; 2012 1.29; 2013 1.33; and 2014 1.32.

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## Item 3 - C. Risk Factors

economic viability of projects planned or in development, impact the asset sale program of the Group and reduce liquidity, thereby decreasing the Group's ability to finance capital expenditures and/or causing it to cancel or postpone investment projects. If TOTAL is unable to follow through with investment projects, the Group's opportunities for future revenue and profitability growth would be reduced, which could materially impact the Group's financial condition.

Conversely, in a high oil and gas price environment, the Group can experience significant increases in cost and government take, and, under some production-sharing contracts, the Group's production rights could be reduced. Higher prices can also reduce demand for the Group's products.

The Group's earnings from its Refining & Chemicals and Marketing & Services segments are primarily dependent upon the supply and demand for refined products and the associated margins on refined product sales, with the impact of changes in oil and gas prices on earnings on these segments being dependent upon the speed at which the prices of refined products adjust to reflect movements in oil and gas prices. For the year 2015, according to the scenarios retained, TOTAL estimates that a decrease in the Group's European Refining Margin Indicator ( ERMI ) of \$1.00 per ton would decrease its annual cash flow from operations by approximately \$0.07 billion, and vice versa.

***The Group's long-term profitability depends on cost effective discovery, acquisition and development of new reserves; if the Group is unsuccessful, its results of operations and financial condition would be materially and adversely affected.***

A significant portion of the Group's revenues and the majority of its operating results are derived from the sale of oil and gas that the Group extracts from underground reserves developed as part of its Exploration & Production activities. The development of oil and gas fields, the construction of facilities and the drilling of production or injection wells is capital intensive and requires advanced technology. Due to constantly changing market conditions and difficult environmental challenges, cost projections can be uncertain. In order for the Upstream segment to continue to be profitable, the Group needs to replace its reserves with new proved reserves. Furthermore, the Group needs to accomplish such replacement in a manner that allows subsequent production to be economically viable. However, TOTAL's ability to discover or acquire and develop new reserves successfully is uncertain and can be negatively affected by a number of factors, including:

- the geological nature of oil and gas fields, notably unexpected drilling conditions including pressure or irregularities in geological formations;
- the risk of dry holes or failure to find expected commercial quantities of hydrocarbons;
- the inability of service companies to deliver on contracted services;
- the inability of the Group's partners to execute or finance projects in which the Group holds an interest;
- equipment failures, fires, blow-outs or accidents;
- the Group's inability to develop or implement new technologies that enable access to previously inaccessible fields;
- the Group's inability to anticipate market changes in a timely manner;
- adverse weather conditions;
- compliance with both anticipated and unanticipated governmental requirements, including U.S. and EU regulations that may give a competitive advantage to companies not subject to such regulations;
- shortages or delays in the availability or delivery of appropriate equipment;
- industrial action;
- competition from oil and gas companies for the acquisition and development of assets and licenses (see Item 4 - C. Other Matters - 5. Competition );
- increased taxes and royalties, including retroactive claims; and
- disputes related to property titles.

Any of these factors could lead to cost overruns and impair the Group's ability to make discoveries and acquisitions or complete a development project, or to make production economical. It is impossible to guarantee that new reserves of oil and gas will be discovered or acquired in sufficient quantities to replace the Group's reserves currently being developed, produced and marketed.

Furthermore, some of these factors may also affect the Group's projects and facilities further down the oil and gas chain. If TOTAL fails to develop new reserves cost-effectively on an ongoing basis, the Group's results of operations, including profits, and the Group's financial condition, would be materially and adversely affected.

***The Group's oil and gas reserves data are only estimates and subsequent downward adjustments are possible. If actual production from such reserves is lower than current estimates indicate, the Group's results of operations and financial condition would be negatively impacted.***

The Group's proved reserves figures are estimates reflecting applicable reporting regulations. Proved reserves are those reserves which, by analysis of geosciences and engineering data, can be estimated with reasonable certainty to be economically recoverable from a given date forward, from known reservoirs and under existing economic conditions, operating methods and government regulations prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. Reserves are estimated by teams of qualified, experienced and trained geoscientists, petroleum engineers and project engineers, who rigorously review and analyze in detail all available geosciences and engineering data (e.g., seismic, electrical logs, cores, fluids, pressures, flow rates, facilities parameters). This process involves making subjective judgments, including with respect to the estimate of hydrocarbons initially in place, initial production rates and recovery efficiency, based on available geological, technical and economic data. Consequently, estimates of reserves are not exact measurements and are subject to revision. In addition, they may be



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negatively impacted by a variety of factors that are beyond the Group's control and that could cause such estimates to be adjusted downward in the future, or cause the Group's actual production to be lower than its currently reported proved reserves indicate. The main such factors include:

a decline in the price of oil or gas, making reserves no longer economically viable to exploit and therefore not classifiable as proved;  
an increase in the price of oil or gas, which may reduce the reserves to which the Group is entitled under production sharing and risked service contracts and other contractual terms;  
changes in tax rules and other government regulations that make reserves no longer economically viable to exploit; and  
the actual production performance of the Group's reservoirs.

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The Group's proved reserves based on SEC rules were 11,523 Mboe at December 31, 2014, based on the average monthly Brent price of \$101.3/b. If the Brent price were to continue to remain low in 2015 compared to 2014, proved reserves at year-end 2015 could decline.

The Group's reserves estimates may therefore require substantial downward revisions to the extent its subjective judgments prove not to have been conservative enough based on the available geosciences and engineering data, or the Group's assumptions regarding factors or variables that are beyond its control prove to be incorrect over time. Any downward adjustment would indicate lower future production amounts, which could adversely affect the Group's results of operations, including profits as well as its financial condition.

#### ***The Group's production growth depends on the delivery of its major development projects.***

The Group's targeted production growth relies heavily on the successful execution of major development projects that are increasingly complex and capital-intensive. These major projects are subject to a number of challenges, including:

- negotiations with partners, governments, suppliers, customers and others;
- cost overruns and delays related to the availability of skilled labor or delays in manufacturing and delivery of critical equipment, or shortages in the availability of such equipment;
- unforeseen technical difficulties that could delay project startup or cause unscheduled project downtime;
- the actual performance of the reservoir and natural field decline; and
- timely issuance or renewal of permits and licenses by government agencies.

Poor delivery of any major project that underpins production or production growth could adversely affect the Group's financial performance.

#### ***Many of the Group's projects are conducted by equity affiliates. This may reduce the Group's degree of control, as well as its ability to identify and manage risks.***

A significant and growing number of the Group's projects are conducted by equity affiliates. In cases where the Group's company is not the operator, such company may have limited influence over, and control of, the behavior, performance and costs of the partnership, its ability to manage risks may be limited and it may, nevertheless, be prosecuted by regulators or claimants in the event of an incident. Additionally, the partners of the Group may not be able to meet their financial or other obligations to the projects, which may threaten the viability of a given project. These partners may also not have the financial capacity to fully indemnify the Group in the event of an incident.

For additional information concerning equity affiliates, refer to Note 12 ( Equity affiliates: investments and loans ) to the Consolidated Financial Statements.

#### ***TOTAL has significant production and reserves located in politically, economically and socially unstable areas, where the likelihood of material disruption of the Group's operations is relatively high.***

A significant portion of TOTAL's oil and gas production and reserves is located in countries outside of the Organisation for Economic Co-operation and Development (OECD). In recent years, a number of these countries have experienced varying degrees of one or more of the following: economic instability, political volatility, civil war, violent conflict, social unrest, actions of terrorist groups

and the application of international economic sanctions. Any of these conditions alone or in combination could disrupt the Group's operations in any of these regions, causing substantial declines in production or revisions to reserves estimates. In Africa, which represented 31% of the Group's 2014 combined liquids and gas production, certain of the countries in which the Group has production have recently suffered from some of these conditions, including Nigeria, which has been the main contributing country to the Group's production of hydrocarbons since 2012, and Libya. The Middle East, which represented 18% of the Group's 2014 combined liquids and gas production, has in recent years suffered increased political volatility in connection with violent conflict and social unrest, including Syria, where European Union (EU) and U.S. economic sanctions have prohibited TOTAL from producing oil and gas since 2011, and Yemen. In South America, which represented 7% of the Group's 2014 combined liquids and gas production, certain of the countries in which TOTAL has production have recently suffered from some of the above-mentioned conditions, including Argentina and Venezuela. In Russia, where, as of December 31, 2014, the Group held 19% of its proved reserves, members of the international community have, since July 2014, adopted economic sanctions against certain Russian persons and entities, including various entities operating in the financial, energy and defense sectors, in response to the situation in Ukraine (for additional information, refer to Restrictions against Russia, below). Furthermore, in addition to current production, TOTAL is also exploring for and developing new reserves in other regions of the world that are historically characterized by political, social and economic instability, such as the Caspian Sea region where TOTAL has large projects currently underway. The occurrence and magnitude of incidents related to economic, social and political instability are unpredictable. It is possible that they could have a material adverse impact on the Group's production and operations in the future and/or cause certain investors to reduce their holdings of TOTAL's securities.

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TOTAL, like other major international energy companies, has a geographically diverse portfolio of reserves and operational sites, which allows it to conduct its business and financial affairs so as to reduce its exposure to political and economic risks. However, there can be no assurance that such events will not have a material adverse impact on the Group.

*TOTAL's activities are subject to intervention by the government of host countries, which could have an adverse effect on the Group's results of operations.*

TOTAL has significant exploration and production activities, and in some cases refining, marketing or chemicals operations, in countries whose governmental and regulatory framework is subject to unexpected change and where the enforcement of contractual rights is uncertain. In addition, the Group's exploration and production activities in such countries are often done in conjunction with state-owned entities, for example as part of a joint venture, where the state has a significant degree of control. In recent years, in various regions globally, TOTAL has seen governments and state-owned enterprises imposing more stringent conditions on companies pursuing exploration and production activities in their respective countries, increasing the costs and uncertainties of the Group's business operations, which is a trend TOTAL expects to continue.

Potential increasing intervention by governments in such countries can take a wide variety of forms, including:

- the award or denial of exploration and production interests;
- the imposition of specific drilling obligations;
- price and/or production quota controls and export limits;

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nationalization or expropriation of assets;  
 unilateral cancellation or modification of license or contract rights;  
 increases in taxes and royalties, including retroactive claims;  
 the renegotiation of contracts;  
 the imposition of increased local content requirements;  
 payment delays; and  
 currency exchange restrictions or currency devaluation.

Imposition of any of these factors by a host government where TOTAL has substantial operations, including exploration, could cause the Group to incur material costs or cause the Group's production or value of the Group's assets to decrease, potentially having a material adverse effect on its results of operations, including profits.

For example, the Nigerian government has been contemplating new legislation to govern the petroleum industry which, if passed into law, could have an impact on the existing and future activities of the Group in that country through increased taxes and/or costs of operation and could adversely affect financial returns from projects in that country.

***Ethical misconduct or breaches of applicable laws by employees of the Group could expose TOTAL to criminal and civil penalties and be damaging to TOTAL's reputation and shareholder value.***

The Group's Code of Conduct, which applies to all of its employees, defines the Group's commitment to business integrity, compliance with all applicable legal requirements and high ethical standards. The Code also defines the behavior and actions expected of the businesses and people of the Group wherever it operates. Ethical misconduct or non-compliance with applicable laws and regulations, including non-compliance with anti-bribery and anti-corruption laws, by TOTAL, its partners, agents or others that act on the Group's behalf, could expose TOTAL and its employees to criminal and civil penalties and could be damaging to TOTAL's reputation and shareholder value. In addition, ethical misconduct or non-compliance with applicable laws may lead the competent authorities to impose other measures, such as the appointment of an independent monitor in charge of reviewing the Group's compliance and internal control procedures and, if need be, recommending improvements of such procedures. For an overview of the settlements between TOTAL, the SEC and the Department of Justice (DoJ) providing for the appointment of an independent monitor, refer to Item 4 C. Other Matters 7.3.7.1. Preventing corruption and Item 8 4. Legal or arbitration proceedings 4. Iran .

***TOTAL is exposed to risks related to the safety and security of its operations.***

TOTAL engages in a broad range of industrial activities, including, in particular, drilling, oil and gas production, processing, transportation, refining and petrochemical activities, storage and distribution of petroleum products, specialty chemicals and solar energy. These activities involve a wide range of operational risks, such as explosions, fires, accidents, equipment failures, leakage of toxic products, emissions or discharges into the air, water or soil, and related environmental and health risks. In the transportation area, the type of risk depends not only on the hazardous nature of the products transported, but also on the transportation methods used (mainly maritime, river-maritime, rail, road and pipelines), the volumes involved and the sensitivity of the regions through which the transport passes (quality of infrastructure, population density, environmental considerations). Moreover, most of the Group's activities will eventually require environmental site remediation, closure and decommissioning after operations are discontinued.

The industrial events that could have the most significant impact are primarily:

a major industrial accident (fire, explosion, leakage of highly toxic products); and  
 large-scale accidental pollution or pollution at a particularly sensitive site.

Each of the described risks corresponds to events that could potentially cause death, harm human health, damage property, disrupt business activities or cause environmental damage. The Group's employees, contractors, residents living near the facilities or customers can suffer injuries. Property damage can involve the facilities of the Group as well as the property of third parties. The seriousness of the consequences of these events varies according to the vulnerability of the people, ecosystems and business activities impacted, on the one hand, and the number of people in the impact area and the location of the ecosystems and business activities in relation to TOTAL's facilities or to the trajectory of the products after the event, on the other hand.

Acts of terrorism against the Group's plants and sites, pipelines, transportation and computer systems could also severely disrupt business activities and could cause harm to people, the environment and property.

Like most industrial groups, TOTAL is affected by reports of occupational illnesses, particularly those caused by past exposure of the Group's employees to asbestos. Asbestos exposure has been subject to close monitoring at all of the Group's business segments. As of December 31, 2014, the Group estimates that the ultimate cost of all pending or future asbestos-related claims is not likely to have a material impact on the Group's financial position.

Certain segments or activities of the Group face specific additional risks.

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TOTAL's Upstream segment faces, notably, risks related to the physical characteristics of oil and gas fields. These risks include eruptions of oil or gas, discovery of hydrocarbon pockets with abnormal pressure, crumbling of well openings, leaks that can harm the environment and explosions or fires. These events, which may cause injury, death or environmental damage, can also damage or destroy oil or gas wells as well as equipment and other property, lead to a disruption of the Group's operations or reduce its production. In addition, since exploration and production activities may take place on sites that are ecologically sensitive (for example, in tropical forests or in a marine environment), each site requires a risk-based approach to avoid or minimize the impact on human health, flora and fauna, the ecosystem and biodiversity. In certain situations where the operator is not a Group entity, the Group may have reduced influence and control over third parties, which may limit its ability to manage and control these risks.

The activities of the Refining & Chemicals and Marketing & Services business segments also entail additional health, safety and environmental risks related to the overall life cycle of the products manufactured, as well as the materials used in the manufacturing process, such as catalysts, additives and monomers. These risks can arise from the intrinsic characteristics of the products involved (flammability, toxicity or long-term environmental impacts such as greenhouse gas emissions), their use (including by customers), emissions and discharges resulting from their manufacturing process (such as greenhouse gas emissions), and from material and waste disposal (recycling, regeneration or other processes, or waste elimination).

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Contracts signed by the Group's entities may provide for indemnification obligations either by TOTAL in favor of the contractor or third parties or by the contractor or third parties in favor of TOTAL if, for example, an event occurs leading to death, personal injury or property or environmental damage.

With respect to joint ventures in which an entity of the Group has an interest and the assets of which are operated by such Group entity under an operating agreement between the joint venture and such entity, contractual terms generally provide that the operator assumes full liability for damages caused by its gross negligence or willful misconduct.

With respect to joint ventures in which an entity of the Group has an interest but the assets of which are operated by a third party, contractual terms generally provide that the operator assumes full liability for damages caused by its gross negligence or willful misconduct.

In the absence of the operator's gross negligence or willful misconduct, other liabilities are generally borne by the joint venture and the cost thereof is assumed by the partners of the joint venture in proportion to their respective ownership interests.

With respect to third-party providers of goods and services, the amount and nature of the liability assumed by the third party depends on the context and may be limited by contract. With respect to their customers, the Group's entities ensure that their products meet applicable specifications and abide by all applicable consumer protection laws. Failure to do so could lead to personal injury, environmental harm and loss of customers, which could negatively impact the Group's results of operations, financial position and reputation.

***Crisis management systems are necessary to respond effectively to emergencies, avoid potential disruptions in TOTAL's business and operations, and minimize impacts on third parties and the environment.***

TOTAL has crisis management plans in place to deal with emergencies. However, these plans cannot exclude the risk that the Group's business and operations may be severely disrupted in a crisis situation or ensure the absence of impacts on third parties or the environment. TOTAL also has implemented business continuity plans in order to continue or resume operations following a shutdown or incident. An inability to restore or replace critical capacity in a timely manner could prolong the impact of any disruption and could have a material adverse effect on the Group's business and operations. For more information on the Group's crisis management systems, see Item 4 - C. Other Matters - 1. Management and monitoring of industrial and environmental risks .

***While the Group's insurance coverage is in line with industry practice, TOTAL is not insured against all possible risks.***

The Group maintains insurance to protect itself against the risk of damage to Group property and/or business interruption to the Group's main refining and petrochemical sites. In addition, the Group also maintains worldwide third-party liability insurance coverage for all of its subsidiaries. The Group's insurance and risk management policies are described under Item 4 - C. Other Matters - 2. Insurance and risk management . TOTAL believes that its insurance coverage is in line with industry practice and sufficient to cover normal risks in its operations. However, the Group is not insured against all potential risks. In the event of a major environmental disaster, for example, TOTAL's liability may exceed the maximum coverage provided by its third-party liability insurance. The loss TOTAL could suffer in the event of such disaster would depend on all the facts and circumstances of the

event and would be subject to a whole range of uncertainties, including legal uncertainty as to the scope of liability for consequential damages, which may include economic damage not directly connected to the disaster. The Group cannot guarantee that it will not suffer any uninsured loss and there can be no guarantee, particularly in the case of a major environmental disaster or industrial accident, that such loss would not have a material adverse effect on the Group.

***TOTAL is subject to stringent environmental, health and safety laws in numerous countries and may incur material costs to comply with these laws and regulations.***

TOTAL's workforce and the public are exposed to risks inherent to the Group's operations that potentially could lead to loss of life, injuries, property damage or environmental damage and could result in regulatory action and legal liability against the entities of the Group and its officers, as well as damage to the Group's reputation.

TOTAL incurs, and will continue to incur, substantial expenditures to comply with increasingly complex laws and regulations aimed at protecting health, safety and the environment.

These expenditures include:

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costs incurred to prevent, control, eliminate or reduce certain types of air and water emissions, including those costs incurred in connection with measures taken to address climate change;  
remedial measures related to environmental contamination or accidents at various sites, including those owned by third parties;  
indemnification of individuals or entities claiming damages caused by accidents or by the Group's activities;  
increased production costs and costs related to changes in product specifications; and  
costs related to the decommissioning of drilling platforms and other facilities.

Such expenditures could have a material effect on the results of operations of the Group and its financial position.

Furthermore, in countries where the Group operates or plans to operate, the introduction of new laws and regulations, stricter enforcement or new interpretations of existing laws and regulations or the imposition of tougher license requirements may also cause the Group's entities to incur higher costs resulting from actions taken to comply with such laws and regulations, including:

- modifying operations;
- installing complementary pollution control equipment;
- implementing additional safety measures; and
- performing site clean-ups.

As a further result of, notably, the introduction of any new laws and regulations, the Group could also be compelled to curtail, modify or cease certain operations or implement temporary shutdowns of facilities, which could diminish the Group's productivity and have a material adverse impact on its results of operations.

All TOTAL entities monitor legal and regulatory developments in order to remain in compliance with local and international rules and standards for the assessment and management of industrial and environmental risks. With regard to the permanent shutdown of an activity, the Group's environmental contingencies and asset retirement obligations are addressed in the Asset retirement obligations and Provisions for environmental contingencies sections of the Group's Consolidated Balance Sheet (see Note 19 to the Consolidated Financial Statements). Future expenditures related to asset retirement obligations are accounted for in

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accordance with the accounting principles described in Note 1Q to the Consolidated Financial Statements.

***Laws and regulations related to climate change and its physical effects may adversely affect the Group's business.***

Growing public concern in a number of countries over greenhouse gas emissions and climate change, as well as a multiplication of stricter regulations in this area, could adversely affect the Group's businesses and product sales, increase its operating costs and reduce its profitability.

More of TOTAL's future production could come from unconventional sources in order to help meet the world's growing demand for energy. Since the energy intensity of oil and gas production from unconventional sources can be higher than that of production from conventional sources, the CO<sub>2</sub> emissions produced by the Group's activities may increase. Therefore, TOTAL may need to incur additional costs related to certain projects. For information concerning the regulation of CO<sub>2</sub> emission allowances in Europe, see Item 4 C. Other Matters 3.3.1. European Union CO<sub>2</sub> emission allowances.

Finally, TOTAL's businesses operate in varied locales where the potential physical impacts of climate change, including changes in weather patterns, are highly uncertain and may adversely impact the results of the Group's operations.

***TOTAL faces foreign exchange risks that could adversely affect its results of operations.***

The Group faces foreign exchange risks because a large percentage of its revenues and cash receipts are denominated in dollars, the international currency of petroleum sales, while a significant portion of its operating expenses and income taxes accrue in euros and other currencies. Movements between the dollar and euro or other currencies may adversely affect the Group's business by negatively impacting its booked revenues and income, and may also result in significant translation adjustments that impact its shareholders' equity as the Group's financial statements are presented in dollars.

***The Group is exposed to trading risks that could adversely affect its business.***

TOTAL's trading business is particularly sensitive to market risk and more specifically to price risk as a consequence of the volatility of oil prices, to liquidity risk (inability to buy or sell oil cargoes at quoted prices) and to performance risk (counterparty does not fulfill its contractual obligations). The Group uses various instruments such as futures, forwards, swaps and options on organized markets or over-the-counter markets to hedge against fluctuations in the price of crude oil, refined products, natural gas, power, coal, emissions and freight-rates. Although TOTAL believes it has established appropriate risk management procedures, large market fluctuations may adversely affect the Group's business and results of operations and make it more difficult to optimize revenues from the Group's oil and gas production and to obtain favorable pricing to supply the Group's refineries.

***Disruption of the Group's critical IT services or breaches of information security could adversely affect its operations.***

The businesses of the Group depend heavily on the reliability and security of its information technology (IT) systems. If the integrity of the IT systems were compromised due to, for example, technical failure, or cyber attack, the Group's business operations and assets could sustain serious damage, material intellectual property could be divulged and, in some cases, personal injury, environmental harm and regulatory violations could occur, potentially having a material adverse effect on the Group's results of operations, including profits.

TOTAL's IT department has developed and distributed governance and security rules that describe the recommended infrastructure, organization and procedures to maintain information systems that are appropriate to the organization's needs and to limit information security risks. These rules are implemented across the Group under the responsibility of the various business segments.

***TOTAL has activities in certain countries that are targeted by economic sanctions under relevant U.S. and EU laws, and if the Group's activities are not conducted in accordance with the relevant conditions, TOTAL could be sanctioned or otherwise penalized.***

Various members of the international community have targeted certain countries, including Cuba, Iran, Sudan, Syria and Russia, with economic sanctions and other restrictive measures. This section focuses on certain U.S. and European restrictions relevant to the Group. For certain disclosure concerning the Group's limited activities or presence in certain targeted countries, refer to Item 4 C. Other Matters 8. Cuba, Iran and Syria.

The United States has adopted various laws and regulations designed to restrict trade with Cuba, Iran, Sudan and Syria, and the U.S. Department of State has identified these countries as state sponsors of terrorism. The European Union (EU) has similar restrictions with respect to Iran and Syria. Since mid-2014, both the United States and the EU have adopted economic sanctions against various persons and entities in Russia in response to the situation in Ukraine. A violation by the Group of applicable laws or regulations could result in criminal and material financial penalties.

The U.S. Treasury Department's Office of Foreign Assets Control (referred to as OFAC) administers and enforces economic sanctions programs against the countries identified as state sponsors of terrorism, as well as other targeted countries, territories, entities and individuals, including those engaged in activities related to terrorism or the proliferation of weapons of mass destruction and other threats to the national security, foreign policy or economy of the United States. The activities that are restricted depend on the details of each particular sanctions program. Civil and criminal penalties, which are imposed on a per transaction



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basis for apparent violations, can be substantial. These OFAC sanctions apply to U.S. persons, activities taking place in the United States, and activities that are otherwise subject to U.S. jurisdiction.

TOTAL continues to closely monitor the possible impacts on all of its activities of the different economic sanctions regimes. TOTAL does not believe that its activities in targeted countries are in violation of applicable international economic sanctions administered by the United States, the European Union and other members of the international community. TOTAL cannot assure that current or future regulations or developments related to economic sanctions will not have a negative impact on its business or reputation.

Set forth below is additional information concerning U.S. and EU restrictions adopted against Iran, Syria and Russia.

### Restrictions against Iran

With respect to Iran, the United States has adopted a number of measures since 1996 that provide for the possible imposition of sanctions against non-U.S. companies engaged in certain activities in and with Iran, including in Iran's energy sector. The United States first adopted legislation in 1996 authorizing sanctions against non-U.S. companies doing business in Iran and Libya (the Iran and Libya Sanctions Act, referred to as ILSA). In 2006, ILSA was amended to concern only business in Iran (then renamed the Iran Sanctions Act, referred to as ISA). Pursuant to ISA, which has been amended and expanded since 1996, the

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President of the United States is authorized to initiate an investigation into the activities of non-U.S. companies in Iran's energy sector and to impose sanctions against persons found, amongst other activities, to have knowingly made investments of \$20 million or more in Iran's petroleum sector in any 12-month period. In May 1998, the U.S. government waived the application of ISA sanctions for TOTAL's investment in the South Pars gas field. This waiver, which has not been modified since it was granted, does not address any of TOTAL's other activities in Iran. In each of the years between the passage of ILSA and 2007, TOTAL made investments in Iran in excess of \$20 million (excluding the investments made as part of the development of South Pars). These investments will not be sanctioned by the U.S. authorities, provided that TOTAL meets certain commitments pursuant to a determination made by U.S. authorities under a Special Rule on September 30, 2010, as further described below. Since 2008, TOTAL's position in Iran essentially has consisted of being reimbursed for its past investments as part of buyback contracts signed between 1995 and 1999 with respect to permits on which the Group is no longer the operator. Since 2011, TOTAL has had no production in Iran.

ISA was amended in July 2010 by the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010 ( CISADA ), which expanded both the list of activities with Iran that could lead to sanctions and the list of restrictive measures available. TOTAL had already discontinued potentially sanctionable sales of refined petroleum products to Iran prior to CISADA's enactment. On September 30, 2010, the U.S. State Department announced that the U.S. government, pursuant to the Special Rule provision of ISA added by CISADA that allows it to avoid making a determination of sanctionability under ISA with respect to any party that provides certain assurances, would not make such a determination with respect to TOTAL. The U.S. State Department further indicated that, as long as TOTAL acts in accordance with its commitments, TOTAL will not be regarded as a company of concern for its past Iran-related activities.

Since the applicability of the Special Rule to TOTAL was announced by the U.S. State Department, the United States has imposed a number of additional measures targeting activities in Iran. TOTAL does not conduct activities that it believes would be sanctionable under these measures.

The Iran Threat Reduction and Syria Human Rights Act of 2012 ( ITRA ) added Section 13(r) to the Securities Exchange Act of 1934, as amended ( U.S. Exchange Act ), which requires TOTAL to disclose whether it or any of its affiliates has engaged during the calendar year in certain Iran-related activities, including those targeted under ISA, without regard to whether such activities are sanctionable under ISA, and any transaction or dealing with the Government of Iran that is not conducted pursuant to a specific authorization of the U.S. government (refer to Item 4 8.1. Iran , below). For any annual report that contains responsive Section 13(r) disclosure, an Iran Notice must be separately filed with the United States Securities and Exchange Commission ( SEC ). The SEC must notify the President and U.S. Congress, and the President must initiate an investigation and make a sanctions determination within 180 days after initiating the investigation. TOTAL believes that its Iran-related activities required to be disclosed by Section 13(r) are not sanctionable, and TOTAL has not been informed that it is at risk of possible imposition of sanctions for activities previously disclosed.

Moreover, many U.S. states have adopted legislation with respect to Iran requiring, in certain conditions, state pension funds to divest themselves of securities in any company with active business operations in Iran and state contracts not to be awarded

to such companies. State insurance regulators have adopted similar initiatives relating to investments by insurance companies in companies doing business with the Iranian oil and gas, nuclear and defense sectors. If TOTAL's presence in Iran were determined to fall within the prohibited scope of these laws, and TOTAL were not to qualify for any available exemptions, certain U.S. institutions holding interests in TOTAL may be required to sell their interests. If significant, sales of securities resulting from such laws and/or regulatory initiatives could have an adverse effect on the prices of TOTAL's securities.

The EU has also adopted sanctions measures with regard to Iran, including a set of restrictive measures adopted in July and October 2010. Among other things, the supply of key equipment and technology in the following sectors of the oil and gas industry in Iran are prohibited: refining, liquefied natural gas (LNG), exploration and production. The prohibition extends to technical assistance, training and financial assistance in connection with such items. Extension of loans or credit to, acquisition of shares in, entry into joint ventures with or other participation in enterprises in Iran (or Iranian-owned enterprises outside of Iran) engaged in any of the targeted sectors also is prohibited. Moreover, with respect to restrictions on transfers of funds and on financial services, any transfer of at least €400,000 or equivalent to or from an Iranian individual or entity shall require a prior authorization of the competent authorities of the EU Member States. TOTAL conducts its activities in compliance with these EU measures.

On January 23, 2012, the Council of the EU prohibited the purchase, import and transport of Iranian oil and petroleum and petrochemical products by European persons and by entities constituted under the laws of an EU Member State. Prior to that date, TOTAL had ceased these now-prohibited activities.

TOTAL continues to closely monitor the Joint Plan of Action announced late 2013 among Iran and the P5+1 countries (China, France, Russia, the United Kingdom and the United States, as well as Germany) regarding limits on Iran's nuclear activities and the suspension of certain United States and EU sanctions regarding Iran. Negotiations between Iran and the P5+1 were extended in November 2014 and are ongoing.

#### **Restrictions against Syria**

With respect to Syria, the EU adopted measures in May 2011 that prohibit the supply of certain equipment to Syria, as well as certain financial and asset transactions with respect to a list of named individuals and entities. These measures apply to European persons and to entities constituted under the laws of an EU Member State. In September 2011, the EU adopted further measures, including, notably, a prohibition on the purchase, import or transportation from Syria of crude oil and petroleum products. Since early September 2011, the Group ceased to purchase hydrocarbons from Syria. On December 1, 2011, the EU extended

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sanctions against, among others, three state-owned Syrian oil firms, including General Petroleum Corporation, TOTAL's co-contracting partner in the production sharing agreement signed in 1988 (Deir Ez Zor licence) and the Tabiyeh contract. The United States also has various measures regarding Syria. Since early December 2011, the Group has ceased its activities that contributed to oil and gas production in Syria.

### Restrictions against Russia

Since July 2014, members of the international community have adopted economic sanctions against certain Russian persons and entities, including various entities operating in the financial, energy and defense sectors, in response to the situation in Ukraine.

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Among other things, OFAC has adopted economic sanctions targeting OAO Novatek, a Russian company listed on the Moscow Interbank Currency Exchange and the London Stock Exchange in which the Group held an 18.24% interest as of December 31, 2014 through its subsidiary TOTAL E&P Holdings Russia, and entities in which OAO Novatek (individually or with other similarly targeted persons or entities collectively) owns an interest of at least 50%. The OFAC sanctions applicable to OAO Novatek prohibit U.S. persons from transacting in, providing financing for or otherwise dealing in debt issued after July 16, 2014 of greater than 90 days maturity, including OAO Yamal LNG, which is jointly-owned by OAO Novatek (60%), TOTAL E&P Yamal (20%) and CNODC (20%), a subsidiary of CNPC. Consequently, the use of the U.S. dollar for such financing is effectively prohibited.

In order to comply with these sanctions, the financing plan for the Yamal LNG project is being reviewed, and the project's partners are engaged in efforts to develop a financing plan in line with the applicable regulations.

TOTAL continues to closely monitor the different international economic sanctions with respect to its activities in Russia. Within this framework, the Group is filing the requests for prior authorizations required by EU restrictive measures concerning technical assistance, brokering services, financing and financial assistance related to certain technologies. The Treasury Department of the French Ministry of Finance, the competent authority on the subject, issued authorizations specifically for the projects of Yamal LNG, Kharyaga and Termokarstovoye. The United States has also imposed export controls and restrictions on the export of goods, services, and technologies for use in certain Russian energy projects that may affect TOTAL's activities in Russia.

As of December 31, 2014, the Group held 19% of its proved reserves in Russia.

**ITEM 4. INFORMATION ON THE COMPANY**

**A. HISTORY AND DEVELOPMENT**

TOTAL S.A., a French *société anonyme* (limited liability company) incorporated in France on March 28, 1924, is, together with its subsidiaries and affiliates, the fourth largest publicly-traded integrated international oil and gas company<sup>(1)</sup>.

With operations in more than 130 countries, TOTAL is engaged in every sector of the oil industry, including upstream (hydrocarbon exploration, development and production) and downstream (refining, petrochemicals, specialty chemicals, trading and shipping of crude oil and petroleum products and marketing). TOTAL also operates in the power generation and renewable energy sectors.

TOTAL began its Upstream operations in the Middle East in 1924. Since then, the Company has grown and expanded its operations worldwide. In early 1999, the Company acquired control of PetroFina S.A. (hereafter referred to as PetroFina or

Fina) and, in early 2000, the Company acquired control of Elf Aquitaine S.A. (hereafter referred to as Elf Aquitaine or Elf). For information concerning the Group's principal capital expenditures and divestitures, see Item 4 B. Business Overview 5. Investments, Item 5 C. Results 2012-2014 and Item 5 D. Liquidity and Capital Resources.

The Company's corporate name is TOTAL S.A. Its registered office is 2, place Jean Millier, La Défense 6, 92400 Courbevoie, France. Its telephone number is +33 (0)1 47 44 45 46.

TOTAL S.A. is registered in France at the Nanterre Trade Register under the registration number 542 051 180. The length of the life of the Company is 99 years from March 22, 2000, unless it is dissolved or extended prior to such date.

## B. BUSINESS OVERVIEW

TOTAL provides energy-related products and services to customers around the world by discovering, producing and transforming oil and gas, as well as other natural resources (solar and biomass).

The Group's goal is to be a global, integrated energy company – a leading international oil company and a world-class operator in gas, petrochemicals, solar energy and, tomorrow, biomass. To realize this goal, TOTAL leverages its integrated business model, which enables it to capture synergies between the different business segments of the Group. Together, TOTAL's commitments to ethical practices, safety and corporate social responsibility form a shared foundation allowing the achievement of four strategic objectives:

- driving profitable, sustainable growth in exploration and production;
- developing competitive, top-tier refining and petrochemical complexes;
- responding to customer needs by delivering innovative solutions; and
- consolidating the Group's leadership in solar energy and continuing to explore biomass, in order to offer the most appropriate energy solutions.

At the core of TOTAL's strategy is a strong belief that energy is vital, drives progress and must be made available to everyone. Energy is a precious resource that must be used wisely.

The Group is helping to produce the growing amount of energy that people around the planet need to live and thrive, while ensuring that its operations consistently deliver economic, social and environmental benefits. TOTAL is meeting this challenge with and for its fellow employees, its stakeholders and the local communities, in ways that exceed what is generally expected.

Respect, responsibility and exemplary behavior are the values that underpin TOTAL's Code of Conduct. It is through strict adherence to these core values and fundamental principles that TOTAL will be able to build strong and sustainable growth for the Group and its stakeholders.

*(1) Based on market capitalization (in dollars) as of December 31, 2014.*

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## Item 4 - B.1. Geographic Breakdown of Activities

**1. GEOGRAPHIC BREAKDOWN OF ACTIVITIES**

TOTAL's worldwide operations in 2014 were conducted through three business segments: Upstream, Refining & Chemicals and Marketing & Services. The table below gives information on the

geographic breakdown of TOTAL's activities and is taken from Note 5 to the Consolidated Financial Statements included elsewhere herein.

(M\$)	France	Rest of Europe	North America	Africa	Rest of world	Total
<b>2014</b>						
Non-Group sales	51,471	114,747	23,766	23,281	22,857	<b>236,122</b>
Property, plant and equipment, intangible assets, net	4,350	25,137	16,064	41,405	34,602	<b>121,558</b>
Capital expenditures	1,266	5,880	3,658	9,798	9,907	<b>30,509</b>
<b>2013</b>						
Non-Group sales	57,650	128,661	22,332	23,146	19,936	<b>251,725</b>
Property, plant and equipment, intangible assets, net	6,251	26,840	19,588	37,847	32,349	<b>122,875</b>
Capital expenditures	1,772	6,289	4,157	10,705	11,508	<b>34,431</b>
<b>2012</b>						
Non-Group sales	59,077	133,439	22,675	23,025	18,821	<b>257,037</b>
Property, plant and equipment, intangible assets, net	6,017	23,349	20,082	32,983	26,011	<b>108,442</b>
Capital expenditures	2,041	5,660	4,045	9,346	8,383	<b>29,475</b>

**2. UPSTREAM SEGMENT**

TOTAL's Upstream segment includes the activities of Exploration & Production and Gas & Power. The Group has exploration and production activities in more than fifty countries and produces oil or gas in approximately thirty countries. Gas & Power conducts activities downstream from production related to natural gas, liquefied natural gas (LNG) and liquefied petroleum gas (LPG), as well as power generation and trading, and other activities.

**2.1. Exploration & Production****2.1.1. Exploration and development**

TOTAL's Exploration & Production activities aim at continuing to combine long-term growth and profitability at the level of the best actors of the industry.

TOTAL evaluates exploration opportunities based on a variety of geological, technical, political, economic (including taxes and license terms), environmental and societal factors and on projected oil and gas prices. Discoveries of new fields and extensions of existing fields have brought an additional 2,446 Mboe to the Upstream segment's proved reserves during the 3-year period ended December 31, 2014 (before deducting production and sales of reserves in place and adding any acquisitions of reserves in place during this period). The net level of revisions during this 3-year period is +181 Mboe, which was due to the overall positive

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revisions in field behaviors partially offset by the negative impacts of the increase of bitumen price in Canada (from \$50.4/b in 2013 to \$60.3/b in 2014 for Synbit), the increase in U.S. onshore gas price (from 2011 (\$4.21/MBtu) to 2012 (\$2.85/MBtu) for Henry Hub) and a perimeter change in two projects.

In 2014, the exploration investments of consolidated subsidiaries amounted to \$2,608 million (excluding exploration bonuses), primarily in Angola, Brazil, Norway, South Africa, Iraq, Malaysia, Côte d'Ivoire, Indonesia and Libya. Exploration investments of consolidated subsidiaries amounted to \$2,926 million in 2013 and \$2,701 million in 2012. For 2015, the exploration budget has been reduced to \$1.9 billion to reflect the new market environment.

The Group's consolidated Exploration & Production subsidiaries' organic investments amounted to \$23 billion in 2014, primarily in Angola, Norway, Australia, Canada, Nigeria, the Republic of the Congo, Russia, the United Kingdom, Indonesia, Gabon, the United

States and Kazakhstan. The Group's consolidated Exploration & Production subsidiaries' organic investments amounted to \$24 billion in 2013 and \$20 billion in 2012.

### 2.1.2. Reserves

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the United States Securities & Exchange Commission (SEC) Rule 4-10 of Regulation S-X as amended by the SEC Modernization of Oil and Gas Reporting release issued on December 31, 2008. Proved reserves are estimated using geological and engineering data to determine with reasonable certainty whether the crude oil or natural gas in known reservoirs is recoverable under existing regulatory, economic and operating conditions.

TOTAL's oil and gas reserves are consolidated annually, taking into account, among other factors, levels of production, field reassessments, additional reserves from discoveries and acquisitions, disposal of reserves and other economic factors.

Unless otherwise indicated, any reference to TOTAL's proved reserves, proved developed reserves, proved undeveloped reserves and production reflects the Group's entire share of such reserves or such production. TOTAL's worldwide proved reserves include the proved reserves of its consolidated subsidiaries as well as its proportionate share of the proved reserves of equity affiliates.

For further information concerning changes in TOTAL's proved reserves for the years ended December 31, 2014, 2013 and 2012, refer to Supplemental Oil and Gas Information (Unaudited).

The reserves estimation process involves making subjective judgments. Consequently, estimates of reserves are not exact measurements and are subject to revision under well-established control procedures.

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*(1) Effective July 1, 2012, the Upstream segment no longer includes the activities of New Energies, which are now reported with Marketing & Services. As a result, certain information has been restated according to the new organization.*

*(2) For Exploration & Production, organic investments include exploration investments, net development investments and net financial investments.*

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Item 4 - B.2. Upstream Segment

The reserves booking process requires, among other things:

internal peer reviews of technical evaluations to ensure that the SEC definitions and guidance are followed; and  
that management makes significant funding commitments towards the development of the reserves prior to booking.  
For further information regarding the preparation of reserves estimates, see Supplemental Oil and Gas Information (Unaudited) .

**2.1.3. Proved reserves for years 2014, 2013 and 2012**

In accordance with the amended Rule 4-10 of Regulation S-X, proved reserves at December 31 are calculated using a 12-month average price determined as the unweighted arithmetic average of the first-day-of-the-month price for each month of the relevant year unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The reference prices for 2014, 2013 and 2012 were, respectively, \$101.27/b, \$108.02/b and \$111.13/b for Brent crude.

As of December 31, 2014, TOTAL's combined proved reserves of oil and gas were 11,523 Mboe (50% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas liquids and bitumen) represented approximately 46% of these reserves and natural gas the remaining 54%. These reserves were located in Europe (mainly in Norway and the United Kingdom), in Africa (mainly in Angola, Gabon, Nigeria and the Republic of the Congo), in the Americas (mainly in Canada, Argentina, the United States and Venezuela), in the Middle East (mainly in Qatar, the United Arab Emirates and Yemen), and in Asia (mainly in Australia, Kazakhstan and Russia).

As of December 31, 2013, TOTAL's combined proved reserves of oil and gas were 11,526 Mboe (49% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas liquids and bitumen) represented approximately 47% of these reserves and natural gas the remaining 53%.

As of December 31, 2012, TOTAL's combined proved reserves of oil and gas were 11,368 Mboe (51% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas liquids and bitumen) represented approximately 50% of these reserves and natural gas the remaining 50%.

**2.1.4. Sensitivity to oil and gas prices**

Changes in the price used as a reference for the proved reserves estimation result in non-proportionate inverse changes in proved reserves associated with production sharing and risked service contracts (which together represent approximately 21% of TOTAL's reserves as of December 31, 2014). Under such contracts, TOTAL is entitled to a portion of the production, the sale of which is meant to cover expenses incurred by the Group. As oil prices increase, fewer barrels are necessary to cover the same amount of expenses. Moreover, the number of barrels recoverable under these contracts may vary according to criteria such as cumulative production, the rate of return on investment or the income-cumulative expenses ratio. This decrease is partly offset by an extension of the duration over which fields can be produced economically. However, the increase in reserves due to extended field life resulting from higher prices is generally less than the decrease in reserves under production sharing or risked service contracts due to such higher prices. As a result, higher prices usually lead to a decrease in TOTAL's reserves.

Furthermore, changes in the reference price per barrel used for the proved reserves estimation have an impact on the volume of royalties in Canada and thus TOTAL's share of proved reserves.

Lastly, for any type of contract, a significant decrease of the reference price of petroleum products may involve a reduction of proved reserves.

**2.1.5. Production**

For the full year 2014, average daily oil and gas production was 2,146 kboe/d compared to 2,299 kboe/d in 2013 and 2,300 kboe/d in 2012. Liquids accounted for approximately 48% and natural gas for approximately 52% of TOTAL's combined liquids and natural gas production in 2014.

The tables on the next pages set forth by geographic area TOTAL's annual and average daily production of liquids and natural gas for each of the last three years.

Consistent with industry practice, TOTAL often holds a percentage interest in its fields rather than a 100% interest, with the balance being held by joint venture partners (which may include other international oil companies, state-owned oil companies or government entities). TOTAL's entities frequently act as operator (the party responsible for technical production) on acreage in which it holds an interest. See the table Presentation of production activities by geographic area on the



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following pages for a description of TOTAL's producing assets.

As in 2013 and 2012, substantially all of the liquids production from TOTAL's Upstream segment in 2014 was marketed by the Trading & Shipping division of TOTAL's Refining & Chemicals segment (see the table Trading's crude oil sales and supply and refined products sales in 3.2.1. Trading & Shipping, below).

The majority of TOTAL's natural gas production is sold under long-term contracts. However, its North American production, and part of its production from the United Kingdom, Norway and Argentina, is sold on the spot market. The long-term contracts under which TOTAL sells its natural gas usually provide for a price related to, among other factors, average crude oil and other petroleum product prices, as well as, in some cases, a cost-of-living index. Though the price of natural gas tends to fluctuate in line with crude oil prices, a slight delay may occur before changes in crude oil prices are reflected in long-term natural gas prices. Due to the interaction between the contract price of natural gas and crude oil prices, contract prices are not usually affected by short-term market fluctuations in the spot price of natural gas.

Some of TOTAL's long-term contracts, notably in Indonesia, Nigeria, Norway, Qatar, Thailand and Yemen, specify the delivery of quantities of natural gas that may or may not be fixed and determinable. Such delivery commitments vary substantially, both in duration and in scope, from contract to contract throughout the world. For example, in some cases, contracts require delivery of natural gas on an as-needed basis, and, in other cases, contracts call for the delivery of varied amounts of natural gas over different periods of time. Nevertheless, TOTAL estimates the fixed and determinable quantity of gas to be delivered over the period 2015-2017 to be 3,782 Bcf. The Group expects to satisfy most of these obligations through the production of its proved reserves of natural gas, with, if needed, additional sourcing from spot market purchases (refer to Supplemental Oil and Gas Information (Unaudited)).

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## Item 4 - B.2. Upstream Segment

**2.1.6. Production by region**

The following table sets forth the Group's annual liquids and natural gas production by region.

	2014			2013			2012		
	Liquids Mb	Natural gas Bcf <sup>(b)</sup>	Total Mboe	Liquids Mb	Natural gas Bcf <sup>(b)</sup>	Total Mboe	Liquids Mb	Natural gas Bcf <sup>(b)</sup>	Total Mboe
<b>Africa</b>	<b>191</b>	<b>253</b>	<b>240</b>	<b>194</b>	<b>255</b>	<b>245</b>	<b>210</b>	<b>257</b>	<b>260</b>
Algeria	2	29	7	2	30	8	2	33	8
Angola	70	20	73	64	23	68	63	16	65
Gabon	20	5	21	20	6	22	20	7	21
Libya	10		10	18		18	23		23
Nigeria	57	187	94	58	187	95	63	190	102
The Congo, Republic of	32	13	35	32	10	34	39	11	41
<b>North America</b>	<b>14</b>	<b>104</b>	<b>33</b>	<b>10</b>	<b>93</b>	<b>27</b>	<b>9</b>	<b>90</b>	<b>25</b>
Canada <sup>(a)</sup>	4		4	5		5	4		4
United States	10	104	28	5	93	22	5	90	21
<b>South America</b>	<b>18</b>	<b>219</b>	<b>57</b>	<b>20</b>	<b>229</b>	<b>61</b>	<b>22</b>	<b>249</b>	<b>66</b>
Argentina	3	134	27	5	134	28	4	144	30
Bolivia	1	51	11	1	47	10	1	45	10
Colombia							0	8	2
Trinidad & Tobago				1	19	4	1	26	6
Venezuela	14	34	19	13	29	18	14	26	18
<b>Asia-Pacific</b>	<b>11</b>	<b>430</b>	<b>87</b>	<b>11</b>	<b>427</b>	<b>86</b>	<b>10</b>	<b>397</b>	<b>81</b>
Australia		8	1		9	1		11	2
Brunei	1	24	5	1	22	5	1	20	4
China		23	4		17	3		3	0
Indonesia	7	217	47	6	221	48	6	221	48
Myanmar		49	6		47	6		46	6
Thailand	4	108	22	4	112	23	3	97	20
<b>CIS</b>	<b>13</b>	<b>414</b>	<b>91</b>	<b>12</b>	<b>382</b>	<b>83</b>	<b>10</b>	<b>332</b>	<b>71</b>
Azerbaijan	1	22	5	2	30	7	1	23	6
Russia	12	393	86	10	352	76	8	308	65
<b>Europe</b>	<b>60</b>	<b>397</b>	<b>133</b>	<b>61</b>	<b>449</b>	<b>143</b>	<b>72</b>	<b>460</b>	<b>156</b>
France		3	1	0	16	3	1	21	5
The Netherlands	0	62	11	0	71	13	0	67	12
Norway	49	210	88	50	210	89	58	227	100
United Kingdom	11	122	32	11	152	38	13	144	39
<b>Middle East</b>	<b>70</b>	<b>396</b>	<b>143</b>	<b>118</b>	<b>422</b>	<b>196</b>	<b>114</b>	<b>361</b>	<b>180</b>
United Arab Emirates	42	22	46	90	26	95	85	26	90
Iraq	4	0	4	3	0	3	2		2
Oman	9	22	13	9	24	14	9	22	14
Qatar	12	203	48	13	204	50	14	204	51
Yemen	3	148	31	4	168	35	4	109	24
<b>Total production</b>	<b>377</b>	<b>2,213</b>	<b>783</b>	<b>426</b>	<b>2,257</b>	<b>839</b>	<b>445</b>	<b>2,146</b>	<b>840</b>
<b>Including share of equity affiliates</b>	<b>73</b>	<b>726</b>	<b>208</b>	<b>119</b>	<b>714</b>	<b>251</b>	<b>112</b>	<b>597</b>	<b>223</b>
Angola		4	1		6	1			
Venezuela	14	2	14	13	3	14	14	3	15
United Arab Emirates	40	19	43	88	22	92	82	22	87
Oman	8	22	12	8	24	13	8	22	12
Qatar	3	139	28	3	141	28	3	133	27
Yemen		147	27		167	31		109	20
Russia	9	392	83	7	351	72	5	308	62

<sup>(a)</sup> The Group's production in Canada consists of bitumen only. All of the Group's bitumen production is in Canada.

<sup>(b)</sup> Including fuel gas (155 Bcf in 2014, 151 Bcf in 2013, 144 Bcf in 2012).



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Item 4 - B.2. Upstream Segment

The following table sets forth the Group's average daily liquids and natural gas production by region.

	2014			2013			2012		
	Liquids kb/d	Natural gas Mcf/d <sup>(b)</sup>	Total kboe/d	Liquids kb/d	Natural gas Mcf/d <sup>(b)</sup>	Total kboe/d	Liquids kb/d	Natural gas Mcf/d <sup>(b)</sup>	Total kboe/d
<b>Africa</b>	<b>522</b>	<b>693</b>	<b>657</b>	<b>531</b>	<b>699</b>	<b>670</b>	<b>574</b>	<b>705</b>	<b>713</b>
Algeria	5	79	20	5	82	21	6	90	23
Angola	191	54	200	175	62	186	172	44	179
Gabon	55	14	58	55	16	59	54	19	57
Libya	27		27	50		50	62		62
Nigeria	156	511	257	158	511	261	173	521	279
The Congo, Republic of	88	35	95	88	28	93	107	31	113
<b>North America</b>	<b>39</b>	<b>285</b>	<b>90</b>	<b>28</b>	<b>256</b>	<b>73</b>	<b>25</b>	<b>246</b>	<b>69</b>
Canada <sup>(a)</sup>	12		12	13		13	12		12
United States	27	285	78	15	256	60	13	246	57
<b>South America</b>	<b>50</b>	<b>599</b>	<b>157</b>	<b>54</b>	<b>627</b>	<b>166</b>	<b>59</b>	<b>682</b>	<b>182</b>
Argentina	9	367	75	13	366	78	12	394	83
Bolivia	4	139	30	4	129	28	3	124	27
Colombia							1	23	6
Trinidad & Tobago				2	52	12	4	70	16
Venezuela	37	93	52	35	80	48	39	71	50
<b>Asia-Pacific</b>	<b>30</b>	<b>1,178</b>	<b>238</b>	<b>30</b>	<b>1,170</b>	<b>235</b>	<b>27</b>	<b>1,089</b>	<b>221</b>
Australia		23	4		25	4		29	5
Brunei	2	66	15	2	59	13	2	54	12
China		63	12		46	8		7	1
Indonesia	18	594	130	17	605	131	16	605	132
Myanmar		135	17		129	16		127	16
Thailand	10	297	60	11	306	63	9	267	55
<b>CIS</b>	<b>36</b>	<b>1,135</b>	<b>249</b>	<b>32</b>	<b>1,046</b>	<b>227</b>	<b>27</b>	<b>909</b>	<b>195</b>
Azerbaijan	3	59	14	5	82	20	4	64	16
Russia	33	1,076	235	27	964	207	23	845	179
<b>Europe</b>	<b>165</b>	<b>1,089</b>	<b>364</b>	<b>168</b>	<b>1,231</b>	<b>392</b>	<b>197</b>	<b>1,259</b>	<b>427</b>
France		9	2	1	45	9	2	58	13
The Netherlands	1	171	31	1	195	35	1	184	33
Norway	135	576	242	136	575	243	159	622	275
United Kingdom	29	333	89	30	416	105	35	395	106
<b>Middle East</b>	<b>192</b>	<b>1,084</b>	<b>391</b>	<b>324</b>	<b>1,155</b>	<b>536</b>	<b>311</b>	<b>990</b>	<b>493</b>
United Arab Emirates	115	61	127	247	71	260	233	70	246
Iraq	12	1	12	7	1	7	6		6
Oman	24	61	36	24	66	37	24	61	37
Qatar	32	555	132	36	558	137	38	560	139
Yemen	9	406	84	10	459	95	10	299	65
<b>Total production</b>	<b>1,034</b>	<b>6,063</b>	<b>2,146</b>	<b>1,167</b>	<b>6,184</b>	<b>2,299</b>	<b>1,220</b>	<b>5,880</b>	<b>2,300</b>
<b>Including share of equity affiliates</b>	<b>200</b>	<b>1,988</b>	<b>571</b>	<b>325</b>	<b>1,955</b>	<b>687</b>	<b>308</b>	<b>1,635</b>	<b>611</b>
Angola		10	2		16	3			
Venezuela	37	6	38	35	7	37	38	7	40
United Arab Emirates	109	51	118	240	61	253	225	61	237
Oman	23	61	34	23	66	35	23	60	34
Qatar	7	381	77	8	385	78	7	364	74
Yemen		404	75		458	84		299	55
Russia	24	1,075	227	19	962	197	15	844	171

<sup>(a)</sup> The Group's production in Canada consists of bitumen only. All of the Group's bitumen production is in Canada.

<sup>(b)</sup> Including fuel gas (426 Mcf/d in 2014, 415 Mcf/d in 2013, 394 Mcf/d in 2012).



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## Item 4 - B.2. Upstream Segment

**2.1.7. Presentation of production activities by region**

The table below sets forth, by country, the producing assets of the Group's entities, the year in which the activities commenced, the interest held in each asset and whether a Group entity is operator of the asset.

TOTAL's producing assets as of December 31, 2014 <sup>(a)</sup>			
	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
<b>Africa</b>			
<b>Algeria</b>	<b>1952</b>		Tin Fouye Tabankort (35.00%)
<b>Angola</b>	<b>1953</b>	Girassol, Jasmim, Rosa, Dalia, Pazflor, CLOV (Block 17) (40.00%)	Cabinda Block 0 (10.00%) Kuito, BBLT, Tombua-Landana (Block 14) (20.00%)(b)
<b>Gabon</b>	<b>1928</b>	Anguille (100.00%) Anguille Nord-Est (100.00%) Anguille Sud-Est (100.00%) Atora (40.00%) Avocette (57.50%) Ayol Marine (100.00%) Baliste (50.00%) Barbier (100.00%) Baudroie Marine (50.00%) Baudroie Nord Marine (50.00%) Coucal (57.50%) Girelle (100.00%) Gonelle (100.00%) Grand Anguille Marine (100.00%) Grondin (100.00%) Hylia Marine (75.00%) Lopez Nord (100.00%) Mandaros (100.00%)	Angola LNG (13.60%)

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		M Boukou (57.50%)	
		M Boumba (100.00%)	
		Mérou Sardine Sud (50.00%)	
		Pageau (100.00%)	
		Port Gentil Océan (100.00%)	
		Port Gentil Sud Marine (100.00%)	
		Tchengue (100.00%)	
		Torpille (100.00%)	
		Torpille Nord Est (100.00%)	
<b>Libya</b>	<b>1959</b>		Rabi Kounga (47.50%) zones 15, 16 & 32 (75.00%)(c)
			zones 70 & 87 (75.00%)(c)
			zones 129 & 130 (30.00%)(c)
			zones 130 & 131 (24.00%)(c)
<b>Nigeria</b>	<b>1962</b>	OML 58 (40.00%)	
		OML 99 Amenam-Kpono (30.40%)	
		OML 100 (40.00%)	
		OML 102 (40.00%)	OML 102-Ekanga (40.00%)
		OML 130 (24.00%)	Shell Petroleum Development Company (SPDC 10.00%)
			OML 118-Bonga (12.50%)
			OML 138 (20.00%)

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Item 4 - B.2. Upstream Segment

TOTAL's producing assets as of December 31, 2014 <sup>(a)</sup>			
	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
<b>The Congo, Republic of</b>	<b>1968</b>	Kombi-Likalala-Libondo (65.00%)  Moho Bilondo (53.50%)  Nkossa (53.50%)  Nsoko (53.50%)  Sendji (55.25%)  Tchendo (65.00%)  Tchibeli-Litanzi-Loussima (65.00%)  Tchibouela (65.00%) Yanga (55.25%)	Loango (42.50%)  Zatchi (29.75%)
<b>North America</b>			
<b>Canada</b>	<b>1999</b>		Surmont (50.00%)
<b>United States</b>	<b>1957</b>		Several assets in the Barnett Shale area (25.00%) <sup>(d)</sup> Several assets in the Utica Shale area (25.00%) <sup>(d)</sup> Chinook (33.33%) Tahiti (17.00%)
<b>South America</b>			
<b>Argentina</b>	<b>1978</b>	Aguada Pichana (27.27%)  Aguada San Roque (24.71%)  Aries (37.50%)  Cañadon Alfa Complex (37.50%)  Carina (37.50%)  Hidra (37.50%)  Kaus (37.50%)	
<b>Bolivia</b>	<b>1995</b>		Sierra Chata (2.51%) San Alberto (15.00%) San Antonio (15.00%)  Itaú (41.00%) PetroCedeño (30.32%) Yucal Placer (69.50%)
<b>Asia-Pacific</b>			
<b>Australia</b>	<b>2005</b>		Various fields in UJV GLNG (27.50%) <sup>(e)</sup>
<b>Brunei</b>	<b>1986</b>	Maharaja Lela Jamalulalam (37.50%)	
<b>China</b>	<b>2006</b>		South Sulige (49.00%)
<b>Indonesia</b>	<b>1968</b>	Bekapai (50.00%)  Handil (50.00%)	



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		Peciko (50.00%)	
		Sisi-Nubi (47.90%)	
		South Mahakam (50.00%)	
		Tambora (50.00%)	
		Tunu (50.00%)	
			Badak (1.05%)
			Nilam-gas and condensates (9.29%) Nilam-oil (10.58%)
			Ruby-gas and condensates (15.00%)
<b>Myanmar</b>	<b>1992</b>	Yadana (31.24%)	Bongkot (33.33%)
<b>Thailand</b>	<b>1990</b>		
<b>Commonwealth of Independant States</b>			
<b>Kazakhstan</b>	<b>1992</b>		Kashagan (16.81%)
<b>Russia</b>	<b>1991</b>	Kharyaga (40.00%)	
			Several fields through the participation in OAO Novatek (18.24%)

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## Item 4 - B.2. Upstream Segment

	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
Europe			
Norway	1965	Atla (40.00%)	
		Skirne (40.00%)	
			Åsgard (7.68%)
			Ekofisk (39.90%)
			Ekofisk South (39.90%)
			Eldfisk (39.90%)
			Embla (39.90%)
			Gimle (4.90%)
			Gungne (10.00%)
			Heimdal (16.76%)
			Huldra (24.33%)
			Islay (5.51%) <sup>(f)</sup>
			Kristin (6.00%)
			Kvitebjørn (5.00%)
			Mikkel (7.65%)
			Oseberg (14.70%)
			Oseberg East (14.70%)
			Oseberg South (14.70%)
			Sleipner East (10.00%)
			Sleipner West (9.41%)
			Snøhvit (18.40%)
			Stjerne (14.70%)
			Tor (48.20%)
			Troll I (3.69%)
			Troll II (3.69%)
			Tune (10.00%)

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			Tyrihans (23.15%)
			Visund (7.70%)
			Visund South (7.70%)
			Visund North (7.70%)
<b>The Netherlands</b>	<b>1964</b>	F6a gas (55.66%)	
		F6a oil (65.68%)	
		F15a Jurassic (38.20%)	
		F15a/F15d Triassic (32.47%)	
		F15d (32.47%)	
		J3a (30.00%)	
		K1a (40.10%)	
		K1b/K2a (60.00%)	
		K2c (60.00%)	
		K3b (56.16%)	
		K3d (56.16%)	
		K4a (50.00%)	
		K4b/K5a (36.31%)	
		K5b (50.00%)	
		K6/L7 (56.16%)	
		L1a (60.00%)	
		L1d (60.00%)	
		L1e (55.66%)	
		L1f (55.66%)	
		L4a (55.66%)	
		L4d (55.66%)	
			E16a (16.92%)
			E17a/E17b (14.10%)
			J3b/J6 (25.00%)
			K9ab-A (22.46%)
			Q16a (6.49%)
<b>United Kingdom</b>	<b>1962</b>	Alwyn North, Dunbar, Ellon, Forvie North, Grant, Jura, Nuggets (100.00%) Elgin-Franklin, West Franklin (46.17%) Gleneig (58.73%)	

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Islay (94.49%)<sup>(f)</sup>

Bruce (43.25%)

Markham unitized field (7.35%)

Keith (25.00%)

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Item 4 - B.2. Upstream Segment

	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
<b>Middle East</b>			
<b>U.A.E.</b>	<b>1939</b>	Abu Dhabi-Abu Al Bu Khoosh (75.00%)	Abu Dhabi offshore (13.33%)(g) GASCO (15.00%) ADGAS (5.00%) Halfaya (22.5%)(h) Various fields onshore (Block 6) (4.00%)(i)
<b>Iraq</b>	<b>1920</b>		
<b>Oman</b>	<b>1937</b>		
<b>Qatar</b>	<b>1936</b>	Al Khalij (100.00%)	Mukhaizna field (Block 53) (2.00%)(i) North Field-Bloc NF Dolphin (24.50%) North Field-Bloc NFB (20.00%) North Field-Qatargas 2 Train 5 (16.70%)
<b>Yemen</b>	<b>1987</b>	Kharir/Atuf (Block 10) (28.57%)	Yemen LNG (39.62%) Various fields onshore (Block 5) (15.00%)

(a) The Group's interest in the local entity is approximately 100% in all cases except for Total Gabon (58.28%), Total E&P Congo (85.00%) and certain entities in Abu Dhabi and Oman (see notes b through i below).

(b) Stake in the company Angola Block 14 BV (TOTAL 50.01%).

(c) TOTAL's stake in the foreign consortium.

(d) TOTAL's interest in the joint venture with Chesapeake.

(e) TOTAL's interest in unincorporated joint venture.

(f) The field of Islay extends partially in Norway. TOTAL E&P UK holds a 94.49% and TOTAL E&P Norge 5.51%

(g) Through ADMA (equity affiliate), TOTAL has a 13.33% interest in the operating company, Abu Dhabi Marine Operating Company.

(h) TOTAL holds an interest of 22.5% in the consortium.

(i) TOTAL holds an indirect interest of 4.00% in Petroleum Development Oman LLC, operator of Block 6, via its 10% interest in Private Oil Holdings Oman Ltd. TOTAL also has a 5.54% interest in the Oman LNG facility (trains 1 and 2), and an indirect participation of 2.04% through OLNQ in Qalhat LNG (train 3).

(j) TOTAL holds a direct interest of 2.00% in Block 53.

**2.1.7.1. Africa**

**In 2014, TOTAL's production in Africa was 657 kboe/d, representing 31% of the Group's overall production, compared with 670 kboe/d in 2013 and 713 kboe/d in 2012.**

In **South Africa**, TOTAL acquired an interest in the 11B-12B license (50%, operator) in September 2013. This license, which covers an area of 19,000 km<sup>2</sup>, is located approximately 175 km south of the South African coast in water depths ranging from 200 m to 1,800 m. The drilling of an exploration well, which began in July 2014 and stopped at the beginning of October 2014, should resume when all of the conditions permit.

In addition, the Group holds a technical cooperation license for the Outeniqua Block (100%), which covers approximately 76,000 km<sup>2</sup> and is located to the southwest of the 11B-12B license in water depths ranging from 400 m to 4,000 m.

In **Algeria**, TOTAL's production was 20 kboe/d during 2014, compared with 21 kboe/d in 2013 and 23 kboe/d in 2012. All of the Group's production in Algeria comes from the Tin Fouyé Tabankort (TFT) field (35%). TOTAL also has a 37.75% stake in the Timimoun gas development project.

The development of the Timimoun field continued in 2014. The plant construction contract was signed in February 2014 and the drilling rig contract in September 2014.

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TOTAL decided not to implement the Ahnet project and abandoned the Ain Enakhal exploration well.

In **Angola**, the Group's production in 2014 was 200 kboe/d, compared with 186 kboe/d in 2013 and 179 kboe/d in 2012. This production comes primarily from Blocks 0, 14 and 17. Recent highlights include the start-up of production on the Pazflor project in 2011 and the CLOV project in 2014, as well as the acquisition of interests in the exploration blocks 25, 39 and 40 in the Kwanza basin.

Deep offshore Block 17 (40%, operator) is TOTAL's principal asset in Angola. It is composed of four major producing hubs: Girassol, Dalia, Pazflor and CLOV. CLOV, the newest hub, was launched in 2010, started production in June 2014 and reached its plateau production of 160 kboe/d in September 2014. On the ultra-deep offshore Block 32 (30%, operator), the Kaombo project was launched in April 2014 to develop the discoveries in the southeast part of the block via two FPSOs (Floating Production Storage and Offloading facilities) with a capacity of 115 kb/d each. Production start-up is planned for 2017. The exploration and delineation of the center and north parts of the block is ongoing.

On Block 14 (20%<sup>(1)</sup>), production comes from the Tombua-Landana and Kuito fields as well as the BBLT project, comprising the Benguela, Belize, Lobito and Tomboco fields.

Block 14K (36.75%) is the offshore unitization zone between Angola (Block 14) and the Republic of the Congo (Haute Mer license). Launched in 2012, the development of the Lianzi field will be via a connection to the existing BBLT platform (Block 14). TOTAL's interest in the unitized block is held 10% through Angola Block 14 BV and 26.75% through Total E&P Congo.

On Block 0 (10%), the development of Mafumeira Sul was approved by the partners and the authorities in 2012. This project constitutes the second development phase of the Mafumeira field.

In April 2014, TOTAL sold its entire stake in Block 15/06 (15%).

<sup>(1)</sup> Interest held by the company Angola Block 14 BV (TOTAL 50.01%, INPEX Corporation 49.99% since February 2013).

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### **Item 4 - B.2. Upstream Segment**

TOTAL has interests in exploration blocks 17/06 (30%, operator) in the Lower-Congo basin and blocks 25 (35%, operator), 39 (15%) and 40 (40%, operator) in the deep offshore Kwanza basin. In 2014 and early 2015, the Group drilled pre-salt targets on blocks 25, 39 and 40. TOTAL relinquished its interest in Block 33 (58.67%, operator) in November 2014.

TOTAL is also developing its LNG activities through the Angola LNG project (13.6%), which includes a gas liquefaction plant near Soyo supplied in particular by the gas associated with production from Blocks 0, 14, 15, 17 and 18. LNG production started in June 2013 but various technical incidents required the extended shut down of the plant.

In **Côte d'Ivoire**, TOTAL is active in four deep offshore exploration licenses located 50 km to 100 km from the coast and covering approximately 5,200 km<sup>2</sup> at water depths ranging from 1,000 m to 3,000 m.

On the CI-100 license (60%, operator) located in the Tano basin, an initial exploration well (Ivoire-1X) was drilled in early 2013 at a water depth of more than 2,300 meters.

On the licenses CI-514 (54%, operator), CI-515 (45%) and CI-516 (45%) situated in the San Pedro basin, a 3D seismic survey was carried out in 2012 and three exploration wells were drilled in 2014.

In **Egypt**, TOTAL relinquished Block 4 (East El Burullus Offshore; 50% operator) at the end of the first exploration period in August 2014 after having drilled the Kala-1 well in 2013.

In September 2014, Total was awarded Block 2 (North El Mahala Onshore) located in the Nile delta.

In **Gabon**, the Group's production in 2014 was 58 kboe/d compared with 59 kboe/d in 2013 and 57 kboe/d in 2012. The Group's exploration and production activities in Gabon are mainly carried out by Total Gabon<sup>(1)</sup>.

As part of the redevelopment project (estimated production capacity 20 kboe/d) of the Anguille field (100%, operator), the AGM North platform was installed in 2012. Production from the platform started in 2013 and fourteen wells are now operational.

In the Torpille field (100%, operator), a 3D seismic survey is underway.

On the deep offshore Diaba license (42.5%, operator), an initial exploration well (Diaman-1B) was drilled in 2013 at a water depth of more than 1,700 m. This well revealed an accumulation of gas and condensates. A 3D seismic survey was acquired in the western part of the block in the fourth quarter of 2014. The Nguongui-updip well drilled on the Mutamba-Iroru license (50%) in 2012 revealed the presence of hydrocarbons.

On the Nziembou license (20%), the drilling of the Igongo-1X well revealed a multi-layer accumulation of oil and gas and the drilling of the Monbou 1 prospect was completed in early January 2015.

In **Kenya**, TOTAL has interests on the offshore L5 and L7 licenses (40%) and the L11a, L11b and L12 licenses (30% after selling 10% of the stake in December 2014) and is the operator of the L22 license (70%) located in the Lamu delta in water depths ranging from 1,000 m to 3,500 m.

In 2013, two exploration wells were drilled in Blocks L7 and L11b.

On the offshore L22 license, seabed core drilling operations were carried out in early 2014 and a 3D seismic survey was carried out, benefitting from synergies with the adjacent blocks.

In **Libya**, the Group's production in 2014 was 27 kb/d compared with 50 kb/d in 2013 and 62 kb/d in 2012. TOTAL is a 75% partner in the Mabruk (Blocks 70 and 87) and Al Jurf (Blocks 15, 16 and 32) zones operated by Mabruk Oil Operations, a company held by National Oil Corporation (NOC) and TOTAL. In addition, TOTAL is a partner in the El Sharara zone (which comprises Blocks 129 and Blocks 130 (30%<sup>(3)</sup>) and 130 and 131 (24%<sup>(3)</sup>)). Finally, TOTAL is the operator of the Block NC191 (100%<sup>(3)</sup>) exploration block.

The security situation in 2014 led the Group to gradually reduce the number of its personnel in Libya. Beginning in mid-2013 and through to the summer of 2014, production was affected by the blockade of most of the country's terminals and pipelines.

In the onshore Blocks 70 and 87 (Mabruk), production has been stopped since August 2013 due to the blockade of the Es Sider export terminal. Production resumed in September 2014 with the reopening of the terminal before being disrupted again mid-December due to the security situation near the Es Sider terminal; the field has not been producing since then.

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In the onshore Blocks 129, 130 and 131 (El Sharara), production was interrupted several times in 2014. Nevertheless, the exploration of these blocks continued in 2014 with the drilling of three wells.

In the offshore Blocks 15, 16 and 32 (Al Jurf), production has not been affected by the social unrest in the country. However, the A1-16/3 exploration well which began drilling at year-end 2013 was plugged and temporarily abandoned in August 2014.

In **Madagascar**, TOTAL is active on the Bemolanga 3102 license (60%, operator). A two-year extension of the exploration phase was approved by the local authorities in August 2014.

In **Morocco**, on the 100,000 km<sup>2</sup> Anzarane offshore reconnaissance contract which was granted in December 2011 to TOTAL and ONHYM (National Bureau of Petroleum and Mines), an extension was granted until December 2015. The processing and interpretation of a 3D seismic survey, acquired in 2013 in the southern part of the block, is ongoing.

In **Mauritania**, the Group holds exploration interests in the ultra-deep offshore C9 license (90%, operator) and the onshore Ta29 license (72%, operator) in the Taoudenni basin, both acquired in 2012.

On Block Ta29, following the results of the 2D seismic survey performed in 2012, studies are underway to assess the block. In 2013, TOTAL sold an 18% stake in Block Ta29, reducing its stake to 72%.

A 3D seismic survey campaign covering 4,700 km<sup>2</sup> was conducted on Block C9 in 2013.

Furthermore, at the end of the exploration period in July 2014, Blocks Ta7 and Ta8 (60%, operator) were relinquished to the authorities.

In **Mozambique**, TOTAL acquired a 40% stake in the production sharing contract for offshore zones 3 and 6 in 2012. Located in the Rovuma basin, these two blocks cover an area of 15,250 km<sup>2</sup> from the coast up to water depths of 2,500 m. Half of the area of the two blocks was relinquished in 2013. A 500 km<sup>2</sup> 3D seismic survey was carried out between year-end 2014 and beginning of 2015.

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<sup>(1)</sup> Total Gabon is a company under Gabonese law listed on Euronext Paris. TOTAL holds 58.28%, the Republic of Gabon holds 25% and the public float is 16.72%.

<sup>(2)</sup> TOTAL's stake in the foreign consortium.



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In **Nigeria**, the Group's production in 2014 was 257 kboe/d compared with 261 kboe/d in 2013 and 279 kboe/d in 2012. This decline was primarily due to the sharp increase in oil bunkering and a blockade of Nigeria LNG's export cargoes in 2013. Nigeria is the leading contributor to the Group's production.

TOTAL has been present in Nigeria since 1962 and operates five of the thirty seven oil mining leases (OML) in which it has interests and also holds interests in four oil prospecting licenses (OPL).

Regarding the principal variations in TOTAL's permits since 2012:

In September 2013, TOTAL was granted approval by the authorities to increase its stake in OPL 285 from 26.67% to 60%. In May 2013, TOTAL obtained the approval of the authorities for the renewal of OML 99, 100 and 102 for a period of twenty years.

On OML 138 (20%), TOTAL started production in the Usan offshore field in 2012, reaching 130 kboe/d in 2013. In 2014, the Ukot South-2B and Ukot South-3 exploration wells led to two oil discoveries. The Group is actively pursuing the sale process launched in November 2012, which was not able to close. TOTAL ceased to be the operator of OML 138 in February 2014.

Block 1 (48.6%, operator) of the Joint Development Zone was relinquished in September 2013, and OPL 221 was relinquished in November 2013.

In 2012, TOTAL sold its 10% stake in OML 30, 34 and 40, which were operated via the Shell Petroleum Development Company (SPDC) joint venture.

Furthermore, new sales processes for four blocks (OML 18, 24, 25 & 29) were launched in early 2014, with the sale of OML 24 finalized in November 2014, and those of OML 18 and OML 29 finalized in March 2015.

TOTAL continues to develop its operated assets, in particular:

OML 58 (40%, operator): as part of its joint venture with the Nigerian National Petroleum Corporation (NNPC), TOTAL is pursuing a project to increase the block's gas production capacity from 370 Mcf/d to 550 Mcf/d.

OML 102 (40%, operator): TOTAL achieved the flare-out portion of the Ofon Phase 2 project in December 2014. The associated gas from the Ofon field is now being compressed, evacuated to shore and monetized via Nigeria LNG (NLNG).

OML 130 (24%, operator): the development of the Egina field (capacity of 200 kboe/d) was launched in June 2013.

OML 99 (40%, operator): additional studies are underway for the development of the Ikike field.

TOTAL is also active in the LNG sector with a 15% stake in Nigeria LNG Ltd, which owns a liquefaction plant with a total capacity of 22 Mt/y. On Brass LNG, since the withdrawal of one of the partners, TOTAL's stake has temporarily increased from 17% to 20.48%. Studies are currently ongoing for a two train liquefaction plant with a 4.5 Mt/y capacity each.

The Group's non-operated production in Nigeria comes mainly from the SPDC joint venture, in which TOTAL holds a 10% stake. The sharp increase of oil bunkering in 2013, which continued in 2014, had a negative impact on onshore production, as well as on the integrity of the joint venture's facilities and the local environment.

In addition, TOTAL holds a stake in the deep offshore OML 118 (12.5%), including the Bonga field, which contributed 15 kboe/d to the Group's production in 2014. On OML 118, a pre-unitization agreement relating to the Bonga South West/Aparo discovery (10%) was signed in December 2013.

In **Uganda**, where TOTAL has been active since 2012, the Group holds a 33.33% interest in the EA-1, EA-1A and EA-2 licenses as

well as the Kingfisher license, located in the Lake Albert region. TOTAL is the operator of the EA-1 and EA-1A licenses and a partner on the other licenses.

On the EA-1 license, a campaign of wells, production tests and a 3D seismic survey were carried out between 2012 and mid-2014. As of year-end 2014, five development plans had been submitted to the authorities: Ngiri (submitted in December 2013), Jobi-Rii (submitted in June 2014) and Mpyo, Gunya and Jobi East (submitted in December 2014).

The EA-1A license expired in February 2013 following a campaign of five exploration wells that resulted in one discovery (Lyec). With the exception of the area relating to this discovery, the license has been returned to the authorities.

On the EA-2 license, a campaign of wells and production tests that began in 2012 was completed in 2014. Two development plans were submitted to the authorities in June 2013 (Kasamene and Wahrindi fields, as well as those of Kigogole, Ngege, Ngara and Nsoga).

The development plan for the Kingfisher field, which is located on the EA-3 production license, was approved by the authorities in September 2013.

The Kanywataba license expired in 2012 and was returned to the authorities.

In the **Republic of the Congo**, the Group's production in 2014 was 95 kboe/d compared with 93 kboe/d in 2013 and 113 kboe/d in 2012. The reduced production in 2013 was due to a planned shutdown on the Nkossa field. The decrease in production between 2012 and 2014 was due primarily to the natural decline of the fields. In December 2013, Qatar Petroleum International Upstream (QPI) purchased a 15% stake in the capital of Total E&P Congo via a share capital increase of

the subsidiary.

The Moho Bilondo offshore field (53.5%, operator) reached plateau production of 90 kboe/d in mid-2010. The Phase 1b (capacity of 40 kboe/d) and Moho North (capacity of 100 kboe/d) project was launched in March 2013, with production start-up planned in 2015 and 2016, respectively.

Block 14K (36.75%) corresponds to the offshore unitization zone between the Haute Mer license in the Republic of the Congo and Block 14 in Angola. The development of the Lianzi field was launched in 2012. TOTAL holds a 26.75% interest in the unitized block through Total E&P Congo and a 10% interest through Angola Block 14 BV.

In July 2013, TOTAL obtained the Haute Mer B license (34.62%, operator). The authorities approved the license in June 2014.

As part of the renewal of the Loango and Zatchi licenses, an agreement on the related contractual and fiscal conditions was signed in October 2013.

Following the approval of the authorities in June 2014, TOTAL's interests in these licenses decreased respectively from 50% to 42.50% for Loango and from 35% to 29.75% for Zatchi, with retroactive effect from October 2013.

In the Lake Albert region of the **Democratic Republic of the Congo**, the Block III (66.66%, operator) exploration license was granted in 2012 for an initial three-year period. As a result of the security situation in the eastern part of the country in 2012, the license was extended for one year. The prospecting program is limited to the northern portion of the license, which is outside the Virunga park.

In the **Republic of South Sudan**, TOTAL is negotiating a new contract with the authorities that would enable it to resume exploration activities in part of Block B. Since the independence of the Republic of South Sudan in 2011, TOTAL is no longer present in Sudan.

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#### 2.1.7.2. North America

**In 2014, TOTAL's production in North America was 90 kboe/d, representing 4% of the Group's total production, compared with 73 kboe/d in 2013 and 69 kboe/d in 2012.**

In **Canada**, the Group's production in 2014 was 12 kboe/d compared to 13 kboe/d in 2013 and 12 kboe/d in 2012. The Group's oil sands portfolio is focused around two themes: Steam Assisted Gravity Drainage (SAGD) on the Surmont (50%) asset, and mining at Fort Hills (39.2%). In addition, the Group holds stakes in a number of other oil sands leases, including Joslyn (38.25%, operator) and Northern Lights (50%, operator).

On Surmont, in order to optimize production, additional wells were drilled in 2013 and a decision was made to construct an additional steam generation unit. The second Surmont development phase is under construction (total capacity of phase 1 and 2 estimated at 130 kb/d).

The development of the Fort Hills project, with an estimated capacity of 180 kb/d, is underway.

On the Joslyn and Northern Lights assets, a final investment decision is not expected in the near future due to the degraded economic environment.

Due to the current economic environment, the Group impaired its oil sands assets in Canada by \$2.2 billion in its 2014 consolidated accounts.

In 2013, TOTAL finalized the sale of its 49% stake in the Voyageur upgrader project.

In the **United States**, the Group's production in 2014 was 78 kboe/d compared with 60 kboe/d in 2013 and 57 kboe/d in 2012.

In the Gulf of Mexico:

Phase 2 of the deep offshore Tahiti oil field (17%) was launched in 2010. This phase comprises drilling four injection wells and two production wells.

The Chinook 5 well on the deep offshore Chinook project (33.33%) started production in early 2014.

The TOTAL (40%) - Cobalt (60%, operator) alliance's exploration campaign, which was launched in 2009, resumed in 2012 with the Ligurian-2 and North Platte wells, resulting in an oil discovery on the latter. A new drilling campaign commenced in February 2015 with the drilling of the North Platte 2 well.

TOTAL is active in shale gas production in Texas via a 25% stake in a joint venture operated by Chesapeake in the Barnett Shale basin. Drilling operations have been sharply reduced since 2012 (approximately 40 wells were drilled in 2014 compared to approximately 60 in 2013 and approximately 100 in 2012).

TOTAL is also active in the production of liquids-rich shale gas in the Utica region in Ohio via a joint venture (25%) operated by Chesapeake.

Approximately 170 wells were drilled in 2014 (compared to more than 200 wells in 2013 and approximately 100 in 2012) and 207 wells have been connected and have started production (compared with 190 in 2013 and 47 in 2012). In November 2014, TOTAL sold its 25% stake in Cardinal Gas Services LLC, a company providing gas collection and treatment services for Utica.

The Group holds a 55.7% stake in American Shale Oil LLC (AMSO), which is developing an *in situ* shale oil production technology.

In 2012, TOTAL entered into a 50/50 joint venture with Red Leaf Resources, which is developing an *ex situ* shale oil production technology. In the summer of 2014, the joint venture launched a production pilot.

Regarding this shale oil theme, TOTAL acquired approximately 120 km<sup>2</sup> of additional land in Colorado and Utah in 2012.

In **Mexico**, TOTAL is conducting various studies with state-owned PEMEX under a general technical cooperation agreement renewed in July 2011 for a period of five years.

#### 2.1.7.3. South America

**In 2014, TOTAL's production in South America was 157 kboe/d, representing 7% of the Group's total production, compared with 166 kboe/d in 2013 and 182 kboe/d in 2012.**

In **Argentina**, where TOTAL has been present since 1978, the Group operated approximately 30%<sup>(1)</sup> of the country's gas production in 2014. The Group's production in 2014 was 75 kboe/d compared with 78 kboe/d in 2013 and 83 kboe/d in 2012. In 2012, the Argentinean government concluded gas price agreements with various producers. Under the terms of these agreements, the Argentinean government guarantees the price of gas for quantities above a fixed production level in exchange for compliance with defined production targets and applicable penalties (*i.e.*, Deliver or Pay). In February 2013, TOTAL signed an agreement of this type for a period of five years with retroactive effect from December 1, 2012.

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In Tierra del Fuego, the Group operates the Carina and Aries offshore fields (37.5%). A drilling campaign consisting of two additional wells began in 2014 based on the existing platform. The development of the Vega Pleyade field (37.5%, operator) was launched in October 2013 (production capacity of 350 Mcf/d).

In the Neuquén basin, TOTAL started a drilling campaign on its mining licenses in 2011 in order to assess their shale gas and shale oil potential. This campaign, which started on the Aguada Pichana licenses (27.3%, operator), was subsequently extended to all of the blocks. The initial results of the production tests on the wells drilled during this campaign were all positive. Two pilot developments intended to test the unconventional production potential at the Aguada Pichana and Rincón la Ceniza (42.5%, operator) Blocks have been launched.

In **Aruba**, TOTAL acquired a 35% stake in the offshore Aruba license (14,000 km<sup>2</sup>) in July 2014. A 3D seismic survey covering 3,250 km<sup>2</sup> was carried out.

In **Bolivia**, the Group's production, primarily gas, was 30 kboe/d in 2014 compared with 28 kboe/d in 2013 and 27 kboe/d in 2012. TOTAL has stakes in seven licenses: three production licenses, San Alberto and San Antonio (15%) and the Tarija Oeste Block XX (41%); two licenses in the development phase, Aquio and Ipati (60%, operator); and two licenses in the exploration phase, Rio Hondo (50%) and Azero (50%, operator of the exploration phase).

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<sup>(1)</sup> Source: Argentinean Ministry of Federal Planning, Public Investment and Services - Energy Secretary.

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The second development phase of the Itaú gas and condensates field located on the Tarija Oeste Block XX started production in January 2014 with a production capacity of 176 Mcf/d.

Following the discovery of the Incahuasi gas field, located on the Ipati Block, two additional wells were drilled in 2011 and 2013. In April 2013, TOTAL was granted approval by the authorities to start the first development phase of the project, including the connection of three previously drilled wells to a central processing plant with a capacity of 6.5 Mm<sup>3</sup>/d. An additional well was drilled in 2014 on the Ipati Block. In mid-2014, TOTAL reduced its participation in Aquio and Ipati from 80% to 60%.

In 2013, TOTAL acquired a 50% stake in the Azero exploration license in the Andean Piedmont, located west of the Ipati and Aquio Blocks and covering an area of more than 7,800 km<sup>2</sup>. The exploration period started in June 2014.

In **Brazil**, the Group has stakes in fourteen exploration licenses.

In 2013, TOTAL acquired a 20% stake in the Libra field, located in Brazil's offshore Santos basin, the potential of which is currently being assessed. The field is located in the ultra-deep offshore (2,000 m) approximately 170 km off the coast of Rio de Janeiro and covers an area of 1,550 km<sup>2</sup>. The drilling of two wells began in the third quarter of 2014 in the field's northwest and center zones.

Following the eleventh bid round organized by the Brazilian authorities in May 2013, TOTAL acquired stakes in ten new exploration licenses. The Group operates five blocks (40%) located in the Foz do Amazonas basin (FZA-M-57, FZA-M-86, FZA-M-88, FZA-M-125 and FZA-M-127) and holds an interest in block CE-M-661 (45%) located in the Ceara basin. TOTAL also holds a 25% stake in three blocks (ES-M-669, ES-M-671 and ES-M-743) located in the Espirito Santo basin and a stake in the BAR-M-346 block (50%) located in the Barreirinhas basin. Seismic survey campaigns were completed in 2014 on the Foz do Amazonas and Espirito Santo basins.

TOTAL also holds stakes in the Xerelete field, which the Group has operated since 2012. This field is primarily located on Block BC-2 (41.2%) and extends into Block BM-C-14 (50%). A well targeting both post-salt and pre-salt horizons was drilled and tested in January 2014.

On the Gato Do Mato field located in Block BM-S-54 (20%) in the Santos basin, a well was drilled in 2012.

In **Colombia**, TOTAL has not had any production since the 2012 sale of its TEPMA BV subsidiary, which held a stake in the Cusiana field. Production was 6 kboe/d in 2012.

On the Niscota license (50%), the drilling program commenced in 2009 is ongoing.

In 2013, TOTAL sold its entire share in the Ocesa pipeline while retaining its transport rights. Subsequently, TOTAL signed an agreement in December 2014 to sell part of its transportation rights in the Ocesa pipeline and closing of this transaction occurred in February 2015.

In **French Guiana**, TOTAL owns a 25% stake in the Guyane Maritime license. This license, located approximately 150 km from the coast in water depths ranging from 200 m to 3,000 m, covers an area of approximately 24,000 km<sup>2</sup>. At year-end 2011, the authorities extended the exploration license until May 31, 2016.

Further to the discovery of Zaedyus, a drilling campaign was conducted from July 2012 to year-end 2013, but was unable to confirm the extension of a reservoir.

In **Trinidad and Tobago**, TOTAL sold all of its exploration and production interests in 2013. The Group's production in 2013 was 12 kboe/d and 16 kboe/d in 2012.

In **Uruguay**, TOTAL holds a 100% stake in three exploration licenses: offshore Block 14, and onshore Blocks B1 and B2.

In October 2013, TOTAL signed two exploration and production contracts for Blocks B1 and B2 for unconventional plays. These two blocks, which cover a total area of 5,200 km<sup>2</sup>, are primarily located in the Artigas province in the northwestern part of the country.

In 2012, TOTAL acquired a stake in Block 14, which is located approximately 250 km offshore in water depths ranging from 2,000 m to 3,500 m and covers an area of some 6,700 km<sup>2</sup>. A 3D seismic acquisition of the entire block was completed in early 2014.

In **Venezuela**, where TOTAL has had operations since 1980, the Group's production was 52 kboe/d in 2014 compared with 48 kboe/d in 2013 and 50 kboe/d in 2012. TOTAL has equity stakes in PetroCedeño (30.3%), in Yucal Placer (69.5%) and in the offshore exploration Block 4, located in Plataforma Deltana (49%).

The development phase of the southern zone of PetroCedeño continues (86 producing wells were drilled at year-end 2014 compared with 43 wells at year-end 2013), as well as the debottlenecking project for the water separation and treatment facilities. In 2013, the postponement of an additional debottlenecking project combined with a performance study performed on the field led to a revision of PetroCedeño's reserves.

Pursuant to an amendment to the gas sale contract, a new development phase of the Yucal Placer field was launched in 2012. The field's production reached 150 Mcf/d in April 2014 following the commissioning of the first clusters and the debottlenecking of the existing gas treatment train.

**2.1.7.4. Asia-Pacific**

**In 2014, TOTAL's production in Asia-Pacific was 238 kboe/d, representing 11% of the Group's total production, compared with 235 kboe/d in 2013 and 221 kboe/d in 2012.**

In **Australia**, where TOTAL has held leasehold rights since 2005, the Group's production was 4 kboe/d in 2014 and in 2013, and 5 kboe/d 2012.

Following the acquisition of an additional 6% stake in 2013, TOTAL has held a 30% stake in the Ichthys project. Launched in early 2012, the project involves the development of a gas and condensate field in the Browse basin. The development consists of a floating platform designed for gas production, treatment and export, an FPSO (processing capacity of 100 kb/d of condensates) to stabilize and export condensates, an 889 km gas pipeline and an onshore liquefaction plant in Darwin with a capacity of 8.4 Mt/y of LNG and 1.6 Mt/y of LPG (liquefied petroleum gas). The LNG has already been sold mainly to Asian buyers under long-term contracts.

GLNG (27.5%) is an integrated gas production, transport and liquefaction project with a capacity of 7.2 Mt/y, based on the development of coal seam gas from the Fairview, Roma, Scotia and Arcadia fields. The upstream development of the project and the liquefaction plant are nearing completion.

In 2013, the WA-492 and WA-493 licenses in the Carnarvon basin were awarded to TOTAL (100%, operator). A 2D seismic campaign began in January 2015.

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TOTAL holds a 40% stake in the WA-343-P license.

At year-end 2012, TOTAL reduced its share in the WA-408 license located in the Browse basin (50%, operator) by disposing of 50% of its stake. Drilled in the first half of 2013, the first exploration well, Basset-1, revealed hydrocarbons. Completed at year-end 2013, the second exploration well has been definitively abandoned.

On the WA-403 license (60%, operator) located in the Bonaparte basin, a well drilled in 2011 indicated the presence of hydrocarbons. A 3D seismic survey was conducted in 2013. The adjacent Block WA-402-P was relinquished in July 2014.

In 2012, TOTAL signed an agreement to enter three shale gas exploration licenses in the South Georgina basin in the center of the country. In the second half of 2013, a 2D seismic survey was conducted on these three licenses.

In **Brunei**, where TOTAL has been present since 1986, the Group operates the offshore Maharaja Lela Jamalulalam gas and condensate field located on Block B (37.5%). The Group's production in 2014 was 15 kboe/d compared with 13 kboe/d in 2013 and 12 kboe/d in 2012. The gas is delivered to the Brunei LNG liquefaction plant.

In 2013, the study regarding the additional development south of the field (Maharaja Lela South) was completed. The project was officially launched in early 2014 with the signature of most of the contracts and a 20-year extension of the existing license.

Studies are currently being conducted to reassess the potential of the deep offshore exploration Block CA1 (54%, operator), which includes the Jagus East discovery.

In **China**, TOTAL has been present since 2006 on the South Sulige Block located in the Ordos basin in Inner Mongolia province. Following appraisal work by TOTAL, China National Petroleum Corporation (CNPC) and TOTAL agreed to a development plan pursuant to which CNPC is the operator and TOTAL holds a 49% stake. The authorities approved this development plan in April 2014. After an initial test phase that began in August 2012, the Group's production in 2014 was 12 kboe/d compared with 8 kboe/d in 2013. The drilling of development wells continues.

In March 2013, TOTAL and Sinopec concluded a joint study agreement relating to shale gas potential on the Xuancheng license (4,000 km<sup>2</sup>) close to Nanjing. A 2D seismic survey covering 600 km was conducted from October 2013 to February 2014. The drilling of an initial exploration well started in late 2014.

In **Indonesia**, where TOTAL has had operations since 1968, the Group's production was 130 kboe/d in 2014 compared with 131 kboe/d in 2013 and 132 kboe/d in 2012.

TOTAL's operations in Indonesia are primarily concentrated on the Mahakam license (50%, operator), which covers in particular the Peciko and Tunu gas fields. TOTAL also has a stake in the Sisi-Nubi gas field (47.9%, operator). The Group delivers most of its natural gas production to the Bontang LNG plant. These volumes of gas accounted for approximately 80% of Bontang's LNG supply in 2014. This gas production is supplemented by condensate and oil production from the Handil and Bekapai fields, which are operated by the Group.

With regard to the Mahakam license:

Tunu: in 2014, additional development wells were drilled in the main reservoir as well as in the shallow gas reservoirs;

Peciko: phase 7 drilling operations continue;

South Mahakam: production started in 2012 and development drilling operations continued. Phase 3 of the project, which includes the development of the Jempang and Metulang fields, is currently underway; and

Sisi-Nubi: drilling operations are continuing within the framework of a second phase of development. The gas from Sisi-Nubi is produced through Tunu's processing facilities.

On the Sebuku license (15%), production started at the Ruby gas field in October 2013 with a capacity of approximately 100 Mcf/d. Ruby's production is transported by pipeline for processing and separation at the Senipah terminal operated by TOTAL.

On the Sadang (30%), Sageri (50%), Arafura Sea (24.5%) and Amborip VI (24.5%) blocks, the Group has applied to the authorities to withdraw from these blocks. In addition, and following the withdrawal of the other partners, the Group's stake in the South Sageri Block increased from 45% to 100% (operator), while its share in the South Mandar Block increased from 33% to 49.3%.

In December 2014, TOTAL sold a 20% stake in the Bengkulu I Mentawai Block (80%, operator). This exploration block is located in the Bengkulu offshore basin southwest of Sumatra. An exploration well was drilled on the block in 2014.

In early 2015, the Group sold its stakes in the two coal bed methane (CBM) blocks located in the province of East Kalimantan, Kutai II (18.4%) and Kutai Timur (50%).

The Group also holds a stake in the Telen block (100%, operator) located in East Kalimantan province.

The Group has decided to withdraw from the South East Mahakam exploration block (50%, operator) located in East Kalimantan province and the South West Bird's Head exploration block (90%, operator) located in West Papua.

In **Malaysia**, where TOTAL has been active since 2008, the Group holds stakes in three exploration licenses (SB-N, DW2E, SK 317 B).

In January 2014, the Group acquired a stake in the DW2E license (85%, operator) located in deep offshore. A 3D seismic campaign of 2,050 km<sup>2</sup> was completed late 2014.

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On the SK 317 B exploration block (85%, operator) located in Sarawak's deep offshore, the first exploration well, Pelangi-1, started in December 2013, revealing gaseous hydrocarbons. A second exploration well, Pelangi-2, started in November 2014.

At the end of the exploration period, TOTAL withdrew from the PM324 Block (50%, operator), located in the Malay basin.

In **Myanmar**, the Group's production in 2014 was 17 kboe/d compared with 16 kboe/d in 2013 and 2012.

The Yadana field (31.2%, operator), located on the offshore Blocks M5 and M6, primarily produces gas for delivery to PTT (Thai state-owned company) for use in Thai power plants. The Yadana field also supplies the domestic market via two pipelines built and operated by MOGE, a Myanmar state-owned company. The LCP-Badamyar project, which includes the installation of the Badamyar compression and development platform, connected to the Yadana facilities, was launched in September 2014.

In 2014, the Group was awarded the deep offshore Block YWB (100%, operator) during the offshore round launched by the Burmese authorities. The PSC was signed in February 2015.



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On offshore Block M-11, located in the Martaban basin, the Group requested a new two-year exploration phase in October 2014 and, following the withdrawal of a partner, increased its stake from the 40% acquired in 2012 to approximately 47.06%. The first exploration well, Manizawta-1, was drilled in 2013.

In **Papua New Guinea**, where TOTAL has been active since 2012, the Group acquired a stake in Block PRL-15 (40.1%) in March 2014. The Papua New Guinea government retains the right to acquire a 22.5% stake in the block when the final investment decision is made. Following the government's entry, TOTAL's stake would be reduced to 31.1%.

Block PRL15 contains the two major discoveries of Elk and Antelope. A program to delineate these discoveries is currently underway with the drilling of two wells, the first of which started in October 2014, and the second of which started in December 2014. TOTAL has also launched pre-development studies of the Elk and Antelope fields, including the construction of an onshore gas liquefaction plant.

In 2012, TOTAL acquired a 40% stake in the PPL244 offshore license, and secured options to acquire 40% in the PPL234 offshore license, 50% in the PRL10 offshore license and 35% in the PPL338 and PPL339 onshore licenses.

On the offshore PPL244 license, two exploration wells were drilled in 2013.

The PPL234 option has not been exercised and the license expired in July 2014.

On the onshore PPL338 and PPL339 licenses, a 2D seismic survey was conducted in 2013. A gradiometer survey was performed on the onshore PPL339 license. The option related to the onshore PPL338 license that expired in March 2014 was not exercised due to the minimal geological interest on the license.

In the **Philippines**, TOTAL has held since 2012 a 75% stake in the SC56 license located in the deep offshore of the southern Sulu Sea. Following interpretation of the data from a seismic campaign in 2013, TOTAL and its partner have decided to drill an exploration well on the block. In October 2014, TOTAL became the operator of the block.

In **Thailand**, the Group's production in 2014 was 60 kboe/d compared with 63 kboe/d in 2013 and 55 kboe/d in 2012. This production comes from the Bongkot (33.33%) offshore gas and condensate field. PTT purchases all of the natural gas and condensate production from this field.

In the northern portion of the Bongkot field, new investments are in progress to maintain plateau and meet gas demand:

phase 3L (two wellhead platforms) was approved in 2012 and commenced production in 2014;

phase 3M (four wellhead platforms) was approved in 2013; and

phase 3N (three wellhead platforms) was approved in 2014.

The southern portion of the field (Greater Bongkot South) is also being developed in several phases. This development is designed to include a processing platform, a living-quarters platform and thirteen production platforms:

phase 4A (six wellhead platforms) commenced production in 2012;

phase 4B (four wellhead platforms) commenced production in 2014; and

phase 4C (three wellhead platforms) is under development.

Exploration on these licenses is ongoing with wells drilled annually (two in 2014).

In **Vietnam**, the Group no longer holds any exploration interests following the sale in 2013 of its stake in offshore Block 15-1/05 (35%).

**2.1.7.5. Commonwealth of Independent States (CIS)**

**In 2014, TOTAL's production in the CIS was 249 kboe/d, representing 12% of the Group's total production, compared with 227 kboe/d in 2013 and 195 kboe/d in 2012.**

In **Azerbaijan**, where TOTAL has been present since 1996, production, coming entirely from the Shah Deniz field, was 14 kboe/d in 2014 compared with 20 kboe/d in 2013 and 16 kboe/d in 2012.

In August 2014, TOTAL sold its stake in the Shah Deniz field (10%) as well as its 10% stake in the pipeline held by South Caucasus Pipeline Company (SCPC).

In September 2014, the Group sold its 10% stake in the Trans Adriatic Pipeline (TAP).

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TOTAL holds a 5% interest in the Baku-Tbilisi-Ceyhan (BTC) pipeline.

TOTAL is the operator for the exploration phase of the Absheron Block (40%) in the Caspian Sea, on which a discovery and commercial declaration was filed in 2012. The development plan for the field is currently being prepared.

In **Kazakhstan**, TOTAL has been active since 1992 in the North Caspian license (16.81%), which covers the Kashagan field.

First phase production from Kashagan (300 kb/d) started in September 2013 and was halted in October 2013 due to leaks detected on the gas export pipeline. Following investigations carried out by the consortium, a refurbishment plan for the pipelines was approved. The two oil and gas export pipelines will be replaced over 99 km.

In February 2015, TOTAL sold 23.9% of its 75% interest in the Northern and Southern Nurmunaï onshore exploration blocks, located in the southwest of the country. The drilling of a well started at the end of February 2015 on Northern Nurmunaï Block.

In **Russia**, where TOTAL has had operations since 1991 and where, as of December 31, 2014, the Group held 19% of its proved reserves, the Group's production in 2014 was 235 kboe/d compared with 207 kboe/d in 2013 and 179 kboe/d in 2012. This production comes from the Kharyaga field and from TOTAL's stake in the Russian company OAO Novatek (18.24%)<sup>(1)</sup>, which is listed in Moscow and London (hereafter, **Novatek**). In 2014, international economic sanctions related to the situation in Ukraine were imposed by the United States, the EU and other countries. TOTAL complies with sanctions applicable to its activities. For additional information, refer to Item 3 C. Risk Factors, above.

On the Kharyaga field (40%, operator), the development of phases 3 and 4 is ongoing.

In addition to its shareholding in Novatek, TOTAL currently participates via a direct stake in two projects:

Termokarstovoye (onshore gas and condensate field located in the Yamalo-Nenets district): The development and production license for the Termokarstovoye field is owned by ZAO Terneftegas, a joint venture between Novatek (51%) and TOTAL (49%). Development of the field started in late 2011 (estimated capacity of 65 kboe/d).

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<sup>(1)</sup> The Group held an 18.24% stake in OAO Novatek as of December 31, 2014.

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Yamal LNG: Launched in December 2013, the aim of this project is the development of the onshore South Tambey field (gas and condensate) located in the Yamal Peninsula via the construction of a three-train LNG liquefaction plant with a capacity of 16.5 Mt/y. In order to comply with international economic sanctions, the financing plan for the Yamal LNG project is being reviewed, and the project's partners are engaged in efforts to develop a financing plan in line with the applicable regulations. In parallel, the development of the project is progressing in a satisfactory manner. The OAO Yamal LNG company is jointly owned by Novatek (60%), TOTAL E&P Yamal (20%) and, since January 2014, CNODC (20%), a subsidiary of CNPC.

In May 2014, TOTAL signed a strategic cooperation agreement with OAO LUKOIL in order to develop shale oil resources in the Bazhenov basin, located in the province of Kanthy Mansiysk. In addition to the licenses covered by this agreement, TOTAL acquired six new licenses in the basin in 2014. The international economic sanctions imposed in the summer of 2014 have led the partners to put this project on hold.

In January 2014, Novatek increased its stake in the Severenergia company by acquiring ENI's shares through Arcticgaz (50/50 joint venture between Novatek and Gazpromneft). In December 2013, Novatek exchanged its interest held in Sibneftegas for all of Rosneft's interests in Severenergia in which it now has a 54.9% stake. Novatek has held a 50% stake in the company ZAO Nortgaz since June 2013.

In **Tajikistan**, TOTAL launched its activities in the country by acquiring a 33.3% stake in the Bokhtar Block in the first half of 2013. Environmental and societal studies were carried out in 2014. A 2D seismic campaign covering 800 km started in 2014.

#### **2.1.7.6. Europe**

**In 2014, TOTAL's production in Europe was 364 kboe/d, representing 17% of the Group's total production, compared with 392 kboe/d in 2013 and 427 kboe/d in 2012.**

In **Bulgaria**, the Khan Asparuh license, which covers 14,220 km<sup>2</sup> in the Black Sea, was awarded to TOTAL in 2012. In March 2013, TOTAL sold 60% of its stake, retaining a 40% interest. A 2D and 3D seismic survey was performed from June 2013 to January 2014 and the data is currently being processed and interpreted. TOTAL became the operator of the block in April 2014.

In **Cyprus**, TOTAL has been present since 2013 in the deep offshore exploration Block 10 (100%, operator) and Block 11 (100%, operator) located southwest of the country. Following a 3D seismic survey carried out on Block 11 in 2013, a 2D seismic survey on Block 10 was conducted in February 2014.

In **Denmark**, TOTAL has since 2010 held an 80% stake and operated the 1/10 (Nordjylland) and 2/10 (Nordsjaelland) licenses. These onshore licenses, whose shale gas potential continues to be assessed, cover areas of 3,000 km<sup>2</sup> and 2,300 km<sup>2</sup>, respectively.

Following geoscience surveys on license 1/10 in 2011, the decision was made to drill a well.

On license 2/10, a gravimetric survey was completed in 2013.

In **France**, the Group's production in 2014 was 2 kboe/d compared with 9 kboe/d in 2013 and 13 kboe/d in 2012.

In October 2013, TOTAL ended commercial gas operations on Lacq, which had begun in 1957. The transfer of the Lacq concession was approved by the French authorities in October 2014.

On the Lacq field, the CO<sub>2</sub> capture, injection and storage pilot commissioned in 2010 ended in 2013.

The Montélimar exclusive exploration license awarded to TOTAL in 2010 to assess, in particular, the shale gas potential of the area, was abrogated by the government in October 2011. This revocation stemmed from the law of July 13, 2011, prohibiting the exploration and extraction of hydrocarbons by drilling followed by hydraulic fracturing. An appeal filed in December 2011 with the administrative court requesting that the judge cancel the revocation of the license is pending.

In **Italy**, TOTAL holds a stake in two exploration licenses and in the Tempa Rossa field (50%, operator), discovered in 1989 and located on the Gorgoglione concession (Basilicate region). The final investment decision for Tempa Rossa was made in July 2012 and development is ongoing. The Gorgoglione well was tested in 2012 and confirmed the results obtained from the other wells. A sidetrack was drilled at the TR-2 well and another started in June 2014 on the TR-1 well.

In 2013, TOTAL sold 25% of its 75% stake in Tempa Rossa, thereby reducing its stake to 50%.

In **Norway**, where the Group has had operations since 1965, TOTAL has equity stakes in 96 production licenses on the Norwegian maritime continental shelf, 29 of which it operates. In 2014, the Group's production was 242 kboe/d, compared to 243 kboe/d in 2013 and 275 kboe/d in 2012. The decrease in production

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between 2012 and 2014 was mainly due to the natural decline of mature fields.

In the Norwegian North Sea, the most substantial contribution to the Group's production comes from the non-operated Greater Ekofisk Area (Ekofisk, Eldfisk, Embla, etc.).

In the southern Norwegian North Sea:

In the Greater Ekofisk Area, the Group owns a 39.9% stake in the Ekofisk and Eldfisk fields. Production started in October 2013 at Ekofisk South, and in January 2015 at Eldfisk II (capacity of 70 kboe/d each).

In the central part of the Norwegian North Sea:

The development of the Gina Krog field (30%) located north of Sleipner was approved in 2013.

In the northern part of the Norwegian North Sea:

The Islay field (100%, operator) started production in 2012. This field extends on each side of the Norwegian/UK border and the Group's interest in the Norwegian part is 5.51%.

The Stjerne field, located on license PL104 (14.7%), and the Visund South field, located on license PL120 (7.7%), were put into production in 2013 and 2012, respectively.

On license PL120 (7.7%), the fast-track development of Visund North allowed production to start in 2013.

On the Greater Hild Area (51%, operator), the Martin Linge development (capacity of 80 kboe/d) was approved by the authorities in 2012.

In 2013, the authorities approved the Oseberg Delta phase 2 project (14.7%), located on production licenses PL104 and PL79. The Oseberg East TSV project (14.7%) was approved in 2014.

In the Norwegian Sea, the Haltenbanken area includes the Tyrihans (23.2%), Mikkel (7.7%) and Kristin (6%) fields, as well as the Åsgard field (7.7%) and its satellites.

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The Norwegian authorities approved the Åsgard sub-sea compression project in 2012. The main contracts have all been signed and various components were installed during the summer of 2014.

The Polarled project (5.11%), approved in 2012, involves the installation of a 481 km long pipeline from the Aasta Hansen field to the Nyhamna terminal, as well as expansion of the terminal.

In the Barents Sea, a project intended to improve the performance of the Snøhvit gas liquefaction plant (18.4%, 4.2 Mt/y capacity) was launched in 2012.

The plant is supplied with gas from the Snøhvit, Albatross and Askeladd fields.

Several exploration wells were drilled on a number of licenses during the 2012-2014 period with discoveries on Helene (PL120, 11%) and Trell (PL102G, 40%, operator) in 2014, on Smørbukk North (PL479, 7.68%) and Rhea (PL120, 7.68%) in 2013, as well as on Garantiana (PL554, 40%, operator) and King Lear (PL146 and 333, 22.2%) in 2012. In 2014, the well drilled on Garantiana enabled an increase in estimated oil volumes.

In addition, the Group continues to optimize its portfolio in Norway by obtaining new licenses and divesting a number of non-strategic assets. To this end, in October 2014, TOTAL concluded an agreement to sell an 8% stake in the Gina Krog field, thereby reducing its stake to 30%, and all of its interests in the Vilje (24.24%), Vale (24.24%) and Morvin (6%) fields. The transaction was approved by the Norwegian authorities in December 2014.

**In the Netherlands**, TOTAL has conducted natural gas exploration and production operations since 1964 and currently holds interests in twenty-four offshore production licenses, including twenty that it operates, and two offshore exploration licenses, E17c (16.92%) and K1c (30%). In 2014, the Group's production was 31 kboe/d compared with 35 kboe/d in 2013 and 33 kboe/d in 2012.

In September 2014, the Dutch authorities awarded the F12 exploration block to TOTAL.

Following the acquisition of additional stakes in 2013, TOTAL now holds a 50% stake in Block K5b and a 60% stake in Blocks K1b/K2a and K2c. TOTAL is the operator of these blocks.

A 3D seismic survey of several offshore licenses covering an area of 3,500 km<sup>2</sup> was conducted in 2012.

In August 2013, the K4-Z development project (50%, operator) started production.

**In Poland**, at the beginning of 2012, TOTAL signed an agreement to acquire a 49% stake in the Chelm and Werbkowice exploration concessions in order to assess their shale gas potential. In February 2014, the licenses were relinquished, and since then the Group no longer holds any exploration interests in the country.

**In the United Kingdom**, where TOTAL has had operations since 1962, the Group's production was 89 kboe/d in 2014 compared with 105 kboe/d in 2013 and 106 kboe/d in 2012. About 90% of production comes from operated fields located in two main zones: the Alwyn zone in the northern North Sea, and the Elgin/Franklin zone in the Central Graben.

In the Alwyn zone (100%), the start-up of satellite fields or new reservoir compartments partially compensated for the natural decline in production. The N54 and N53 wells were put into production in 2012 and 2011, respectively. In

addition, the N55 well, which was drilled in 2012 in the Brent South West panel, was put into production in the second quarter of 2014 and the N56 well (Alwyn Staffjord) in the third quarter of 2014.

On the Dunbar field (100%), a new development phase (Dunbar phase IV) including three well work-overs and the drilling of six new wells is underway.

The Islay field (100%, operator) was put into production in 2012. This field extends on either side of the border between the United Kingdom (94.49%) and Norway (5.51%). Production from the field is processed on the Alwyn North platform.

In Central Graben, TOTAL holds stakes in the Elgin, Franklin and West Franklin fields (46.2%, operator). Production at the Elgin, Franklin and West Franklin fields was stopped following a gas leak on the Elgin field in March 2012. In May 2012, the G4 well was definitively secured. Production in the Elgin/Franklin area resumed in March 2013 following the approval of the safety case by the UK Health and Safety Executive (HSE). A redevelopment project involving the drilling of five new infill wells on Elgin and Franklin started in July 2013.

In 2014, TOTAL acquired an additional interest (9.5%) in the Glenelg field, thereby increasing its interest from 49.5% to 58.7%.

In addition, the West Franklin Phase II development project continued with the start-up of production of the first well in January 2015.

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In addition to Alwyn and the Central Graben, a third hub, West of Shetland, is under development. This hub includes the Laggan and Tormore fields (80%, operator) and the P967 license (50%, operator), which includes the Tobermory gas discovery. Production on the Laggan and Tormore fields is expected to start in 2015 with an expected capacity of 90 kboe/d.

Close to Laggan and Tormore, the development of the Edradour East (80%, operator) gas and condensate discovery was sanctioned in 2012. A second well (Spinnaker), near the Edradour East discovery, was drilled in early 2014.

In July 2014, TOTAL acquired an 80% stake and the operatorship in the Glenlivet field located north of Edradour. The proximity of the two fields resulted in reduced costs, which enabled the launch of a joint development.

In addition, TOTAL purchased an additional 5% stake in the Edradour field in 2014 and now holds 80% of the four fields currently under development: Laggan, Tormore, Edradour and Glenlivet.

TOTAL also holds a stake in three non-operated fields: Bruce (43.25%), Keith (25%), and Markham (7.35%). The Group's stakes in other non-operated fields (Seymour, Alba, Armada, Maria, Moira, Mungo/Monan and Everest) were divested in 2012.

TOTAL was awarded six new licenses in the 28<sup>th</sup> Round in November 2014. Four of these licenses are in the West of Shetland area, one in the northern North Sea and one non-operated in the Central Graben.

In early 2014, TOTAL acquired a 40% stake in two onshore shale gas exploration and production licenses (PEDL 139 and 140) located in the Gainsborough Trough basin of the East Midlands, and signed an agreement enabling the Group to acquire a 50% stake in the PEDL 209 license located in the same area. A 70 km<sup>2</sup> 3D survey campaign was carried out in March and April 2014.

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#### *2.1.7.7. Middle East*

**In 2014, TOTAL's production in the Middle East was 391 kboe/d, representing 18% of the Group's total production, compared with 536 kboe/d in 2013 and 493 kboe/d in 2012.**

In the **United Arab Emirates**, where TOTAL has had operations since 1939, the Group's production was 127 kboe/d in 2014 compared with 260 kboe/d in 2013 and 246 kboe/d in 2012. The decrease in production in 2014 was due to the expiry of the Abu Dhabi Company for Onshore oil Operations (ADCO) license in January 2014, in which TOTAL held a 9.5% interest. In January 2015, TOTAL signed an agreement granting it a 10% participation as from January 1, 2015 in the new ADCO concession for 40 years. This concession covers the fifteen main onshore fields of Abu Dhabi and represents more than half of the Emirates production.

TOTAL holds a 75% stake (operator) in the Abu Al Bukhoosh field and a 13.3% stake in Abu Dhabi Marine Operating Company (ADMA-OPCO), which operates two fields offshore Abu Dhabi. TOTAL also holds a 15% stake in Abu Dhabi Gas Industries (GASCO), which produces NGL and condensates from the associated gas produced by ADCO as well as from the gas and condensates produced by ADMA-OPCO. In addition, TOTAL holds stakes of 5% in Abu Dhabi Gas Liquefaction Company (ADGAS), which processes the associated gas produced by ADMA-OPCO in order to produce LNG, NGL and condensates, and 5% in National Gas Shipping Company (NGSCO), which owns eight LNG tankers and exports the LNG produced by ADGAS.

The Group holds a 24.5% stake in Dolphin Energy Ltd. in partnership with Mubadala, a company owned by the government of Abu Dhabi, in order to market gas produced in Qatar primarily to the United Arab Emirates.

The Group also owns 33.33% of Ruwais Fertilizer Industries (FERTIL), which produces urea. The FERTIL 2 project commenced operations in July 2013, enabling FERTIL to more than double its production capacity to 2 Mt/y.

In **Iraq**, the Group's production in 2014 was 12 kboe/d compared with 7 kboe/d in 2013 and 6 kboe/d in 2012.

On the Halfaya field in Missan province, following the completion of a negotiation in October 2014, TOTAL's stake increased from 18.75% to 22.5% in the consortium that was awarded the development and production contract. Production of phase 1 of the project started in June 2012 and phase 2 started in August 2014, enabling production to reach 200 kb/d in the second half of 2014.

In early 2014, TOTAL increased its stake from 35% to 80% and became operator of the Safen Block (424 km<sup>2</sup>) located northwest of Erbil in the Kurdistan region. A 2D seismic survey of 275 km was conducted in 2014.

In early 2013, TOTAL acquired an 80% stake and became operator of the Baranan exploration Block (729 km<sup>2</sup>), southeast of Sulaymaniyah, in the Kurdistan region. A 2D seismic survey of 213 km was completed in January 2014.

Since 2012, TOTAL has held a 35% stake in the Harir exploration Block (705 km<sup>2</sup>) located northeast of Erbil, as well as a 20% stake in the Taza Block (505 km<sup>2</sup>), located southwest of Sulaymaniyah. Following three exploration wells in 2013 that led to two

discoveries on the Taza Block and on the Harir Block (Mirawa), an exploration well was drilled in 2014 resulting in the Jisik discovery.

In **Iran**, the Group has had no production since 2010. For additional information, refer to C. Other Matters 8. Cuba, Iran and Syria, below.

In **Oman**, the Group's production in 2014 was 36 kboe/d, stable compared with 2013 and 2012. TOTAL primarily produces oil on Block 6 (4%) as well as on Block 53 (2%)<sup>(2)</sup>. The Group also produces LNG through its stake in the Oman LNG (5.54%)/Qalhat LNG (2.04%)<sup>(3)</sup> liquefaction plant, which has a capacity of 10.5 Mt/y. In December 2013, TOTAL obtained the license for ultra-deep offshore Block 41, in which a seabed core drilling campaign was carried out.

In **Qatar**, where TOTAL has had operations since 1936, the Group's production was 132 kboe/d in 2014 compared with 137 kboe/d in 2013 and 139 kboe/d in 2012.

The Group operates the Al Khalij field and participates in the production, processing and export of gas from the North Field through its stakes in the Qatargas 1 and Qatargas 2 liquefied natural gas (LNG) plants and in Dolphin Energy.

Al Khalij (40%, operator): in 2012, TOTAL and state-owned Qatar Petroleum signed a new agreement extending their partnership on the Al Khalij field for an additional 25-year period as of February 1, 2014. According to the terms of this contract, TOTAL will continue to be the operator (40%) alongside Qatar Petroleum (60%).

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**Qatargas 2 (16.7%):** the production capacity of train 5 of Qatargas 2 is 8 Mt/y. TOTAL offtakes part of the LNG produced under the 2006 contracts which provide for the purchase of 5.2 Mt/y of LNG by the Group. In addition, the Group holds a stake in the Qatargas 1 liquefaction plant (10%), as well as a stake in the corresponding upstream block NFB (20%).

**Dolphin Energy (24.5%):** the production contract for the Dolphin gas project, signed in 2001 with Qatar Petroleum, provides for the sale of 2 Bcf/d of gas from the North Field for a 25-year period. The gas is processed in the Dolphin plant in Ras Laffan and exported to the United Arab Emirates through a 360 km gas pipeline.

The Group became a partner in the offshore BC exploration license (25%) in 2011. Drilling of the first exploration well started in May 2014 and was completed in December 2014.

**In Syria,** TOTAL has a 100% stake in the Deir Ez Zor license, which is operated by the joint venture company DEZPC in which TOTAL and the state-owned company SPC each have a 50% share. TOTAL also holds the Tabiyeh contract, which came into effect in 2009. The Group has had no production in the country since December 2011, when TOTAL suspended its hydrocarbon production activities in Syria in compliance with the European Union's regulations regarding this country. For additional information, refer to Item 4 C. Other Matters 8. Cuba, Iran and Syria, below.

**In Yemen,** where TOTAL has had operations since 1987, the Group's production was 84 kboe/d in 2014 compared with 95 kboe/d in 2013 and 65 kboe/d in 2012.

The security situation in Yemen remains unstable, however this had only a marginal effect on the production from the Group's assets in 2014. Security measures are regularly reviewed in view of the evolving risks.

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<sup>(1)</sup> TOTAL holds an indirect 4% stake in Petroleum Development Oman LLC, operator of Block 6 via its 10% stake in Private Oil Holdings Oman Ltd.

<sup>(2)</sup> TOTAL holds a 2% stake in Block 53.

<sup>(3)</sup> TOTAL has an indirect stake via Oman LNG's stake in Qalhat LNG.



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TOTAL owns a 39.62% stake in the Yemen LNG liquefaction plant (capacity of 6.7 Mt/y), which is located in Balhaf on the country's southern coast. This plant is supplied with the gas produced on Block 18, located near Marib in the center of the country, and connected via a 320 km gas pipeline. Rockets were launched towards the Balhaf plant in December 2013, January 2014 and December 2014. However, production was not impacted and security measures have been strengthened.

TOTAL also has stakes in two oil blocks: Block 10 East Shabwa license (28.57%, operator) in the Masila basin and Block 5 Jannah license (15%) in the Marib basin.

TOTAL owns stakes in five onshore exploration licenses: Block 69 (40%, the exploration period has expired and the block is in the process of being relinquished), Block 71 (40%), Block 70 (50.1%, operator), Block 72 (36%, operator), and Block 3 (40%, operator).

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**2.1.8. Oil and gas acreage**

As of December 31, (in thousands of acres)		2014	
		Undeveloped acreage <sup>(a)</sup>	Developed acreage
Europe	Gross	10,601	692
	Net	5,197	143
Africa	Gross	122,385	1,306
	Net	79,562	350
Americas	Gross	25,081	962
	Net	11,375	299
Middle East	Gross	34,375	1,215
	Net	9,908	129
Asia (excl. Russia)	Gross	50,076	705
	Net	26,930	253
Russia	Gross	3,419	1,370
	Net	1,334	215
<b>Total</b>	<b>Gross</b>	<b>245,937</b>	<b>6,250</b>
	<b>Net<sup>(b)</sup></b>	<b>134,306</b>	<b>1,389</b>

<sup>(a)</sup> Undeveloped acreage includes leases and concessions.

<sup>(b)</sup> Net acreage equals the sum of the Group's equity stakes in gross acreage.

**2.1.9. Number of productive wells**

As of December 31,		2014	
		Gross productive wells	Net productive wells <sup>(a)</sup>
Europe	Oil	370	101
	Gas	279	82
Africa	Oil	2,297	619
	Gas	158	49
Americas	Oil	961	295
	Gas	3,817	782
Middle East	Oil	5,540	355
	Gas	107	20
Asia (excl. Russia)	Oil	140	57
	Gas	2,063	732
Russia	Oil	137	31
	Gas	410	67
<b>Total</b>	<b>Oil</b>	<b>9,445</b>	<b>1,458</b>
	<b>Gas</b>	<b>6,834</b>	<b>1,732</b>

<sup>(a)</sup> Net wells equal the sum of the Group's equity stakes in gross wells.

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**2.1.10. Number of net productive and dry wells drilled**

As of December 31,		2014				2013				2012			
		Net productive wells drilled <sup>(a)(b)</sup>	Net dry wells drilled <sup>(a)(c)</sup>	Net total productive wells drilled <sup>(a)(c)</sup>	Net productive wells drilled <sup>(a)(b)</sup>	Net dry wells drilled <sup>(a)(c)</sup>	Net total productive wells drilled <sup>(a)(c)</sup>	Net productive wells drilled <sup>(a)(b)</sup>	Net dry wells drilled <sup>(a)(c)</sup>	Net total productive wells drilled <sup>(a)(c)</sup>			
<b>Exploratory</b>	Europe	1.4	0.2	1.6	1.5	0.2	1.7	0.9	3.3	4.2			
	Africa	2.0	3.3	5.3	1.5	5.1	6.6	4.9	2.8	7.7			
	Americas	2.1	0.3	2.4	2.9	1.4	4.3	3.9	0.6	4.5			
	Middle East	0.3	0.3	0.6	0.6	0.7	1.3						
	Asia (excl. Russia)	1.2	1.1	2.3	1.6	4.3	5.9	2.4	1.4	3.8			
	Russia		0.3	0.3									
	<b>Total</b>	<b>7.0</b>	<b>5.5</b>	<b>12.5</b>	<b>8.1</b>	<b>11.7</b>	<b>19.8</b>	<b>12.1</b>	<b>8.1</b>	<b>20.2</b>			
<b>Development</b>	Europe	8.8		8.8	6.9	0.3	7.2	6.0	0.7	6.7			
	Africa	24.6	1.0	25.6	19.7	0.4	20.1	22.7		22.7			
	Americas	128.1	0.2	128.3	98.0		98.0	70.6		70.6			
	Middle East	36.1	0.2	36.3	42.7	0.3	43.0	43.3		43.3			
	Asia (excl. Russia)	106.2	0.5	106.7	184.2		184.2	121.5		121.5			
	Russia	28.8	0.8	29.6	13.8		13.8	6.3		6.3			
	<b>Total</b>	<b>332.6</b>	<b>2.7</b>	<b>335.3</b>	<b>365.3</b>	<b>1.0</b>	<b>366.3</b>	<b>270.4</b>	<b>0.7</b>	<b>271.1</b>			
<b>Total</b>		<b>339.6</b>	<b>8.2</b>	<b>347.8</b>	<b>373.4</b>	<b>12.7</b>	<b>386.1</b>	<b>282.5</b>	<b>8.8</b>	<b>291.3</b>			

(a) Net wells equal the sum of the Group's fractional interests in gross wells.

(b) Includes certain exploratory wells that were abandoned, but which would have been capable of producing oil in sufficient quantities to justify completion.

(c) For information: service wells and stratigraphic wells drilled within oil sands operations in Canada are not reported in this table (90.0 wells in 2014, 86.2 wells in 2013 and 131.7 in 2012).

**2.1.11. Wells in the process of being drilled (including wells temporarily suspended)**

As of December 31,		2014	
		Gross	Net <sup>(a)</sup>
<b>Exploratory</b>	Europe	6	2.1
	Africa	32	9.6
	Americas	12	4.0
	Middle East	13	4.2
	Asia (excl. Russia)	12	3.4
	Russia		
	<b>Total</b>	<b>75</b>	<b>23.3</b>
<b>Other wells<sup>(b)</sup></b>	Europe	36	13.9
	Africa	47	12.6
	Americas	370	159.3
	Middle East	128	14.0
	Asia (excl. Russia)	797	206.4
	Russia	203	32.5
	<b>Total</b>	<b>1,581</b>	<b>438.7</b>
<b>Total</b>		<b>1,656</b>	<b>462.0</b>

(a) Net wells equal the sum of the Group's equity stakes in gross wells. Includes wells for which surface facilities permitting production have not yet been constructed. Such wells are also reported in the table Number of net productive and dry wells drilled, above, for the year in which they were drilled.

(b) Other wells are development wells, service wells, stratigraphic wells and extension wells.



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**2.1.12. Interests in pipelines**

The table below sets forth interests of the Group's entities (excluding equity affiliates) in oil and gas pipelines as of December 31, 2014.

Pipeline(s)	Origin	Destination	% interest	Operator	Liquids	Gas
<b>EUROPE</b>						
<b>Norway</b>						
Frostpipe (inhibited)	Lille-Frigg, Froy	Oseberg	36.25		x	
Heimdal to Brae Condensate Line	Heimdal	Brae	16.76			x
Kvitebjorn pipeline	Kvitebjorn	Mongstad	5.00			x
Norpipe Oil	Ekofisk Treatment center	Teeside (UK)	34.93			x
Oseberg Transport System	Oseberg, Brage and Veslefrikk	Sture	12.98			x
Sleipner East Condensate Pipe	Sleipner East	Karsto	10.00			x
Troll Oil Pipeline I and II	Troll B and C	Vestprosess (Mongstad refinery)	3.71			x
Vestprosess	Kollsnes (Area E)	Vestprosess (Mongstad refinery)	5.00			x
Polarled	Asta Hansteen/Linnorm	Nyhamna	5.11			x
<b>The Netherlands</b>						
Nogat pipeline	F3-FB	Den Helder	5.00			x
WGT K13-Den Helder	K13A	Den Helder	4.66			x
WGT K13-Extension	Markham	K13 (via K4/K5)	23.00			x
<b>United Kingdom</b>						
Alwyn Liquid Export Line	Alwyn North	Cormorant	100.00	x	x	
Bruce Liquid Export Line	Bruce	Forties (Unity)	43.25			x
Central Graben Liquid Export Line (LEP)	Elgin-Franklin	ETAP	15.89			x
Frigg System : UK line	Alwyn North, Bruce and others	St. Fergus (Scotland)	100.00	x		x
Ninian Pipeline System	Ninian	Sullom Voe	16.00		x	
Shearwater Elgin Area Line (SEAL)	Elgin-Franklin, Shearwater	Bacton	25.73			x
SEAL to Interconnector Link (SILK)	Bacton	Interconnector	54.66	x		x
<b>AFRICA</b>						
<b>Gabon</b>						
Mandji Pipes	Mandji fields	Cap Lopez Terminal	100.00 <sup>(a)</sup>	x	x	
Rabi Pipes	Rabi fields	Cap Lopez Terminal	100.00 <sup>(a)</sup>	x	x	
<b>AMERICAS</b>						
<b>Argentina</b>						
TGN	Network (Northern Argentina)		15.40			x
TGM	TGN	Uruguayana (Brazil)	32.68			x
<b>Brazil</b>						
TBG	Bolivia-Brazil border	Porto Alegre via São Paulo	9.67			x
<b>ASIA-PACIFIC</b>						
Yadana	Yadana (Myanmar)	Ban-I Tong (Thai border)	31.24	x		x
<b>REST OF WORLD</b>						
BTC	Baku (Azerbaijan)	Ceyhan (Turkey, Mediterranean)	5.00			x

<sup>(a)</sup> Interest of Total Gabon. The Group has a financial interest of 58.28% in Total Gabon.

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**2.2. Gas & Power**

Gas & Power's primary objective is to contribute to the growth of the Group by ensuring sales outlets for its current and future natural gas reserves and production.

In order to optimize these gas resources, particularly liquefied natural gas (LNG), Gas & Power's activities include the trading and marketing of natural gas, LNG, liquefied petroleum gas (LPG) and electricity as well as shipping. Gas & Power also has stakes in infrastructure companies (re-gasification terminals, natural gas transport and storage, power plants) necessary to implement its strategy.

**2.2.1. Liquefied natural gas**

A pioneer in the LNG industry, TOTAL today is one of the world's leading players<sup>4)</sup> in the sector and has sound and diversified positions both in the upstream and downstream portions of the LNG chain. LNG development is a key element of the Group's strategy, with TOTAL strengthening its positions in most major production zones and markets.

Through its stakes in liquefaction plants<sup>2)</sup> located in Qatar, the United Arab Emirates, Oman, Nigeria, Norway, Yemen and Angola and its gas supply agreement with the Bontang LNG plant in Indonesia, TOTAL markets LNG in all global markets. The share of LNG production sold by TOTAL in 2014 remained stable at 12.2 Mt, (12.3 Mt in 2013). The Group's upcoming liquefaction projects, in particular in Australia and Russia, are aimed at increasing TOTAL's share of LNG sold over the coming years.

Gas & Power is responsible for LNG operations downstream from liquefaction plants. It is in charge of marketing LNG on behalf of Exploration & Production and developing the Group's downstream LNG portfolio for its trading, marketing and transport operations as well as re-gasification terminals.

**2.2.1.1. Long-term Group LNG purchases**

TOTAL acquires long-term LNG volumes most frequently from liquefaction plants in which the Group holds a stake. These volumes support the expansion of the Group's worldwide LNG portfolio.

In **Nigeria**, as part of the Nigeria LNG project in which the Group has a 15% interest, TOTAL signed an LNG purchase agreement, initially intended for deliveries to the United States and Europe, for 1.17 Mt/y over a 20-year period starting in 2009.

TOTAL also holds a 20.48% stake in the Brass LNG project, on which studies are ongoing for a gas liquefaction plant with two LNG trains with a capacity of about 4.5 Mt/y each. In 2006, TOTAL signed a preliminary agreement with Brass LNG Ltd setting forth the principal terms of an LNG purchase agreement for 2.15 Mt/y. This purchase agreement is subject to the final investment decision for the project.

In **Norway**, as part of the Snøhvit project, in which the Group holds an 18.4% stake, TOTAL signed in 2004 a purchase agreement for 0.78 Mt/y of LNG over a 20-year period primarily intended for North America and Europe. LNG deliveries started in 2007.

In **Qatar**, TOTAL signed purchase agreements in 2006 for up to 5.2 Mt/y of LNG from train 5 (16.7%) of Qatargas 2 over a 25-year period. This LNG was initially marketed in France, the United Kingdom and the United States. LNG deliveries started in 2009.

In **Yemen**, TOTAL signed a contract with Yemen LNG Ltd (39.62%) in 2005 to purchase 2 Mt/y of LNG over a 20-year period, initially intended for delivery to the United States and Europe. LNG deliveries started in 2009.

Since 2009, a growing part of the volume purchased by the Group pursuant to its long-term contracts related to the LNG projects mentioned above has been diverted to more buoyant Asian markets.

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The new LNG sources described below are expected to support the growth of the Group's LNG portfolio.

In **Australia**, TOTAL increased its stake in the Ichthys LNG project in early 2013 from 24% to 30%. Launched in early 2012, this project involves the construction of two LNG trains, each with a capacity of 4.2 Mt/y. In addition, TOTAL signed in 2011 an LNG purchase agreement amounting to 0.9 Mt/y over a 15-year period. The start of production is scheduled for the end of 2016 and the first LNG deliveries to long-term customers are expected to start in 2017.

In **Russia**, TOTAL owns a 20% direct stake in Yamal LNG, which is developing the South Tambey gas and condensates field and building a gas liquefaction plant with three trains and an LNG production capacity of 16.5 Mt/y. The final investment decision was made in December 2013. Concurrently, TOTAL signed two LNG purchase agreements with the project, amounting respectively to 3 Mt/y over a 23-year period and 1 Mt/y over a 15-year period.

In the **United States**, TOTAL entered into an agreement in 2012 with Kogas (Korea Gas Corporation) for the purchase of 0.7 Mt/y of LNG over a 20-year period from train 3 of the Sabine Pass gas terminal in Louisiana. LNG deliveries are expected to start in 2017. At the same time, TOTAL also entered into an agreement with Sabine Pass Liquefaction LLC for the purchase of 2 Mt/y of LNG over a 20-year period from train 5 of the Sabine Pass terminal. LNG deliveries will begin on the date on which train 5 is commissioned, which is scheduled for 2019. This agreement is conditional on, among other things, the final investment decision for the project and the obtaining of export and construction permits by Sabine Pass Liquefaction LLC, the entity which owns and operates the terminal. Finally, TOTAL concluded a contract with Mitsui in 2014 for the purchase of 0.5 Mt/y of LNG from the Cameron gas terminal in Louisiana over a 10-year period starting from the date of commissioning of train 1, scheduled for 2018.

### **2.2.1.2. Long-term Group LNG sales**

TOTAL has signed agreements for the sale of LNG from the Group's global LNG portfolio:

In **Spain**, TOTAL signed an LNG sales agreement with Cepsa Gas Comercializadora (CGC). Under this agreement, TOTAL supplies 0.74 Mt/y to CGC over a 17-year period starting from 2006.

In **China**, TOTAL signed an LNG sales agreement with China National Offshore Oil Corporation (CNOOC). Under this agreement, which became effective in 2010, TOTAL supplies up to 1 Mt/y of LNG to CNOOC over a 15-year period.

In **South Korea**, TOTAL signed an LNG sales agreement in 2011 with Kogas. Under this agreement, TOTAL will deliver up to 2 Mt/y of LNG to Kogas between 2014 and 2031.

(1) Company data, based on upstream and downstream LNG portfolios in 2014.

(2) Exploration & Production is in charge of the Group's natural gas liquefaction and production operations.

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### **Item 4 - B.2. Upstream Segment**

In **Japan**, TOTAL signed an LNG sales agreement in 2011 with Inpex. Under this agreement, TOTAL will deliver up to 0.2 Mt/y of LNG to Inpex over a 15-year period. Deliveries are expected to start in 2017.

In **Singapore**, TOTAL signed an LNG sales agreement in 2014 with Pavilion. Under this agreement, TOTAL will supply up to 0.7 Mt/y of LNG to Pavilion from 2018 over a 10-year period, as well as several cargoes before 2018. This agreement is subject to Pavilion obtaining an import license.

#### **2.2.1.3. LNG shipping**

With regard to LNG transport operations, TOTAL has been using since 2006 a 145,000 m<sup>3</sup> capacity LNG tanker, the Arctic Lady, under a long-term charter, to ship its share of production from the Snøhvit liquefaction plant in Norway. In late 2011, TOTAL signed a second long-term contract for the chartering of a 165,000 m<sup>3</sup> LNG tanker, the Meridian Spirit, in order to strengthen its transport capacities with regard to its purchase commitments in Norway, as mentioned above.

The Group continues to develop its fleet. TOTAL signed a long-term charter agreement in April 2013 in this regard with SK Shipping and Marubeni for two 180,000 m<sup>3</sup> LNG tankers. The vessels will serve in fulfilling the purchase agreements of Total Gas & Power, including commitments relating to the Ichthys LNG project in Australia and the Sabine Pass project in the United States. These tankers, scheduled for delivery in 2017, will be among the largest to navigate the Panama Canal following the canal's expansion due to be completed in 2015.

As of December 31, 2013, the Group held a 30% stake in Gaztransport & Technigaz (GTT), which focuses mainly on the design and engineering of membrane cryogenic tanks for LNG tankers. Since then, TOTAL has sold its entire stake through the initial public offering (IPO) of GTT's shares on Euronext Paris at the end of February 2014 and through a direct sale agreement in December 2014.

#### **2.2.2. Trading**

In 2014, TOTAL continued to pursue its strategy of developing operations downstream from natural gas and LNG production. The aim of this strategy is to optimize access for the Group's current and future production to markets with long-term contracts and to markets open to international competition (with short-term contracts and spot sales). In the context of deregulated markets, which allow customers to access suppliers more freely, in turn leading to marketing arrangements that are more flexible than traditional long-term contracts, TOTAL is developing trading, marketing and logistics businesses to market its natural gas and LNG production directly to customers.

The Group also has operations in electricity trading and the marketing of LPG and coal. Furthermore, TOTAL has marketed the petcoke produced at the Port Arthur refinery in the United States since 2011 and a part of the petcoke produced at the Jubail refinery in Saudi Arabia since 2014.

Gas & Power's trading teams, which are located in London, Houston, Geneva and Singapore, conduct most of their business through the Group's wholly-owned subsidiaries Total Gas & Power, Total Gas & Power North America and Total Gas & Power Asia.

##### **2.2.2.1. Gas and electricity**

TOTAL's gas and electricity trading operations in Europe and North America sell the Group's production, supply its gas marketing subsidiaries and support other activities of the Group.

In **Europe**, TOTAL marketed 911 Bcf (25.8 Bm<sup>3</sup>) of natural gas in 2014 compared to 1,194 Bcf (33.8 Bm<sup>3</sup>) in 2013 and 1,488 Bcf (42.1 Bm<sup>3</sup>) in 2012, including approximately 12.1% from its own production in 2014. TOTAL also supplied 44.8 TWh of electricity primarily from external resources in 2014, compared to 53.0 TWh in 2013 and 53.3 TWh in 2012.

In **North America**, TOTAL marketed 593 Bcf (16.8 Bm<sup>3</sup>) of natural gas from its own production or external resources in 2014, compared to 938 Bcf (26.6 Bm<sup>3</sup>) in 2013 and 1,256 Bcf (36 Bm<sup>3</sup>) in 2012.



**2.2.2.2. LNG**

TOTAL has LNG trading operations through spot sales and fixed-term contracts as described in section 2.2.1. of this chapter. Major purchase and sale agreements have significantly helped develop the Group's LNG marketing operations, particularly in Asia's most buoyant markets: China, India, Japan, and South Korea. This spot and fixed-term LNG portfolio allows TOTAL to supply gas to its main customers worldwide, while retaining a sufficient degree of flexibility to react to market opportunities.

In 2014, TOTAL purchased 87 contractual cargoes from Qatar, Yemen, Nigeria and Norway and 7 spot cargoes from France, Trinidad & Tobago and Nigeria, compared to, respectively, 89 and 9 in 2013 and 87 and 8 in 2012.

**2.2.2.3. LPG**

TOTAL traded and sold approximately 5.5 Mt of LPG (butane and propane) worldwide in 2014, compared to 5.6 Mt in 2013 and 6 Mt in 2012. Approximately 20% of these quantities came from fields or refineries operated by the Group. LPG trading involved the use of 10 time charters, 290 voyages were necessary in 2014 to transport the negotiated quantities, of which 195 voyages were by TOTAL time charters, and 95 by spot charters.

**2.2.2.4. Coal**

TOTAL marketed 8.5 Mt of coal on the international market in 2014, the same quantity as in both 2013 and 2012. More than 70% of this coal came from South Africa. Approximately 70% of the volume was sold in Asia, where coal is used primarily to generate electricity. The remaining volume was marketed primarily in Europe.

**2.2.2.5. Petcoke**

TOTAL began to market the petcoke produced by the coker at the Port Arthur refinery in the United States in 2011. Approximately 1.3 Mt of petcoke was sold on the international market in 2014, compared to 1.2 Mt in 2013 and 1.1 Mt in 2012, to cement plants and electricity producers mainly in India, Turkey, Mexico, Brazil and other Latin American countries.

In 2014, TOTAL began to market the petcoke produced by the Jubail refinery in Saudi Arabia. Approximately 100 kt was sold mainly in the Asian market.

**2.2.3. Marketing**

To consolidate its position throughout the value chain and to leverage the synergies of the Group's other activities, TOTAL has been developing an activity to market gas as well as electricity and coal to end consumers in the United Kingdom, France, Spain, Germany, Belgium and the Netherlands.

In the **United Kingdom**, TOTAL markets gas and electricity to the industrial and commercial segments through its subsidiary Total Gas & Power Ltd. In 2014, volumes of gas sold amounted to 135 Bcf (3.8 Bm<sup>3</sup>), compared to 142 Bcf (4.0 Bm<sup>3</sup>) in 2013 and

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146 Bcf (4.2 Bm<sup>3</sup>) in 2012. Sales of electricity totaled approximately 5.3 TWh in 2014, compared to 4.7 TWh in 2013 and 3.9 TWh in 2012.

In **France**, TOTAL markets natural gas through its subsidiary Total Énergie Gaz (TEGAZ), the overall sales of which were 95 Bcf (2.7 Bm<sup>3</sup>) in 2014, compared to 141 Bcf (4.0 Bm<sup>3</sup>) in 2013 and 176 Bcf (5.0 Bm<sup>3</sup>) in 2012. This decrease is a consequence of TEGAZ's strategic repositioning on the SME market due to deteriorating margins and a more stringent regulatory environment. The Group also markets coal to its French customers through its subsidiary CDF Energie, with sales of approximately 0.7 Mt in 2014, compared to 0.81 Mt in 2013 and 0.97 Mt in 2012.

In **Spain**, TOTAL markets natural gas to the industrial and commercial segments through Cepsa Gas Comercializadora, in which it holds a 35% stake. In 2014, volumes of gas sold amounted to 94 Bcf (2.7 Bm<sup>3</sup>), compared to 101 Bcf (2.9 Bm<sup>3</sup>) in 2013 and 2012.

In **Germany**, Total Energie Gas GmbH, TOTAL's marketing subsidiary created in 2010, marketed 24 Bcf (0.7 Bm<sup>3</sup>) of gas in 2014 to industrial and commercial customers, compared to 14 Bcf (0.4 Bm<sup>3</sup>) in 2013 and 5 Bcf (0.15 Bm<sup>3</sup>) in 2012.

At the end of 2012, the Group enlarged its European marketing coverage by creating two marketing subsidiaries: Total Gas & Power in **Belgium**, and Total Gas & Power Nederland B.V. in **the Netherlands**. These two subsidiaries began to market natural gas to industrial and commercial customers in 2013, whereas the marketing of electricity has not yet started. The volume of gas supplied in 2014 was not substantial.

The Group also holds stakes in the marketing companies that are associated with the Altamira and Hazira LNG re-gasification terminals located in Mexico and India, respectively.

**2.2.4. Gas facilities**

TOTAL holds stakes in natural gas transport networks, gas storage facilities (both liquid and gaseous) and LNG re-gasification terminals downstream from its natural gas and LNG production.

**2.2.4.1. Natural gas transport, natural gas and LPG storage**

In **France**, TOTAL, through its 28.05% direct stake in Géométhane, owns natural gas storage in a salt cavern in Manosque with a capacity of 10.5 Bcf (0.3 Bm<sup>3</sup>). A 7 Bcf (0.2 Bm<sup>3</sup>) increase in storage capacity is scheduled to be commissioned in 2018.

In **South America**, TOTAL owns interests in several natural gas transport companies in Argentina and Brazil. These natural gas transport companies face a difficult operational and financial environment in Argentina stemming from the absence of an increase in transport tariffs and restrictions imposed on gas exports. GasAndes, a company in which TOTAL held a 56.5% stake, was sold in October 2014.

In **India**, TOTAL holds a 50% stake in South Asia LPG Limited (SALPG), a company that operates an LPG import and underground storage terminal located on the east coast of the country. This cavern, the first of its kind in India, has a storage capacity of 60 kt. In 2014, inbound vessels transported 1,069 kt of LPG, compared to 940 kt in 2013 and 950 kt in 2012.

**2.2.4.2. LNG re-gasification**

TOTAL has entered into agreements to obtain long-term access to LNG re-gasification capacity on the three continents that are the largest consumers of natural gas: North America (United States and Mexico), Europe (France and the United Kingdom), and Asia (India). This diversified market presence allows the Group to

access new liquefaction projects by becoming a long-term buyer of a portion of the LNG produced at these plants, thereby strengthening its LNG supply portfolio.

In **France**, TOTAL holds a 27.54% stake in the company Fosmax and has, through its subsidiary Total Gas & Power Ltd., a re-gasification capacity of 78 Bcf/y (2.25 Bm<sup>3</sup>/y). The terminal received 46 vessels in 2014, compared to 53 in 2013 and 56 in 2012.

In 2011, TOTAL acquired a 9.99% stake in Dunkerque LNG in order to develop a methane terminal project with a capacity of 459 Bcf/y (13 Bm<sup>3</sup>/y). Trade agreements have also been signed that allow TOTAL to reserve up to 2 Bm<sup>3</sup>/y of re-gasification capacity over a 20-year period. The project is underway and commissioning of the terminal is scheduled for the end of 2015.

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In the **United Kingdom**, through its equity interest in the Qatargas 2 project, TOTAL holds an 8.35% stake in the South Hook LNG re-gasification terminal with a total capacity of 742 Bcf/y (21 Bm<sup>3</sup>/y) and an equivalent right of use to the terminal. In 2014, the terminal re-gasified 67 cargoes, compared to 52 in 2013 and 68 in 2012.

In **Mexico**, TOTAL has reserved 25% of the capacity of the Altamira re-gasification terminal, *i.e.*, 59 Bcf/y (1.7 Bm<sup>3</sup>/y), through its 25% stake in Gas del Litoral.

In the **United States**, TOTAL has reserved a re-gasification capacity of approximately 353 Bcf/y (10 Bm<sup>3</sup>/y) at the Sabine Pass terminal in Louisiana over a 20-year period ending in 2029. In 2012, the Sabine Pass terminal received the authorization to export LNG from four liquefaction trains, which would involve converting the re-gasification plants into liquefaction plants in the future. As a result, TOTAL negotiated a modification to the conditions of the financial compensation owed to Cheniere, the terminal's operator, in relation to the commissioning of the successive liquefaction trains for the reservation of re-gasification capacity.

In **India**, TOTAL holds a 26% stake in the Hazira terminal, where the natural gas re-gasification capacity was increased in 2013 to 244 Bcf/y (6.9 Bm<sup>3</sup>/y). The terminal, located on the west coast of India in Gujarat state, is a merchant terminal with operations that cover both LNG re-gasification and gas marketing. Due to the Indian market's strong prospects for growth, a potential expansion project is under study to increase the terminal's capacity to 343 Bcf/y (9.7 Bm<sup>3</sup>/y).

### 2.2.5. Electricity generation

In a context of increasing global demand for electricity, TOTAL has developed expertise in the power generation sector, especially through cogeneration and combined-cycle power plant projects.

In **Abu Dhabi**, the Taweelah A1 gas-fired power plant, which is owned by Gulf Total Tractebel Power Company (20%), combines electricity generation and water desalination. The plant, in operation since 2003, currently has a net power generation capacity of 1,600 MW and a water desalination capacity of 385,000 m<sup>3</sup> per day. The plant's production is sold to Abu Dhabi Water and Electricity Company (ADWEC) as part of a long-term agreement.

In **Nigeria**, TOTAL holds a stake in the Afam VI power plant through its 10% interest in the Shell Petroleum Development Company (SPDC) joint venture. This plant is part of the government's plan to develop power generation and increase the share of natural gas production for domestic use.

In **Thailand**, TOTAL owns 28% of Eastern Power and Electric Company Ltd, which operates the combined-cycle gas power

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### **Item 4 - B.3. Refining & Chemicals Segment**

plant in Bang Bo with a capacity of 350 MW and has been in operation since 2003. The plant's production is sold to the Electricity Generating Authority of Thailand under a long-term agreement.

#### **2.2.6. Coal production**

For nearly thirty years, TOTAL, through its subsidiary Total Coal South Africa (TCSA), has produced and exported coal from South Africa primarily to Europe and Asia. In 2014, TCSA produced 3.3 Mt of coal.

The South African coal produced by TCSA or bought from third-parties' mines is either marketed locally or exported through the port of Richards Bay, in which TCSA holds a 4.8% interest.

In July 2014, TOTAL signed an agreement for the sale of TCSA with Exxaro, a mining company based in South Africa. The sale is pending approval of the relevant authorities. This transaction is expected to be finalized in 2015.

### **3. REFINING & CHEMICALS SEGMENT**

The Refining & Chemicals segment constitutes a large industrial group that encompasses refining, petrochemicals, and specialty chemicals operations. This segment was created on January 1, 2012, following the reorganization of the Downstream and Chemical segments, also includes Trading & Shipping activities.

#### **3.1. Refining & Chemicals**

Refining & Chemicals includes the Group's refining, petrochemicals and specialty chemicals businesses. The petrochemicals business includes base petrochemicals (olefins and aromatics) and polymer derivatives (polyethylene, polypropylene, polystyrene and hydrocarbon resins). The specialty chemicals business includes elastomer processing and electroplating chemistry. The volume of its Refining & Chemicals activities places TOTAL among the top ten integrated chemical producers in the world<sup>(1)</sup>.

Against the backdrop of rising worldwide demand for oil and petrochemicals driven by non-OECD countries and the entry of new capacities into the market, the strategy of Refining & Chemicals, in addition to the priority given to safety and environmental protection, involves:

- adapting production capacity to changes in demand in Europe by concentrating investments on large integrated platforms;
- consolidating industrial means of production and searching for opportunities for growth in the United States; and
- strengthening TOTAL's positions in Asia and the Middle East, in particular to gain access to advantaged oil and gas feedstocks and to benefit from market growth.

This strategy is underpinned by an effort to differentiate through the technology used and innovation found in its products and processes, while pursuing portfolio management to focus on core businesses.

Since 2012, Refining & Chemicals has launched a comprehensive program to improve operational efficiency and to generate synergies between its refining and petrochemicals activities. In particular, four industrial priorities were set: safety, availability of facilities, cost control, and energy efficiency. These ongoing action plans, combined with development projects on the major integrated platforms, perimeter changes and the growth of specialty chemicals, have already boosted Refining & Chemicals' results and should continue to improve the profitability of operations with the goal of making the most of the division's assets.

In December 2014, TOTAL completed the divestment of its subsidiary CCP Composites (100%), a player in the composite resins segment. In June 2013, TOTAL completed the divestment of its Fertilizers activity (Base Chemicals) in Europe, mainly through the

sale of all of its shares in GPN S.A., a leading producer of nitrogen fertilizers in France, and in the Belgian company Rosier S.A.<sup>(2)</sup>

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On February 2, 2015, TOTAL finalized the divestment of its wholly-owned subsidiary Bostik, specialized in adhesive chemicals, to the Arkema group. This divestment follows the offer received in September 2014. Bostik has approximately 4,900 employees over forty-eight production sites in the world and its sales were €1.5 billion (\$2 billion) in 2014.

### 3.1.1. Refining & Petrochemicals

TOTAL's refining capacity was 2,187 kb/d as of December 31, 2014, compared to 2,042 kb/d at year-end 2013 and 2,048 kb/d at year-end 2012. The Group's worldwide refined products sales (including trading operations) in 2014 were 3,769 kb/d, compared to 3,521 kb/d in 2013 and 3,561 kb/d in 2012.

TOTAL has equity stakes in twenty-one refineries (including nine operated by companies of the Group), located in Europe, the United States, the French West Indies, Africa, the Middle East and China.

The Refining & Chemicals segment manages the refining operations located in Europe (excluding the TotalErg joint venture in Italy), the United States, the Middle East and Asia, with a capacity of 2,098 kb/d at year-end 2014 (*i.e.*, 96% of the Group's total capacity<sup>(1)</sup>).

The petrochemicals businesses are located mainly in Europe, the United States, Qatar, South Korea and Saudi Arabia. Most of these sites are either adjacent or connected by pipelines to Group refineries. As a result, TOTAL's petrochemical operations are integrated within its refining operations.

The year 2014 was marked by the end of the startup period of the SATORP complex in Saudi Arabia, now fully operational. Through this project, approved in 2009, the Group holds a stake, alongside Saudi Aramco, in one of the most competitive refining & petrochemicals platforms in the world.

Moreover, through its equity interest in Samsung Total Petrochemicals Co. Ltd (50%), which operates the Daesan petrochemical complex, TOTAL completed the construction of two new EVA<sup>(4)</sup> and aromatics production units in 2014.

Finally, in Europe, TOTAL continued to develop its major investment project launched in 2013 on the Antwerp platform in Belgium, and completed the modernization of the Normandy

<sup>(1)</sup> Based on publicly available information, production capacities at year-end 2013.

<sup>(2)</sup> The divestment did not include TOTAL's interest in Grande Paroisse S.A., through which TOTAL has retained all liabilities related to the former activities of Grande Paroisse, and in particular those related to the AZF site in Toulouse.

<sup>(3)</sup> Earnings related to the refining assets in Africa, the French West Indies and the TotalErg joint venture are reported in the results of the Marketing & Services segment.

<sup>(4)</sup> Ethylene and vinyl acetate copolymers.

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platform in France with a new desulphurization unit that started up in August 2014. In February 2015, the Group announced a plan to adapt and secure the future of its Lindsey refinery in the United Kingdom.

**3.1.1.1. Europe**

TOTAL is the largest refiner in Western Europe<sup>(1)</sup>.

**Western Europe** accounts for 79% of the Group's refining capacity, *i.e.*, 1,736 kb/d at year-end 2014 and year-end 2013 compared to 1,742 kb/d at year-end 2012. The Group operates eight refineries in Western Europe (one in Antwerp, Belgium, five in France in Donges, Feyzin, Gonfreville, Grandpuits and La Mède, one in Immingham in the United Kingdom and one in Leuna, Germany) and owns stakes in the Schwedt refinery in Germany, the Zeeland refinery in the Netherlands and the Trecate refinery in Italy through its interest in TotalErg.

The Group's main petrochemical sites are located in Belgium, in Antwerp (steam crackers, aromatics, polyethylene) and Feluy (polyolefins, polystyrene), and in France, in Carling (steam cracker, aromatics, polyethylene, polystyrene), Feyzin (steam cracker, aromatics), Gonfreville (steam crackers, aromatics, styrene, polyolefins, polystyrene) and Lavéra (steam cracker, aromatics, polypropylene). Western Europe accounts for 50% of the Group's petrochemicals capacity, *i.e.*, 10,909 kt at year-end 2014 compared to 10,899 kt at year-end 2013 and 11,803 kt at year-end 2012. The decrease in 2013 was due essentially to the closure of one steam cracker in Antwerp.

**In France**, the Group owns five refineries and continues to adapt its refining capacities by shifting the production emphasis to diesel and improving operational efficiency against the backdrop of a structural decline in the demand for petroleum products in Europe and an increase in gasoline surpluses. The Group implemented its industrial plan intended to reconfigure the Gonfreville refinery in Normandy, France, between 2009 and 2014 to upgrade the refinery and shift the production emphasis to diesel. For this purpose, the investments resulted in reducing the annual distillation capacity to 12 Mt from 16 Mt, upsizing the hydrocracker unit for heavy diesel cuts and improving energy efficiency by lowering carbon dioxide emissions. Most of the new configuration was rolled out at the beginning of 2013 after a complete shutdown of the refinery. The project was completed in August 2014 with the startup of a new diesel desulfurization unit. Lastly, in November 2014, the Group announced a project to modernize the specialties production scheme of the Normandy complex, including a decrease in the base oils production capacity and an investment in the linear polyethylene (LPE) production line.

At the same time, the project to modernize petrochemical operations on the Normandy platform was completed in early 2012. This project improved the energy efficiency of the steam cracker and the high-density polyethylene unit.

In petrochemicals, the Group announced an investment plan in September 2013 for the Carling platform in Lorraine, France, to adapt its capacity and restore its competitiveness. The project provides for the development of new hydrocarbon resin and polymer production activities and the shutdown of the steam cracking activity in the second half of 2015.

**In Germany**, TOTAL holds equity stakes in the Leuna (100%) and Schwedt (16.7%)<sup>(2)</sup> refineries. In petrochemicals, in February 2015, the Group acquired the majority stake in Polyblend, a German manufacturer of polyolefin compounds used in the automotive industry. This acquisition will enable synergies to be developed with the Carling site, located 150 km away.

**In Belgium**, the Group announced the launch of a major project in 2013 to modernize its Antwerp platform. This project consists of two parts:

the construction of new conversion units in response to the shift in demand towards lighter oil products with a very low sulfur content; and the construction of a new unit to convert part of the combustible gases recovered from the refining process into raw materials for petrochemical units. As part of this modernization plan, two of the site's oldest production units were shut down: a steam cracker in 2013 and a polyethylene production line in November 2014.

TOTAL built a unit in Feluy, which started up in 2014, that produces latest-generation expandable polystyrene for the fast-growing insulation market.

Moreover, in 2012, TOTAL acquired 35% of Fina Antwerp Olefins, thus becoming the sole owner of Europe's second largest base petrochemicals (monomers) production plant<sup>(3)</sup>, renamed Total Olefins Antwerp.

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In the **United Kingdom**, in February 2015, TOTAL launched a plan to adapt and secure the future of its Lindsey refinery. In addition to shutting down one of the two crude distillation units and associated units, which will reduce its capacity by 5 Mt/y, the plan entails revamping the conversion block, adapting logistics operations and simplifying the refinery's organization. The initial outlay will be \$50 million, followed by an investment of \$220 million over the next five years for maintenance and other improvements required to comply with changing regulations.

In 2013, TOTAL shut down its 70 kt/y polystyrene production site at Stalybridge, while continuing its commercial activity for polymers.

In **Italy**, TotalErg (49%) holds a 24.45% stake in the Trecate refinery. The Rome refinery, which was wholly-owned by TotalErg, was converted into a depot in 2012.

### 3.1.1.2. *North America*

The Group's main sites are located in Texas, in Port Arthur (refinery, steam cracker), Bayport (polyethylene) and La Porte (polypropylene), and in Louisiana, in Carville (styrene, polystyrene).

Located on the same site in Port Arthur, TOTAL wholly owns a 169 kb/d capacity refinery as well as a 40% stake in a steam cracker (BASF Total Petrochemicals, BTP). The Group is working to strengthen the synergies between these two plants.

The new pipeline connecting the Port Arthur refinery with the Sun terminal in Nederland was commissioned in 2014, allowing easy access to all domestic crudes, at an advantage compared with the international market.

As a result of the investments made to adapt its furnaces and build a tenth ethane furnace, which was commissioned in March 2014,

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*(1) Based on publicly available information, 2013 refining capacities.*

*(2) End 2014, the Group signed a memorandum of understanding to sell this stake in the Schwedt refinery.*

*(3) Based on publicly available information, capacities at year-end 2013.*

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### **Item 4 - B.3. Refining & Chemicals Segment**

the BTP cracker is now able to produce more than 1 Mt/y of ethylene, including more than 85% from advantaged feedstock (mainly ethane, propane, butane). BTP thus benefits from favorable market conditions in the United States. Furthermore, TOTAL has initiated studies regarding the construction of a new ethane steam cracker on the Port Arthur site, in synergy with the refinery and BTP steam cracker. The investment decision is expected to be made in 2016.

#### **3.1.1.3. Asia and the Middle East**

TOTAL is continuing to expand in growth areas and is developing sites in countries with favorable access to raw materials.

In **Saudi Arabia**, the joint venture Saudi Aramco Total Refining and Petrochemical Company (SATORP), created in 2008 by TOTAL (37.5%) and Saudi Aramco (Saudi Arabian Oil Company, 62.5%), built and operates a 400 kb/d refinery in Jubail. Saudi Aramco plans to retain a 37.5% interest in SATORP, with the remaining 25% expected to be listed on the Saudi stock exchange. Most of the various units of SATORP were gradually commissioned in 2013 and the commercial exports of petroleum products started in September 2013. The startup phase was successfully completed in the first half of 2014 and production reached full capacity in mid-2014.

The configuration of this refinery is designed for processing heavy crudes produced in Saudi Arabia and selling fuels and other light products that meet strict specifications and that are mainly intended for export. The refinery is also integrated with petrochemical units: a 700 kt/y paraxylene unit, a 200 kt/y propylene unit, and a 140 kt/y benzene unit.

In **China**, TOTAL holds a 22.4% stake in WEPEC, a company that operates a refinery located in Dalian and that also produces polypropylene.

The Group is also active through its 200 kt/y capacity polystyrene plant in Foshan in the Guangzhou region. A new polystyrene compounds unit started up on this site in the first quarter of 2013. In September 2014, TOTAL also successfully began production on a new 200 kt/y polystyrene plant in Ningbo in the Shanghai region.

Finally, TOTAL is continuing to study a project in Inner Mongolia to produce polyolefins from coal (refer to 3.1.1.8.1. Coal to polymers, below).

In **South Korea**, TOTAL holds a 50% stake in Samsung Total Petrochemicals Co. Ltd. (STC), which operates the petrochemical complex in Daesan (condensate splitter, steam cracker, styrene, paraxylene, polyolefins). To keep up with growth in Asian markets, two major construction projects were completed in 2014, thereby doubling the site's capacity compared to 2011. The following two units were thus started up successfully in February and July 2014, respectively:

- a new EVA unit with about 240 kt/y capacity; and
- a new aromatics unit with a capacity of 1.5 Mt/y of paraxylene and benzene, the raw material of which is supplied by a new condensate splitter that also produces kerosene (1.5 Mt/y) and diesel (1.0 Mt/y).

The site's paraxylene production capacity increased as a result of these new units to 1.8 Mt/y.

In November 2014, Samsung, which holds a 50% stake in STC, announced the divestment of 81% of its interest in the SGC company, which holds of its interest in STC. This divestment is

expected to be completed by mid-2015. The Group does not expect this transaction to have a material impact on the joint venture's operations.

In **Qatar**, the Group holds interests<sup>(1)</sup> in two ethane-based steam crackers (Qapco, Ras Laffan Olefin Cracker (RLOC)) and four polyethylene lines (Qapco, Qatofin), including the Qatofin linear low-density polyethylene plant in Messaied with a capacity of 450 kt/y and a new 300 kt/y low-density polyethylene line operated by Qapco, which started up in 2012.

TOTAL holds a 10% stake in the Ras Laffan condensate refinery, which has a capacity of 146 kb/d. The construction project to double the refinery's capacity started in April 2014 and is expected to be completed in 2016. The project also includes a new diesel hydrotreating unit, which was commissioned in May 2014.

In **Singapore**, the Group sold its 95 kt/y capacity polystyrene production site in November 2014.

#### **3.1.1.4. Crude oil refining capacity**

The table below sets forth TOTAL's crude oil refining capacity<sup>(\*)</sup>:



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As of December 31, (kb/d)	2014	2013	2012
Nine refineries operated by Group companies:			
Normandy (100%)	247	247	247
Provence-La Mède (100%)	153	153	153
Donges (100%)	219	219	219
Feyzin (100%)	109	109	109
Grandpuits (100%)	101	101	101
Antwerp (100%)	338	338	338
Leuna (100%)	227	227	227
Lindsey Immingham (100%)	207	207	207
Port-Arthur (100%)	169	169	169
<b>Subtotal</b>	<b>1,770</b>	<b>1,770</b>	<b>1,770</b>
Other refineries in which the Group has equity stakes <sup>(b)</sup>	417	272	278
<b>Total</b>	<b>2,187</b>	<b>2,042</b>	<b>2,048</b>

<sup>(a)</sup> Capacity data based on refinery process unit stream-day capacities under normal operating conditions, less the impact of shutdown for regular repair and maintenance activities averaged over an extended period of time.

<sup>(b)</sup> TOTAL's share in the twelve refineries in which it has equity stakes ranging from 10% to 55% (one each in the Netherlands, Germany, China, Qatar, Saudi Arabia, Italy and Martinique and five in Africa). In September 2014, TOTAL signed an agreement to sell its 50% stake in Société Anonyme de la raffinerie des Antilles (SARA) in Martinique. This transaction is subject to the approval of the relevant competition authorities.

### 3.1.1.5. Refined products

The table below sets forth by product category TOTAL's net share of refined quantities produced at the Group's refineries.

(kb/d)	2014	2013	2012
Gasoline	344	340	351
Aviation fuel <sup>(b)</sup>	148	146	153
Diesel and heating oils	787	739	734
Heavy fuels	134	133	160
Other products	329	322	338
<b>Total</b>	<b>1,742</b>	<b>1,680</b>	<b>1,736</b>

<sup>(a)</sup> For refineries not 100% owned by TOTAL, the production shown is TOTAL's equity share of the site's overall production.

<sup>(b)</sup> Avgas, jet fuel and kerosene.

<sup>(1)</sup> TOTAL interests: Qapco (20%); Qatofin (49%); RLOC (22.5%).

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Item 4 - B.3. Refining &amp; Chemicals Segment

**3.1.1.6. Utilization rate**

The tables below<sup>(1)</sup> set forth the utilization rate of the Group's refineries:

On crude and other feedstock <sup>(a)(b)</sup>	2014	2013	2012
France	77%	78%	82%
Rest of Europe	88%	87%	88%
Americas	106%	100%	99%
Asia and the Middle East	50%	75%	67%
Africa	77%	78%	75%
<b>Average</b>	<b>81%</b>	<b>84%</b>	<b>86%</b>

<sup>(a)</sup> Including equity share of refineries in which the Group has a stake.

<sup>(b)</sup> Crude + crackers feedstock/capacity and distillation at the beginning of the year (2014: SATORP's capacity included from January 1).

On crude <sup>(a)(b)</sup>	2014	2013	2012
<b>Average</b>	<b>77%</b>	<b>80%</b>	<b>82%</b>

<sup>(a)</sup> Including equity share of refineries in which the Group has a stake.

<sup>(b)</sup> Crude/distillation capacity at the beginning of the year (2014: SATORP's capacity included from January 1).

**3.1.1.7. Petrochemicals: breakdown of TOTAL's main production capacities**

As of December 31, (in thousands of tons)	2014				2013	2012
	Europe	North America	Asia and Middle East <sup>(a)</sup>	Worldwide	Worldwide	Worldwide
Olefins <sup>(b)</sup>	4,949	1,345	1,498	7,791	7,654	8,039
Aromatics <sup>(c)</sup>	2,893	1,512	2,368	6,773	5,635	5,795
Polyethylene	1,120	445	773	2,338	2,289	2,239
Polypropylene	1,350	1,200	400	2,950	2,895	2,875
Polystyrene	597	700	508	1,805	1,530	1,595
Other <sup>(d)</sup>			63	63	63	358
<b>Total</b>	<b>10,909</b>	<b>5,202</b>	<b>5,609</b>	<b>21,720</b>	<b>20,065</b>	<b>20,900</b>

<sup>(a)</sup> Including interests in Qatar, 50% of Samsung Total Petrochemicals Co. Ltd. and 37.5% of SATORP in Saudi Arabia.

<sup>(b)</sup> Ethylene + propylene + butadiene.

<sup>(c)</sup> Including monomer Styrene.

<sup>(d)</sup> Mainly monoethylene glycol (MEG) and cyclohexane.

**3.1.1.8. Development of new avenues for the production of fuels and polymers**

In addition to optimizing existing processes, TOTAL is exploring new ways for monetizing carbon resources, conventional or otherwise (natural gas, coal, biomass, waste). A number of innovative projects are being examined that entail defining access to the resource (nature, location, supply method, transport), the nature of the molecules and target markets (fuels, lubricants, petrochemicals, specialty chemicals), and the most appropriate, efficient and environmentally-friendly conversion processes.

**3.1.1.8.1. Coal to polymers**

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TOTAL has developed know-how in the various processes used to convert coal into higher value products by gasification. These efforts allow a better understanding of the technological issues specific to each targeted market (*e.g.*, fuels through Fischer-Tropsch process, methanol, or syngas), particularly in terms of energy optimization, water consumption and carbon capture.

TOTAL is studying a coal-to-olefin (CTO) conversion project that would be located in Inner Mongolia in China in partnership with the China Power Investment Corporation utility company. This project, with a capacity of about 800 kt/y of olefins, would use the innovative methanol-to-olefins/olefins cracking process (MTO/OCP), which the Group successfully tested in 2013 on a demonstration unit at Feluy, Belgium. The Chinese authorities gave their initial approval of the project in November 2013. The project anticipates submitting its environmental impact assessment to the Ministry of the Environment mid-2015, followed by the start of its FEED studies.

### **3.1.1.8.2. Natural gas to liquids**

TOTAL continues to develop its know-how in the conversion of natural gas to fuel. For large-scale projects (more than 10 kboe/d), TOTAL is consolidating its know-how in the most efficient conversion processes and is studying innovative potential routes of gas monetization. TOTAL is also conducting research into small-scale concepts, such as flared gas solutions.

### **3.1.1.8.3. Biomass to polymers**

TOTAL is involved in the development of processes dedicated or related to the conversion of biomass to polymers. The main area of focus is the development of a polylactic acid (PLA) production technology through Futerro, a joint venture with Galactic, a lactic acid producer, as well as developing a technology for dehydration of bio-alcohols into olefins (monomers for the manufacture of large conventional polymers), in collaboration with IFPEN/Axens. Several projects are under study based on these technologies.

### **3.1.1.8.4. Biomass to fuels**

In Europe, TOTAL produces biofuel, namely hydrogenated vegetable oils for incorporation into diesel, and ether produced from ethanol and isobutene for incorporation into gasoline.

TOTAL is a member of the BioTFuel consortium, the objective of which is to develop a chain for converting lignocellulose into fungible, sulfur-free liquid products through gasification and synthesis using the Fischer-Tropsch process. To benefit from economies of scale, it is envisaged to convert lignocellulosic feedstock into a blend with fossil fuel resources. This development

<sup>(1)</sup> NB: Ras Laffan refinery contribution is included in utilization rates from 2013.

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### **Item 4 - B.3. Refining & Chemicals Segment**

involves an initial pilot demonstration phase located on the Dunkirk site in France for which construction was started in September 2014.

In 2014, the Group incorporated:

in gasoline, 473 kt of ethanol<sup>(1)</sup> at its European refineries and several depots<sup>(2)</sup>; and  
in diesel, 1,800 kt of VOME or HVO<sup>(3)</sup> at its European refineries and several depots<sup>(2)</sup>.

#### **3.1.2. Specialty chemicals**

The specialty chemicals businesses include elastomer processing (Hutchinson) and electroplating chemistry (Atotech). They primarily serve the automotive, construction, electronics, aerospace and convenience goods markets, for which marketing strategy, innovation and customer service are key drivers. TOTAL markets specialty products in more than sixty countries and intends to develop by combining organic growth and targeted acquisitions. This development is focused on high-growth markets and the marketing of innovative products with high added value that meet the Group's sustainable development approach.

In 2014, consolidated worldwide sales of specialty chemicals activities (excluding Bostik) totaled €4.4 billion (\$5.9 billion), a 6% increase compared to 2013 and up 7% compared to 2012.

On February 2, 2015, TOTAL finalized the divestment of its wholly-owned subsidiary Bostik, specialized in adhesive chemicals, to the Arkema group. This divestment follows the offer received from Arkema in September 2014. Bostik counts approximately 4,900 employees over forty-eight global production sites with sales of €1.5 billion (\$2 billion) in 2014.

##### **3.1.2.1. Elastomer processing**

Hutchinson designs and provides innovative and tailor-made solutions to support automotive and aircraft manufacturers and major industries (defense, energy) across the world. Among the industry's leaders worldwide, the company mainly develops anti-vibration and fluid management systems as well as sealing solutions that combine performance and energy efficiency.

Hutchinson has more than ninety production sites and 28,900 employees across the world to cater to its customers.

Hutchinson's sales were €3.5 billion in 2014 (\$4.6 billion), up 6% compared to 2013.

This growth was due to the strong performance of the world's automotive markets, especially German and Asian manufacturers. In July 2013, Hutchinson entered into a joint venture with the Japanese company, Nichirin, in the automobile brake hose segment at Palamos in Spain.

In 2014, Hutchinson also performed well on its other markets, particularly civil aeronautics and helicopters. To consolidate its position, at the end of 2012, Hutchinson acquired Marquez, a

Canadian company specializing in composite air-conditioning circuits. Moreover, to enhance its product portfolio for the oil and gas industry, Hutchinson acquired Gasket International in July 2013, a company that specializes in the production of sealing parts for valves.

Since 2014, all Hutchinson entities that previously operated under twenty-six different brand names have been marketed under a unique Hutchinson brand name for greater consistency and visibility.

##### **3.1.2.2. Electroplating**

Atotech is the leading company in the electroplating sector based on worldwide sales<sup>(4)</sup>. It is active in the markets for electronics (printed circuits, semiconductors) and general surface treatments (automotive, construction, furnishing).

Atotech has seventeen production sites worldwide, including seven in Asia, six in Europe, three in North America and one in South America.

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The company's sales totaled €0.95 billion in 2014 (\$1.3 billion), up by 7% compared to 2013, primarily due to the growth in sales of electroplating equipment for the electronics market.

In 2014, Atotech successfully pursued its strategy to differentiate its products through a comprehensive service provided to its customers in terms of equipment, processes, design of facilities and chemical products and through the development of green, innovative technologies to reduce environmental footprint. This strategy relies on global coverage provided by its technical centers located near customers.

Atotech intends to continue to grow in Asia, which already represents approximately 67% of its global sales.

In order to strengthen its position in the electronics market, Atotech plans to increase and modernize its production capacity in Asia with two major projects in Malaysia and China. By relocating production as close as possible to its markets, these two projects are also part of its cost-cutting strategy.

### 3.2. Trading & Shipping

Trading & Shipping focuses on serving the Group by:

- selling and marketing the Group's crude oil production;
- providing a supply of crude oil for the Group's refineries;
- importing and exporting the appropriate petroleum and refined products for the Group's refineries to be able to adjust their production to the needs of local markets;
- chartering appropriate ships for these activities; and
- undertaking trading on various derivatives markets.

Trading & Shipping conducts its activities worldwide through various wholly-owned subsidiaries, including TOTSA Total Oil Trading S.A., Atlantic Trading & Marketing Inc., Total Trading Asia Pte, Total Trading and Marketing Canada L.P., Total European Trading, and Chartering & Shipping Services S.A.

<sup>(1)</sup> Including ethanol from ETBE (ethyl-tertio-butyl-ether) and biomethanol from bio-MTBE (methyl-tertio-butyl-ether), expressed in ethanol equivalent and biomethanol. Reference for bio content of ETBE and bio-MTBE is the EU Renewable Energy Directive.

<sup>(2)</sup> Zeeland refinery included (TOTAL share).

<sup>(3)</sup> VOME: vegetable-oil-methyl-ester. HVO: hydrotreated vegetable oil.

<sup>(4)</sup> Based on publicly available information, 2014 consolidated sales.

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Item 4 - B.3. Refining &amp; Chemicals Segment

**3.2.1. Trading**

TOTAL is one of the world's largest traders of crude oil and refined products on the basis of volumes traded. Trading of physical volumes of crude oil and refined products amounted to 4.9 Mb/d in 2014.

The table below sets forth selected information for each of the past three years with respect to Trading's worldwide crude oil sales and supply sources, and refined products sales.

*Trading's crude oil sales and supply and refined products sales<sup>(a)</sup>*

(kb/d)	2014	2013	2012
<b>Group's worldwide liquids production</b>	<b>1,034</b>	<b>1,167</b>	<b>1,220</b>
Purchased by Trading from Exploration & Production	791	916	976
Purchased by Trading from external suppliers	2,227	1,994	1,904
<b>Total of Trading's supply</b>	<b>3,018</b>	<b>2,910</b>	<b>2,880</b>
Sales by Trading to Refining & Chemicals and Marketing & Services segments	1,520	1,556	1,569
Sales by Trading to external customers	1,498	1,354	1,311
<b>Total of Trading's sales</b>	<b>3,018</b>	<b>2,910</b>	<b>2,880</b>
<b>Total of Trading's refined products sales</b>	<b>1,854</b>	<b>1,628</b>	<b>1,608</b>

<sup>(a)</sup> Including condensates.

Trading operates extensively on physical and derivatives markets, both organized and over the counter. In connection with its trading activities, TOTAL, like most other oil companies, uses derivative energy instruments (futures, forwards, swaps and options) with the aim of adjusting its exposure to fluctuations in the price of crude oil and refined products. These transactions are entered into with various counterparties.

For additional information concerning derivatives transactions by Trading & Shipping, see Notes 30 (Financial instruments related to commodity contracts) and 31 (Market risks) to the Consolidated Financial Statements.

All of TOTAL's Trading activities are subject to strict internal controls and trading limits.

		2014	2013	2012	2014/13	min 2014		max 2014	
Brent ICE 1 <sup>st</sup> Line <sup>(a)</sup>	(\$/b)	99.45	108.70	111.68	-8.5%	57.33	(Dec 29)	115.06	(Jun 19)
Brent ICE 1 <sup>st</sup> Line <sup>(b)</sup>	(\$/b)	98.30	103.04	106.66	-4.6%	65.50	(Dec 16)	109.19	(Jun 24)
Backwardation time structure (12 <sup>th</sup> 1 <sup>st</sup> )	(\$/b)	1.15	5.67	5.01	-79.7%	7.00	(Jun 13)	-8.37	(Dec 30)
WTI NYMEX 1 <sup>st</sup> Line <sup>(a)</sup>	(\$/b)	92.91	98.05	94.15	-5.2%	53.27	(Jun 24)	107.26	(Jan 02)
WTI vs. Brent 1 <sup>st</sup> Line	(\$/b)	-6.54	-10.66	-17.53	-38.7%	-14.95	(Jan 13)	1.11	(Nov 27)
Gasoil ICE 1 <sup>st</sup> Line <sup>(a)</sup>	(\$/t)	840.09	918.98	953.42	-8.6%	512.25	(Dec 30)	940.75	(Jan 01)
ICE Gasoil vs ICE Brent	(\$/b)	13.31	14.65	16.30	-9.1%	6.85	(Jun 12)	18.00	(Nov 28)
VLCC Ras Tanura Chiba BITR <sup>(c)</sup>	(\$/t)	13.32	11.83	12.82	12.7%	8.98	(May 30)	22.64	(Dec 17)

<sup>(a)</sup> 1<sup>st</sup> Line: prices on ICE (Intercontinental Exchange) or NYMEX (New York Mercantile Exchange) Futures for delivery in month M+1.

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*(b) 12th Line: prices on ICE Futures for delivery in month M+12.*

*(c) VLCC: Very Large Crude Carrier. BITR: Baltic International Tanker Routes.*

In 2014, the activities of Trading were affected by the economic environment and the world oil market situation as described below.

The increasing surplus supply in the world oil market led to a steady drop in prices from mid-year, decreasing by more than 40% by the end of December. The surplus caused crude prices to flip from backwardation<sup>(1)</sup> in the first half of the year to contango thereafter. The surplus resulted from continued strong growth in North American oil production in 2014, which substantially outstripped weak growth in global oil demand. North America accelerated the construction of infrastructure (pipelines and rail networks) to move rising supply from the center of the continent and the southwest of Texas to refineries located on the American coast of the Gulf of Mexico and the east coast of the United States.

In a less favorable world economic context, the growth in world demand for oil slowed from +1.2 Mb/d<sup>(2)</sup> in 2013 to +0.5 Mb/d<sup>(2)</sup> in 2014, due notably to slower growth in natural gas liquids (NGL) demand in the United States and slower growth in demand for

gasoil east of the Suez and in Europe, as well as the slowdown in the growth in demand for gasoline in the United States and the Middle East. Demand for fuel oil continued its decline both in onshore uses and in marine bunkers. The wave of extreme cold that gripped North America in the first quarter of 2014 stimulated demand for heating oil but depressed demand for other products (notably NGL) as the cold-snap slowed economic activity. In Europe, the mild temperatures recorded in the first quarter of 2014 decreased heating oil consumption. The slowdown in economic activity and the drop in coal mining and related transportation of coal led to a decline in the use of diesel in China. In the Middle East, diesel and gasoline consumption fell as the conflict in northern Iraq interrupted supply to local consumers.

Estimated global oil supply increased to +1.6 Mb/d in 2014 compared to +0.6 Mb/d in 2013. Non-OPEC production grew by approximately +1.9 Mb/d, with an increase of +1.6 Mb/d in North America (United States, Canada and Mexico), +0.2 Mb/d in Latin America, and +0.1 Mb/d in the North Sea. In the other regions,

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*(1) Backwardation is a term used to describe an energy market in which the value of the spot, or prompt, price is higher than the value of the forward or futures contracts trading concurrently. The reverse situation is referred to as contango.*

*(2) TOTAL estimates.*

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### Item 4 - B.3. Refining & Chemicals Segment

production either declined or stagnated. Overall OPEC crude oil production continued to contract (-0.3 Mb/d compared with -1.0 Mb/d in 2013), as the losses recorded in Libya and Iraq were not offset by the increases generated in other member countries. During most of the year, crude oil production capacity of approximately 2.5 Mb/d was rendered unavailable in several OPEC and non-OPEC countries by political tensions, conflicts and sanctions imposed on certain countries. Saudi production, at approximately 9.6 Mb/d, was stable in 2014 compared to 2013.

As supply growth greatly exceeded demand growth in 2014, surplus supply *vis-à-vis* demand increased to reach approximately +1.0 Mb/d versus +0.1 Mb/d in 2013. This imbalance contributed to the fall in prices in the second half of the year.

In the first half of the year, prompt prices for Brent ICE (1<sup>st</sup> line) fluctuated primarily between \$105/b and \$110/b, peaking at \$115.1/b in mid-June and averaging around \$109/b. Subsequently, Brent ICE prices fell steadily, reaching \$57.3/b on December 31 and this drop continued in January 2015 before climbing back to \$60/b in February. As prices declined, the ICE Brent price structure flipped from backwardation to contango, supporting commercial storage of crude and better refinery margins in the second half of 2014.

The continuing development of rail and pipeline infrastructure in the United States to move the increasing supply surplus from the mid-continent to refineries on the coasts contributed to a marked contraction in the price spread between WTI and Brent in 2014

(from -\$10.7/b in 2013 to -\$6.5/b in 2014). In 2014, the launch between January and April of the Marketlink pipeline connecting Cushing (Oklahoma) to the Gulf of Mexico in Texas and the commissioning in the third and fourth quarters of other pipelines in the Permian region in west Texas to the Gulf of Mexico helped restore balance to the crude market in the center of the United States. WTI was discounted by only -\$3.9/b vs. Brent in the fourth quarter of 2014.

While global refining capacity grew by approximately +1.3 Mb/d in 2014, estimated crude throughputs increased by only about +0.6 Mb/d, held back by the slowdown in demand growth and weaker refining margins outside of North America in the first half of the year. Margins increased with the flip in crude oil prices to contango, leading to a slight growth in throughputs in the second half of 2014 compared to 2013. Most new refining capacity was concentrated in China (+0.9 Mb/d) and the Middle East (+0.5 Mb/d). Structurally robust, refining margins in the United States pushed local refineries to maximize their throughputs to reach exceptionally high operating rates, which supported a high level of diesel exports. The ICE gasoil premium to Brent in northwest Europe began the year at a sustained level due to the wave of extreme cold in North America, but then deteriorated considerably in mid-year due to the weakness in demand and substantial international supply. It closed the year much stronger as demand improved late in the year while refinery maintenance tightened supply.

#### 3.2.2. Shipping

The transportation of crude oil and refined products necessary for the activities of the Group is coordinated by Shipping. These requirements are fulfilled through balanced use of the spot and time-charter markets. Shipping maintains a rigorous safety policy, mainly through a strict selection of chartered vessels. Like a certain number of other oil companies and ship owners, in its Shipping activity the Group uses freight rate derivative contracts to adjust its exposure to freight rate fluctuations.

In 2014, Shipping chartered nearly 3,000 voyages to transport approximately 122 Mt of crude oil and refined products, compared to 115 Mt in 2013. As of December 31, 2014, Shipping employed a fleet of forty-eight vessels (including seven LPG carriers), none of which were single-hulled, that were chartered under long-term or medium-term agreements. The fleet has an average age of less than six years.

#### *Freight rate averages of three representative routes for crude transportation*

		2014	2013	2012	min 2014		max 2014	
VLCC Ras Tanura Chiba BITR <sup>(a)</sup>	(\$/t)	13.32	11.83	12.82	8.98	(May 30)	22.64	(Dec 17)
Suezmax Bonny Philadelphia BITR	(\$/t)	16.29	13.41	14.44	11.36	(Feb 13)	31.83	(Nov 19)
Aframax Sullom Voe Wilhemshaven BITR	(\$/t)	8.46	7.02	6.48	6.44	(Mar 7)	17.01	(Jan 22)

<sup>(a)</sup> VLCC: Very Large Crude Carrier. BITR: Baltic International Tanker Routes.

In 2014, the shipping market witnessed a positive turnaround in oil transport activities, especially for larger crude and product tankers. Conditions were less favorable, meanwhile, for medium-sized petroleum product carriers, although year-end brought a slight improvement to the economic environment. During the



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second half of 2014, marine bunker prices, driven by decreasing crude prices, substantially dropped, which considerably improved ship owners' results. However, transport costs benefited little from this situation.

After contracting in 2013, global demand for the transport of crude oil maintained the same level in 2014. The decrease in North American imports, driven by the sharp increase in domestic production, was once again offset by the growing transport needs in Asia. This continent continued to diversify its supplies from more distant regions (South America, West Africa). At the same time, the

growth in the fleet slowed to a level that had not been seen for many years. This context rebalanced supply and demand and resulted in a return to high volatility and freight rates that were, on average, higher than in 2013.

The situation in the petroleum product maritime shipping market continued to be good overall for larger vessels, which benefited from the lengthening of trips. On the one hand, arbitrages in favor of routes to Asia, particularly the flows of naphtha from Europe which continued at the same pace as in 2013, and on the other hand, exports from new Middle-East and Far-East refineries, contributed to a strong growth in demand. The freight rates were somewhat weaker for medium-size product carriers due to the delivery of many new tankers.

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Item 4 - B.4. Marketing &amp; Services Segment

**4. MARKETING & SERVICES SEGMENT**

The Marketing & Services segment was created on January 1, 2012, following the reorganization of the Downstream and Chemicals segments, and includes worldwide supply and marketing activities in the oil products field, as well as, since July 1, 2012, the activity of New Energies.<sup>(1)</sup>

**4.1. Marketing & Services**

Since January 1, 2012, the Marketing & Services (M&S) business segment has been a coherent structure dedicated to the development of TOTAL's oil products distribution activities (and related services) throughout the world. Present in more than 150 countries<sup>(2)</sup>, M&S relays TOTAL's brand image to its customers, both private and professional. TOTAL's highly visible, innovative and assertive lineup of solutions is presented to its customers through large advertising campaigns, substantial R&D expenses and an ambitious digital transformation plan.

M&S follows a proactive, primarily organic, development strategy involving a geographic repositioning towards high-growth areas. This repositioning is accelerated by the sale of certain business activities in Europe (sale in progress of the LPG marketing subsidiary in France and the LPG/commercial sales activity in Switzerland).

TOTAL is one of the leading distributors of petroleum products in Western Europe<sup>(3)</sup> and the leading distributor<sup>(4)</sup> on the African continent.

M&S three main areas of activity are:

A network of slightly more than 15,500 service stations. M&S aims to consolidate its market share in the mature areas of Western Europe and further develop its position in high-growth markets. The network's market share in Africa increased from 15% in 2012 to 18% in 2014;

The production and sales of lubricants, areas in which M&S is expanding its partnerships internationally to support growth. The M&S global market share has increased from 4.2% in 2012 to 4.5%<sup>(5)</sup> in 2014; and

The distribution of products and services for professional markets: M&S is a major player in the market for jet fuel, special fluids, bitumen, heavy fuel oils, marine bunker and LPG.

As part of its activities, M&S holds stakes in five refineries in Africa, one in Europe through its share in TotalErg (49%) and one in the Caribbean through its 50% stake in SARA (Société anonyme de la raffinerie des Antilles), which is in the process of being sold.

**4.1.1. Sales of refined products**

The following table presents the Group's refined products sales by geographic area:

(kb/d)	2014	2013	2012
Europe	1,100	1,139	1,160
France	547	575	566
Europe, excluding France	553	564	594
Americas	78	86	53
Africa	380	326	307
Rest of the World <sup>(a)</sup>	211	198	190

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<b>Total excluding international trading and refinery bulk sales</b>	<b>1,769</b>	<b>1,749</b>	<b>1,710</b>
International trading	1,385	1,155	1,161
Refinery bulk sales <sup>(b)</sup>	615	617	690
<b>Total including international trading and refinery bulk sales</b>	<b>3,769</b>	<b>3,521</b>	<b>3,561</b>

<sup>(a)</sup> Includes Asia-Pacific and Middle East.

<sup>(b)</sup> Data for UK procurement/exchange reprocessed for 2012 and 2013.

For data on biofuels, refer to 3. Refining & Chemicals segment 1.1.8. Development of new avenues for the production of fuels and polymers, above.

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<sup>(1)</sup> As a result of the reorganization, certain information has been restated.

<sup>(2)</sup> Including via national distributors.

<sup>(3)</sup> Publicly available information, based on quantities sold in 2014.

<sup>(4)</sup> PFC Energy and Company data 2014.

<sup>(5)</sup> Company data.

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### Item 4 - B.4. Marketing & Services Segment

#### 4.1.2. Service stations

The table below sets forth the number of Group service stations:

As of December 31,	2014	2013	2012
Europe <sup>(a)</sup>	8,557	8,875	9,111
France <sup>(b)</sup>	3,727	3,813	3,911
Europe, excluding France	4,830	5,062	5,200
of which TotalErg	2,749	3,017	3,161
Africa	3,991	3,726	3,601
Rest of the world <sup>(c)</sup>	2,281	2,219	2,013
AS24 network	740	731	700
<b>Total</b>	<b>15,569</b>	<b>15,551</b>	<b>15,425</b>

<sup>(a)</sup> Excluding AS24 network.

<sup>(b)</sup> TOTAL, Total Access, Elf and Elan-branded service stations.

<sup>(c)</sup> Including the Americas, Asia-Pacific and the Middle East.

#### 4.1.3. Europe

In Europe, the Group continues to optimize its Marketing activities while growing in growth markets and segments.

In **Western Europe**, TOTAL has a network of more than 8,500 service stations<sup>(1)</sup> spread over France, Belgium, the Netherlands, Luxembourg, Germany and Italy. TOTAL is regaining market share in these areas (+1%<sup>(2)</sup> over the 2012-2014 period) by developing an innovative and diversified line of products and services.

In **France**, the dense retail network includes 1,570 TOTAL-branded service stations, more than 650 Total Access stations (service station concept combining low prices and premium TOTAL-branded fuels and services) and approximately 1,500 Elan service stations, which are located mainly in rural areas. Since its launch in 2011, Total Access has led to the Group regaining more than 2%<sup>(2)</sup> market share.

In addition, TOTAL offers an expanded fuel and service offering to 131,000 vehicle fleets (*i.e.*, 1.9 million GR card holders).

TOTAL holds stakes in twenty-eight depots in France, five of which are operated by Group companies.

In **Germany**, TOTAL is the country's fourth largest operator and continues to expand its network. With more than 1,160 service stations at year-end 2014, the Group has gained 1% in market share in two years.

In **Italy**, TOTAL holds a 49% stake in TotalErg, which is the country's fourth largest operator with close to 2,800 service stations. As part of an asset optimization strategy, TotalErg ceased production at its Rome refinery in late 2012 and subsequently converted that site into a logistics hub for petroleum products storage.

To distribute its specialty products, the Group benefits from an extensive network in Europe and relies on numerous industrial facilities to produce lubricants (mainly Rouen in France and Ertvelde in Belgium), special fluids (Oudalle in France) and bitumen (Brunsbüttel in Germany).

In **Northern, Central and Eastern Europe**, TOTAL accelerated the growth of its positions in 2014 in the growing markets of Eastern Europe, especially for lubricants and specialty bitumen products.

In Europe, the Group is a major player in the market for fuel-payment cards, with nearly 3.3 million cards issued.

With the AS24 card, TOTAL has a dedicated offering for the heavy-duty vehicles segment in twenty-nine European countries. Bolstered by a network of more than 740 service stations, AS24 is expected to continue to grow primarily through expansion in the Mediterranean basin and Eastern Europe and through its toll payment card service, which covers nearly twenty countries.

**4.1.4. Africa and the Middle East**

TOTAL is the leading marketer of petroleum products on the African continent and select Middle Eastern countries, with a market share averaging 16%<sup>(3)</sup> in 2014. The Group's networks in these high-growth markets grew from 4,500 service stations in 2013 to 4,800 in 2014, spread over close to fifty countries. The Group operates major networks in South Africa, Turkey, Nigeria, Kenya, Egypt and Morocco.

In **Egypt**, TOTAL acquired the Shell and Chevron service station networks and wholesale business in 2013, allowing the Group to become in 2014 the second largest private operator in Africa's largest market, with a 14% network market share<sup>(4)</sup>.

In **Jordan**, TOTAL continued developing its service station network and wholesale business following its acquisition of a distribution license in 2012, enabling the Group to reach a market share of 33.8%<sup>(2)</sup> in 2014 (159 service stations).

In **Côte d'Ivoire, Senegal and Burkina Faso**, M&S acquired in 2014 the networks of independent oil and gas companies to increase its market share in these countries.

Finally, to strengthen its local presence, M&S began a process of opening up the share capital of select subsidiaries to regional investors, particularly in Morocco and Senegal.

TOTAL is pursuing a strategy for growth in specialty products markets in Africa and the Middle East. M&S, which relies in

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<sup>(1)</sup> Excluding AS24 network.

<sup>(2)</sup> Company data.

<sup>(3)</sup> Market share in the countries where the Group operates, based on 2013 publicly available information on quantities sold.

<sup>(4)</sup> PFC Energy 2013.

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### Item 4 - B.4. Marketing & Services Segment

particular on a lubricants blending plant in Dubai, started up new plants of this type in Egypt in 2012 and in Saudi Arabia in 2013.

Moreover, TOTAL has become a leading partner for mining customers in Africa by delivering supply chain and management solutions for fuels and lubricants.

Finally, TOTAL continued to develop its *Awango by Total* solar solutions, expanding this line to four new countries on the African continent in 2014 (for additional information, refer to C. Other Matters 7.3.4.7. Developing the *Awango by Total* offer , below).

#### **4.1.5. Asia-Pacific**

At year-end 2014, TOTAL was present in more than twenty countries in the Asia-Pacific region and continues to strengthen its position in the distribution of fuels and specialty products. TOTAL operates service station networks in China, Pakistan, the Philippines, Cambodia and Indonesia, and is a significant player in the Pacific islands. The Group's network continued to grow, reaching slightly more than 1,000 service stations at year-end 2014. Ground transportation lubricant sales in the area increased by 2.5% in 2014 compared with 2013.

In **China**, the Group was operating approximately 200 service stations at year-end 2014 through two joint ventures with Sinochem and a wholly-owned subsidiary. In October 2013, the Group opened its third lubricants blending plant in China. Located in Tianjin, this state-of-the-art plant has a capacity of 200 kt/y.

In **Pakistan**, TOTAL, with its local partner PARCO, is in the process of acquiring Chevron's distribution network. This acquisition should expand TOTAL's network by more than 500 service stations and strengthen the Group's distribution and logistics capacities in Pakistan.

In **Singapore**, one of the Group's largest lubricants blending plants, featuring a capacity of 310 kt/y, is currently under construction. Operations are scheduled to start in mid-2015.

In **India**, TOTAL continued to strengthen its positions in the lubricants and LPG sectors with the expansion of its LPG network to 48 stations. In 2012, TOTAL inaugurated its first lubricants, bitumen, special fluids and additives technical center outside of Europe.

In **Vietnam**, TOTAL continued to strengthen its presence in the specialty products market. The Group became one of the leaders in the Vietnamese LPG market with the acquisition of Vinagas in 2012.

#### **4.1.6. Americas**

In the **Americas**, TOTAL is active directly in more than twenty countries and indirectly (via distributors) in approximately twenty additional countries. TOTAL operates a large number of industrial units in these countries including, in particular, the production of lubricants and the storage and bottling of LPG. In addition, since 2012, the Group has opened new distribution subsidiaries in Colombia, Peru and the Dominican Republic, in 2012, 2013 and 2014, respectively.

In the **Caribbean**, the Group operates on several islands and has a significant position in the fuel distribution business with more than 400 service stations.

In **Latin America**, TOTAL continues to pursue its specialty products (primarily lubricants and special fluids) growth strategy.

In the **United States** and **Canada**, TOTAL mainly markets specialty products, particularly lubricants, jet fuels and special

fluids. To strengthen its special fluids business, the Group took on a project to build a special fluids production plant near Houston, Texas, which is expected to be operational in 2015.

#### **4.1.7. Product and services developments**

In 2014, TOTAL continued its technical partnerships in racing, in particular with Renault (Renault Sport F1) and PSA Citroën (WRC and WTCC). These partnerships demonstrate TOTAL's technical excellence in the formulation of fuels and lubricants under extreme conditions and requirements to reduce fuel consumption. At end-2014, TOTAL and Renault renewed their global partnership for the next five years, in the areas of R&D, business relations with Renault after-sales networks and Formula 1.

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In order to respond to developments in world markets and prepare tomorrow's growth opportunities, TOTAL develops energy solutions in collaboration with its consumer and professional customers that optimize their energy bills, such as the Total Écosolutions product and service label (refer to C. Other Matters 7.2.2.4. Sustainable use of resources, below). These solutions integrate a diversified range of energy sources (fuels, gas, photovoltaics and wood pellets, the sales capacities of which increased in Europe in 2014) as well as consumption auditing, monitoring and management services. In 2012, TOTAL launched the Tenag joint venture in Germany, in which the Group holds 49%, and in 2014 acquired BHC Energy in France, both devoted to energy efficiency.

TOTAL also supports the development of alternative fuels other than conventional fossil energies:

**Hydrogen:** Through its Clean Energy Partnership (CEP) in Germany, TOTAL participates in the development of a network of hydrogen stations with the goal of developing fifty hydrogen stations by year-end 2015. In addition, TOTAL and its partners in the *H2 Mobility Germany*<sup>(1)</sup> initiative signed an agreement to create a joint venture with the aim of constructing a network of approximately 400 hydrogen stations by 2023, subject to deployment of more than 250,000 fuel-cell electric vehicles.

**Electro-mobility:** TOTAL has approximately twenty prototype electric vehicle refueling stations in the Netherlands, Belgium and Germany. The development and demonstration of the distribution of electricity (fast charge) intended for electric vehicles continued in 2014 in TOTAL's European subsidiaries through industrial partnerships with Renault, Nissan, BMW, Volkswagen, EDF and Tesla.

**LNG:** TOTAL's European subsidiaries continued to monitor the potential of LNG as a fuel for heavy duty vehicles in 2014.

### 4.2. New Energies

New Energies is committed to developing renewable energies that will, in combination with hydrocarbons, help respond to the challenge of climate change by developing a diversified energy mix while also generating lower CO<sub>2</sub> emissions. To this end, TOTAL is focusing on two main themes of development: solar energy, which benefits from unlimited energy resources, particularly in certain geographical areas where the Group has a significant presence, and the conversion of biomass through biotechnology, which aims to develop new biosourced product solutions for transport and chemicals. In addition, the Group actively monitors other renewable energies it does not currently prioritize for development.

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<sup>(1)</sup> Daimler, Shell, OMV, Air Liquide and Linde.

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### **Item 4 - B.4. Marketing & Services Segment**

#### **4.2.1. Solar energy**

TOTAL is developing upstream operations through industrial production and downstream marketing activities in the photovoltaic sector based on crystalline silicon technology. The Group is furthermore pursuing R&D investments in this field through several industrial and academic partnerships.

Photovoltaic solar energy has come of age and its growth is accelerating. The steady reduction in photovoltaic electricity costs is increasing solar competitiveness in an ever-growing number of markets, in solar farms and residential and commercial applications.

##### **4.2.1.1. SunPower**

As of December 31, 2014, TOTAL held 59.77% of SunPower, an American company listed on NASDAQ and based in San Jose, California. SunPower is an integrated player that designs, manufactures and supplies cells as well as the highest-efficiency crystalline silicon-based solar panels in the market. SunPower is also active in the design and construction of large turnkey power plants and the marketing of integrated solar solutions for decentralized electricity generation.

Upstream, SunPower manufactures all of its cells in Asia (Philippines, Malaysia) and has a total production capacity of 1,300 MW/y. The company is constantly optimizing its production to reduce costs while maintaining its technological leadership through its significant R&D program. The cells are assembled into modules, or solar panels, in plants located in Asia, the United States, Mexico, Europe and South Africa. A 350 MW/y expansion in capacity was approved at the end of 2013 for a production start-up in 2015.

Downstream, SunPower markets its panels worldwide for applications ranging from residential and commercial roof tiles to large solar power plants.

In 2014, SunPower pursued the construction, in the United States, of the world's largest solar farm, Solar Star (709 MWp), and continued its international development, building solar power plants in Chile (70 MWp), in which TOTAL has a 20% stake, and South Africa (33 MWp). In South Africa, the construction of another 86 MWp solar farm will start in early 2015.

SunPower is pursuing its development in residential and commercial markets, in particular in the United States, by increasing its service offerings for solar power production, management and financing. Sunpower is also developing its Smart Energy activity to allow its residential customers to optimize their power consumption. In 2014, SunPower signed several agreements with companies developing solutions in this domain. The acquisition in 2014 of SolarBridge Technologies, Inc., a micro-inverter producer, will allow the conversion of direct current into alternating current at the panel level and monitoring of each panel's production, thus optimizing power production.

##### **4.2.1.2. Other solar assets**

In Abu Dhabi, the Shams 1 solar power plant (109 MW of parabolic concentrated solar power) was commissioned in September 2013 with production being sold to the Abu Dhabi Water Electricity Company (ADWEC). TOTAL (20%) is involved in its operation for a 25-year period.

TOTAL owns a 50% interest in the French company Sunzil, which markets photovoltaic panels in French overseas territories.

Elsewhere, the Group is continuing initiatives to install solar solutions as part of decentralized rural electrification projects in a number of countries, including in South Africa via Kwazulu Energy Services Company (KES), in which TOTAL holds a 35% stake (for more information, see C. Other Matters 7.3.4. Creating local value, below).

##### **4.2.1.3. New solar technologies**

In order to strengthen its technological leadership in the crystalline silicon value chain, and in addition to its cooperation with SunPower in the R&D field, New Energies partners with leading laboratories and research institutes in France and abroad. The aim of these partnerships is to develop and optimize the photovoltaic solar power chain (silicon, wafers, cells, modules and systems) by cutting production costs and multiplying its applications, while increasing the efficiency and reliability of the components, as well as developing downstream energy systems, products and services beyond solar power production. New Energies is also strengthening its expertise in solar resource evaluation and prediction.

In this regard, TOTAL is working with the Interuniversity MicroElectronics Center (IMEC) in Belgium and the École Polytechnique's Laboratory of physics of interfaces and thin layers (LPICM) in France, which specializes in low-temperature plasma deposition processes. Further to this partnership, TOTAL participates in the Institut Photovoltaïque d'Île-de-France (IPVF) project, which aims to eventually become one of the reference centers worldwide conducting research into latest-generation photovoltaic devices.



With respect to electricity storage, TOTAL is continuing its R&D program with renowned institutions such as the Massachusetts Institute of Technology (MIT) in the United States notably to develop new battery technologies, and is also investing in start-ups such as Ambri (12.3%), founded by MIT.

### **4.2.2. Biotechnologies and the conversion of biomass**

TOTAL is exploring a number of opportunities for developing biomass depending on its nature, accessibility and sustainability. The Group's objective is to sell high-performance molecules in targeted markets (fuel, lubricants, special polymers, chemicals, etc.). The focus of New Energies is on the biochemical conversion process for this biomass.

In 2010, Amyris Inc., an American company listed on NASDAQ, was TOTAL's first significant equity investment in biotechnology. At year-end 2014, TOTAL held 17.2% of the company. A collaboration agreement with Amyris was signed covering research, development, production and marketing of biosourced molecules. Amyris owns a cutting-edge industrial synthetic biology platform designed to improve and optimize microorganisms that can convert sugars into molecules of interest through fermentation. Amyris also owns a research laboratory and pilot units in California and Brazil. Amyris has successfully started and operates a plant in Brazil that converts 30 million liters of sugarcane juice into molecules of interest for perfumes and cosmetics as well as farnesene, a molecule of interest for a number of chemical or downstream oil markets, including specialty products and fuels (diesel or jet). In June 2014, the bio-sourced jet fuel produced by Amyris received the certification required to be sold to airlines (for blends of up to 10% in jet fuel derived from hydrocarbons), allowing its use in commercial flights in the second half of 2014, in partnership with Air France and KLM, as well as GOL between the

<sup>(1)</sup> *Fraunhofer study.*

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## Item 4 - B.5. Investments

United States and Brazil, thereby providing the technical demonstration of this new jet fuel source. Large-scale deployment will take several years, as a cost reduction program is necessary to make the molecule competitive with fossil jet fuel.

In addition, the Group continues to develop a global network of R&D partnerships in technology segments that are complementary to Amyris' platform (deconstruction of lignocellulose, synthetic biology, metabolism engineering), including with Joint BioEnergy Institute (JBEI, United States), Novogy (now wholly-owned, United States), the University of Wageningen (the Netherlands) and the Toulouse White Biotechnology consortium (TWB, France).

The Group is also studying the longer-term potential for developing a cost-effective phototrophic process for producing biomolecules through microalgae bioengineering and associated processes.

**4.2.3. Other renewable energies**

In the field of wind power, TOTAL owns a 12 MW wind farm in Mardyck near Dunkirk, France, which was commissioned in 2003.

In marine energy, TOTAL holds a 24.1% share in Scotrenewables Tidal Power, located in the Orkney Islands in Scotland. Following successful tests on a 250 kW prototype completed in 2013, a 2 MW commercial model is currently under construction.

**5. INVESTMENTS****5.1. Major investments over the 2012-2014 period<sup>(1)</sup>**

(M\$)	2014	2013	2012
Upstream	26,520	29,750	25,200
Refining & Chemicals	2,022	2,708	2,502
Marketing & Services	1,818	1,814	1,671
Corporate	149	159	102
<b>Total</b>	<b>30,509</b>	<b>34,431</b>	<b>29,475</b>

Organic investments, including net investments in equity affiliates and non-consolidated subsidiaries, amounted to \$26.4 billion in 2014 compared with \$28.3 billion in 2013, a 7% decrease. The Group's organic investments reached a high in 2013, as provided in the Group's roadmap, and the commitment made to reduce investments was fulfilled. Most of the major projects that will support the Group's production growth through 2017 were launched, with investments reducing as projects start up.

In 2014, most investments in the Upstream segment were geared toward the development of new hydrocarbon production facilities and exploration operations. Development expenditure mainly pertained to major projects that drive the Group's growth, such as GLNG and Ichthys in Australia, Surmont in Canada, the Ekofisk and Eldfisk areas in Norway, the Laggan-Tormore project in the United Kingdom, Moho North in the Republic of the Congo, CLOV in Angola, Ofon II and Egina in Nigeria and Yamal in Russia.

In the Refining & Chemicals segment, investments were made in facilities maintenance and safety, as well as in projects aimed at improving the plants competitiveness, particularly their energy efficiency. 2014 was marked by the startup of the new SATORP refinery in Saudi Arabia and the new petrochemicals plants in Daesan, South Korea. In addition, the investment project in Antwerp, Belgium and the adaptation project in Carling, France are currently underway. In the Marketing & Services segment, investments in 2014 mainly concerned the network, logistics and specialty products production and storage facilities.

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While mobilizing its teams for the startups in the Upstream segment over the next two years, the Group is preparing for the future beyond 2017 by expanding its acreage and acquiring stakes in new promising assets. Acquisitions were \$2.5 billion, comprised principally of the acquisition of an interest in the Elk and Antelope discoveries in Papua New Guinea, the acquisition of an additional stake in OAO Novatek<sup>(2)</sup> and the carry on the Utica gas and condensate field in the United States.

Gross investments (including acquisitions and changes in non-current loans) therefore fell by 12% to \$29.0 billion in 2014 compared with \$32.8 billion in 2013.

The Group also continued its asset sale program with the finalization of sales totaling \$4.65 billion in 2014, comprised essentially of the sale of interests in Shah Deniz and the associated pipelines in Azerbaijan, Block 15/06 in Angola, GTT (Gaztransport et Technigaz) and the Cardinal midstream assets in the United States. Asset sales were \$4.75 billion in 2013.

The 2012-14 asset sale target of \$15 to \$20 billion was met with the completion of \$17.5 billion in sales during the period. In addition, the sale of Bostik was completed in February 2015 and the pending sales of the coal mines in South Africa and Totalgaz are awaiting approval from the authorities.

Net investments were therefore \$24.1 billion in 2014, compared to \$25.9 billion in 2013, a decrease of 7%. This decrease was mainly due to the reduction in investments<sup>(1)</sup>, since asset sales varied by only 2% between 2013 and 2014.

### 5.2. Major planned investments

Taking into account the current economic environment, the organic investment budget has decreased by more than 10% from \$26.4 billion in 2014 to \$23-24 billion in 2015. In particular, the Group has reduced investments in brownfield developments that have become less profitable due to the decline in Brent. The decrease in investments is part of the Group's strong and immediate response to reduce its cash break-even point by \$40/b without compromising the priority to safety.

Investments in the Upstream segment are expected to amount to \$20 billion and will mainly be allocated to major development projects, including Ichthys in Australia, Surmont and Fort Hills in Canada, Moho North in the Republic of the Congo, Kaombo in Angola, Egina in Nigeria and Yamal in Russia. A significant portion of the segment's budget will also be allocated to maintenance and integrity work on assets already in production.

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<sup>(1)</sup> Including acquisitions. The main acquisitions in fiscal years 2012-2014 are detailed in Note 3 to the Consolidated Financial Statements.

<sup>(2)</sup> The Group held an 18.24% stake in OAO Novatek as of December 31, 2014.

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### **Item 4 - C. Other Matters**

The Refining & Chemicals segment has an investment budget of approximately \$1.5 billion in 2015, which is expected to be allocated to the refining, petrochemicals and specialty chemicals businesses. The modernization of the integrated platform in Antwerp, Belgium is the largest investment in the segment in 2015. A significant portion of the segment's budget will also be allocated to the maintenance and safety investments required for these types of industrial activities.

The Marketing & Services segment has an investment budget of approximately \$1.5 billion, which is expected to finance, in particular, the service station network, logistics, specialty products production and storage facilities (lubricants, LPG, etc.) and the development of its activities in New Energies. Most of the Marketing & Services budget will be allocated to growth areas (Africa, Middle East, Asia and Latin America).

After 2015, TOTAL expects investments to be in line with more moderate post-2017 growth from a larger production base. The Group monitors the evolution of the Brent price and will consequently adapt its investments without compromising its medium-term objectives.

TOTAL self-finances most of its investments from its excess cash from operations (refer to the Consolidated Statement of Cash Flows), which is mainly supplemented by accessing the bond market on a regular basis, when conditions on the financial markets are favorable (refer to Note 20 to the Consolidated

Financial Statements). However, investments for certain joint ventures between TOTAL and external partners are funded through specific project financing.

Active management of the asset portfolio, which is fully integrated into the Group's strategy, creates value and TOTAL has confirmed its 2015-17 asset sale program of \$10 billion. In addition, the Group makes targeted acquisitions. As the first international company to enter the new ADCO concession in Abu Dhabi, TOTAL demonstrated its ability to access resources under good conditions and create strong partnerships in a strategic region offering various development opportunities.

As part of certain project financing arrangements, TOTAL S.A. has provided guarantees. These guarantees ( Guarantees given on borrowings ) as well as other information on the Group's off-balance sheet commitments and contractual obligations appear in Note 23 to the Consolidated Financial Statements. The Group currently believes that neither these guarantees nor the other off-balance sheet commitments of TOTAL S.A. or of any other Group company have, or could reasonably have in the future, a material effect on the Group's financial position, income and expenses, liquidity, investments or financial resources.

The sale of TOTAL's stake in offshore Block OML 138 in Nigeria, including the Usan field, announced in November 2012 was not able to close. The Group is actively pursuing efforts to sell this asset.

## **C. OTHER MATTERS**

Various factors, including certain events or circumstances discussed below, have affected or may affect TOTAL's business and results.

### **1. Management and monitoring of industrial and environmental risks**

#### **1.1. TOTAL policies regarding health, safety and the environment**

TOTAL has developed a Safety Health Environment Quality Charter (refer to 7.2. Safety, health and environment information , below.) that sets out the basic principles applicable within the Group regarding the protection of people, property and the environment. This charter is implemented at several levels within the Group by means of its management systems.

Along these lines, TOTAL has developed safety, environmental and quality management systems that it seeks to have certified or assessed (*e.g.*, standards such as the International Safety Rating System, ISO 14001 and ISO 9001).

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In most countries, TOTAL's operations are subject to laws and regulations concerning health, safety and environmental protection to which TOTAL ensures compliance (see 3.3. Health, safety and environmental regulations, below).

### 1.2. Assessment

As part of its policy, TOTAL performs regular assessments, following various procedures, of risks and impacts in the areas of industrial safety (particularly process safety), the environment and the protection of workers and local residents, including:

prior to approving new projects, investments, acquisitions and disposals;

periodically during operations (safety studies, environmental impact assessments, health impact studies and Technological Risk Prevention Plan - PPRT in France);

prior to releasing new substances on the market (toxicological and ecotoxicological studies and life cycle analyses); and

based on the regulatory requirements of the countries where these activities are carried out and generally accepted professional practices.

In countries where prior administrative authorization and supervision is required, projects are not undertaken without the authorization of the relevant authorities based on the studies provided to the authorities.

In particular, TOTAL has developed a common methodology for analyzing technological risks that is being gradually applied to all activities carried out by the companies of the Group (refer to 7.2.2.3. Incident risk, below).

### 1.3. Management

TOTAL develops risk management measures based on risk and impact assessments. These measures involve facility and structure design, the reinforcement of safety devices and environmental remediation.

In addition to developing management systems as described above, TOTAL strives to minimize industrial and environmental risks inherent in its operations by conducting thorough inspections and audits, training personnel and raising awareness among all those involved.

In addition, performance indicators (particularly in the areas of HSE) and risk monitoring have been put in place, objectives have been set and action plans have been implemented to achieve these objectives.

Although the emphasis is on preventing risks, TOTAL takes regular steps to prepare for crisis management based on identified risk scenarios.

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The Group has a crisis management process that relies on a permanent on-call system, regular exercises conducted at the industrial sites of its main entities, a benchmark of the best practices of international companies and training courses in crisis management, as well as procedures, emergency booklets and tools that can be used in the event of a crisis.

The organization set up in the event of a crisis is deployed at two closely-coordinated levels:

at the local level (country, site or entities), a crisis unit is responsible for ensuring operational management and implementations of emergency plans; and at the head office level, a crisis unit consisting of a multi-disciplinary team is tasked with assessing the situation and overseeing crisis management. This central unit provides the necessary expertise and mobilizes additional resources to assist the local crisis unit when necessary.

In addition, TOTAL has developed emergency plans and procedures to respond to an oil spill or leak. These plans and procedures are specific to each TOTAL affiliate and adapted to its organization, activities and environment and are consistent with the Group's plan. They are reviewed regularly and tested through exercises (see 7.2.2.3. Incident risk, below).

At the Group level, TOTAL has set up an organization structured around the Plan to Mobilize Resources Against Pollution (PARAPOL) alert scheme to facilitate crisis management and

provide assistance without geographical restriction by mobilizing both internal and external resources in the event of pollution of marine, coastal or inland waters. The PARAPOL procedure is made available to entities of the Group and its main goal is to facilitate access to internal experts and physical response resources.

Furthermore, the Company and its subsidiaries are currently members of certain oil spill cooperatives that are able to provide expertise, resources and equipment in all geographic areas where the Group has operations, including, in particular, Oil Spill Response Limited and Centre for Documentation, Research and Experimentation on Accidental Water Pollution (CEDRE).

Following the blow-out on the Macondo well in the Gulf of Mexico in 2010 (in which the Group was not involved), TOTAL created three task forces in order to analyze risks and issue recommendations.

The task forces have now finalized their work and the Group continues to roll out solutions to minimize such risks. Detailed information on TOTAL's initiatives in the fields of safety and protection of the environment is provided in 7. Social and environmental information, below.

TOTAL believes that it is impossible to guarantee that the contingencies or liabilities related to the above mentioned concerns will not have a material impact on its business, assets and liabilities, consolidated financial situation, cash flow or income in the future.

## **2. Insurance and risk management**

### **2.1. Organization**

TOTAL has its own reinsurance company, Omnium Reinsurance Company (ORC). ORC is integrated within the Group's insurance management and is used as a centralized global operations tool for covering the Group companies' insurable risks. It allows the Group's worldwide insurance program to be implemented in compliance with the specific requirements of local regulations applicable in the countries where the Group operates.

Some countries may require the purchase of insurance from a local insurance company. If the local insurer accepts to cover the subsidiary of the Group in compliance with its worldwide insurance program, ORC negotiates a retrocession of the covered risks from the local insurer. As a result, ORC enters into reinsurance contracts with the subsidiaries' local insurance companies, which transfer most of the risk to ORC.

At the same time, ORC negotiates a reinsurance program at the Group level with oil industry mutual insurance companies and commercial reinsurance markets. ORC allows the Group to better manage price variations in the insurance market by taking on a greater or lesser amount of risk corresponding to the price trends in

the insurance market.

In 2014, the net amount of risk retained by ORC after reinsurance was a maximum of \$53 million per onshore third-party liability insurance claim, or \$77 million per offshore third-party liability insurance claim, on the one hand, and \$75 million per property damage and/or business interruption insurance claim, on the other hand.

Accordingly, in the event of any loss giving rise to an aggregate insurance claim, the effect on ORC would be limited to its maximum retention of \$152 million per occurrence.

## **2.2. Risk and insurance management policy**

In this context, the Group risk and insurance management policy is to work with the relevant internal department of each subsidiary to:

- define scenarios of major disaster risks (estimated maximum loss);
- assess the potential financial impact on the Group should a catastrophic event occur;
- help to implement measures to limit the probability that a catastrophic event occurs and the financial consequences if such event should occur; and
- manage the level of financial risk from such events to be either covered internally by the Group or transferred to the insurance market.

## **2.3. Insurance policy**

The Group has worldwide property insurance and third-party liability coverage for all its subsidiaries. These programs are contracted with first-class insurers (or reinsurers and oil and gas industry mutual insurance companies through ORC).

The amounts insured depend on the financial risks defined in the disaster scenarios and the coverage terms offered by the market (available capacities and price conditions).

More specifically for:

Third-party liability: since the maximum financial risk cannot be evaluated by a systematic approach, the amounts insured are based on market conditions and oil and gas industry practice. In 2014, the Group's third-party liability insurance for any liability (including potential accidental environmental liabilities) was capped at \$900 million (onshore) and \$800 million (offshore).

Property damage and business interruption: the amounts insured vary by sector and by site and are based on the

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### **Item 4 - C. Other Matters**

estimated cost and scenarios of reconstruction under maximum loss situations and on insurance market conditions. The Group subscribed for business interruption coverage in 2014 for its main refining and petrochemical sites. For example, for the Group's highest risks (North Sea platforms and main refineries and petrochemical plants), in 2014 the insurance limit for the Group share of the installations was approximately \$1.7 billion for the Refining & Chemicals segment and approximately \$2 billion for the Upstream segment.

Deductibles for property damage and third-party liability fluctuate between €0.1 and €10 million depending on the level of risk and liability, and are borne by the relevant subsidiaries. For business interruption, coverage is triggered sixty days after the occurrence giving rise to the interruption. In addition, the main refineries and

petrochemical plants bear a combined retention for property damage and business interruption of \$50 million per insurance claim.

Other insurance contracts are bought by the Group in addition to property damage and third-party liability coverage, mainly in connection with car fleets, credit insurance and employee benefits. These risks are mostly underwritten by outside insurance companies.

The above-described policy is given as an example of a situation as of a given date and cannot be considered as representative of future conditions. The Group's insurance policy may be changed at any time depending on the market conditions, specific circumstances and on the General Management's assessment of the risks incurred and the adequacy of their coverage.

### **3. Certain legal aspects of the Group's activities**

#### **3.1. Exploration and production legal considerations**

TOTAL's Upstream segment conducts activities in various countries that are subject to a broad range of regulations. These cover virtually all aspects of exploration and production operations, including leasehold rights, production rates, royalties, environmental protection, exports, taxes and foreign exchange rates.

Licenses, permits and contracts governing the Group's ownership of oil and gas interests have terms that vary from country to country and are generally granted by or entered into with a government entity or a state-owned company and are sometimes entered into with private owners. These arrangements usually take the form of concessions or production sharing contracts.

In the framework of oil concession agreements, the oil company owns the assets and the facilities and is entitled to the entire production. In exchange, the operating risks, costs and investments are the oil company's responsibility and it agrees to remit to the relevant host country, usually the owner of the subsoil resources, a production-based royalty, income tax, and possibly other taxes that may apply under local tax legislation.

The production sharing contract (PSC) involves a more complex legal framework than the concession agreement: it defines the terms and conditions of production sharing and sets the rules governing the cooperation between the company or consortium in possession of the license and the host country, which is generally represented by a state-owned company. The latter can thus be involved in operating decisions, cost accounting and production allocation.

The consortium agrees to undertake and finance all exploration, development and production activities at its own risk. In exchange, it is entitled to a portion of the production, known as cost oil, the sale of which is intended to cover its incurred expenses (capital and operating costs). The balance of production, known as profit oil, is then shared in varying proportions, between the company or consortium, on the one hand, and the host country or state-owned company, on the other hand.

In some instances, concession agreements and PSCs coexist, sometimes in the same country or even on the same block. Even though there are other contractual models, TOTAL's license portfolio is comprised mainly of concession agreements.

On most licenses, the partners and/or the authorities of the host country, often assisted by international accounting firms, perform joint venture and PSC cost audits and ensure the observance of contractual obligations.

In some countries, TOTAL has also signed contracts called risked service contracts, which are similar to PSCs. However, the profit oil is replaced by a defined cash monetary remuneration, agreed by contract, which depends notably on field performance parameters such as the amount of barrels produced.



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Oil and gas exploration and production activities are subject to authorization granted by public authorities (licenses), which are granted for specific and limited periods of time and include an obligation to relinquish a large portion, or the entire portion in case of failure, of the area covered by the license at the end of the exploration period.

TOTAL pays taxes on income generated from its oil and gas production and sales activities under its concessions, PSCs and risked service contracts, as provided for by local regulations. In addition, depending on the country, TOTAL's production and sales activities may be subject to a number of other taxes, fees and withholdings, including special petroleum taxes and fees. The taxes imposed on oil and gas production and sales activities is generally substantially higher than those imposed on other industrial or commercial businesses.

The legal framework of TOTAL's exploration and production activities, established through concessions, licenses, permits and contracts granted by or entered into with a government entity, a state-owned company or, sometimes, private owners, is subject to certain risks that, in certain cases, can reduce or challenge the protections offered by this legal framework. In addition to the uncertainties surrounding enforcement of contractual rights, new regulations requiring detailed disclosure of payments made by the Group's companies to public entities in connection with its mining operations (including hydrocarbons) may adversely impact the activities of the Group, its results or its reputation.

### **3.2. Competition law**

Competition laws apply to the Group's companies in the vast majority of countries in which it does business. Violations of competition laws carry fines and expose the Group and its employees to criminal sanctions and civil suits. Furthermore, it is now common for persons or corporations allegedly injured by violations of competition laws to sue for damages.

Some of the Group's business segments have already been implementing competition law conformity plans for a long time. In 2012, a Group policy for compliance with competition law and prevention of violations in this area was adopted. Its implementation is based on a dedicated organization, the involvement of hierarchies and staff, and an alert procedure.

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**3.3. Health, safety and environmental regulations**

TOTAL is subject to extensive and increasingly strict health, safety and environmental ( HSE ) regulations in the European Union ( EU ), the United States and the rest of the world.

**3.3.1. European Union**

The following is a non-exhaustive list of major HSE regulations and directives that affect TOTAL s operations and products in the EU:

*Risk prevention*

The Seveso III Directive (2012/18/EU), which entered into force in August 2012, updated and replaced the Major Hazards Directive Seveso II of 1996 that required emergency planning, public disclosure of emergency plans, assessment of hazards and emergency management systems. This Directive strengthened rules on the control of major accident hazards and integrated provisions on EU chemicals law (integration into the Seveso III Directive of the Classification, Labelling and Packaging (CLP) regulation and adapting the EU system to the UN s international chemicals classification Globally Harmonized System, or GHS). This Directive also clarified and updated other provisions, including introducing stricter inspection standards, improving the level and quality of information available to the public in the event of an accident, and public participation in decision-making and access to justice. EU Member States must transpose and implement this Directive by June 2015, which is also the date on which the new UN GHS becomes fully applicable in Europe.

The EU adopted the Safety of offshore oil and gas operations Directive on June 10, 2013. The new regulatory framework aims at reducing the occurrence of major accidents related to offshore oil and gas operations and to limit their consequences by establishing minimum conditions for safe offshore exploration and exploitation and improving the response mechanisms in the event of a major accident. This Directive sets clear rules that cover the whole lifecycle of all exploration and production activities from design to the final removal of an oil or gas installation. In addition, the Directive also provides rules for transparency and sharing of information, cooperation between EU Member States, emergency response plans and transboundary emergency preparedness and response. EU Member States must transpose and implement this Directive by July 2015.

The regulation REACH (Registration, Evaluation and Authorization and Restriction of Chemicals) came into force in June 2007 and required the pre-registration of chemical substances manufactured or imported into the EU by December 2008, to qualify for full registration under a phase-in during the period 2010-2018. This regulation requires the registration and identification of chemical substances manufactured or imported in EU Member States in a central database in the European Chemical Agency (ECHA) in Helsinki, and can result in restrictions on the sales or uses of such substances. REACH requires TOTAL to evaluate the hazards of its chemicals and products and may result in future changes to warning labels and material safety data sheets. To date, the Group has registered more than 220 substances.

*Protection of the natural environment*

The Industrial Emissions Directive (2010/75/EU) ( IED ) entered into force in January 2011 and replaced the Integrated Pollution Prevention and Control Directive (IPPC) and numerous sectorial directives as of January 2014, with the exception of the Large Combustion Plants (LCP) Directive of 2001, which will be repealed with effect from January 2016. The IED was required to be transposed by EU Member States into their national legislations by early January 2013. France transposed this Directive into its national legislation in May 2013.

By imposing the reduction of emissions from industrial installations, the IED will progressively result in stricter emission limits on certain facilities of TOTAL by making compulsory certain rules described in the Best Available Techniques (BAT) Reference Documents (BREFs). The BREFs and related BAT documents are published by the European Commission ( EC ) after exchanges of information between experts from the EU Member States, industry and environmental organizations to determine BATs. This exchange is coordinated by the European IPPC Bureau of the Institute for Prospective Technology Studies at the European Joint Research Centre in Seville, Spain.

Among other things, the Air Quality Framework Directive (2008/50/EC) ( AQFD ) and related directives on ambient air quality assessment and management limit emissions of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, carbon monoxide, benzene and ozone. The EC adopted in December 2013 a Clean Air Package including a Clean Air Programme for Europe with measures to ensure that existing targets of the AQFD are met in the short term and to introduce new air quality objectives for the period up to 2030, a revised National Emission Ceilings Directive with stricter national emission ceilings for the six main pollutants and a proposal for a new directive to reduce pollution from medium-sized combustion installations.

Certain maritime safety directives implemented in France between 2011 and 2012 require tankers to have double hulls and ship owners to acquire improved insurance coverage, mandate improvements to traffic monitoring, accident investigations and in-port vessel inspection, and further regulate organizations that inspect and confirm conformity to applicable regulations.

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Numerous EU directives impose water quality standards based on the various uses of inland and coastal waters, including ground water, by setting limits on the discharges of many dangerous substances and by imposing information gathering and reporting requirements. Adopted and effective since 2000, a comprehensive Water Framework Directive (2000/60/EC) is progressively replacing numerous existing directives with a comprehensive set of requirements, including additional regulations obligating EU Member States to classify all water courses according to their biological, chemical and ecological quality, and to completely ban the discharges of approximately thirty toxic substances by 2017.

Concerning the exploitation of shale gas, the EC launched in 2013 the initiative for the Environmental, Climate and Energy Assessment Framework to Enable a Safe and Secure Unconventional Hydrocarbon Extraction . This initiative, which is subject to an impact assessment, is intended to provide a framework to manage risks, address regulatory shortcomings and provide maximum legal clarity and predictability concerning the exploration and operation of shale gas to both market operators and citizens across the EU. In January 2014, the EC adopted a (non-binding) Recommendation setting minimum core principles for the exploration and production of hydrocarbons using high-volume hydraulic fracturing, which EU Member States were invited to apply

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within six months. In October 2014, EU Member States were invited to inform the EU Commission by the end of 2014 of measures adopted in response to the Recommendation.

See B. Business Overview 2.1.7.6. Europe France for an overview of TOTAL's Mont elimar exclusive exploration license and related government revocation.

The EU framework Directive on Waste Disposal, which entered into force in December 2008, ensures that waste is recovered or disposed of without endangering human health and without using processes or methods that could unduly harm the environment. Numerous related EU directives regulate specific categories of waste. In July 2014, the EU Commission published *Towards a circular economy: a zero waste programme for Europe*. The circular economy refers to re-using, repairing, refurbishing and recycling existing materials and products. The EU Commission also adopted in July 2014 a legislative proposal to review recycling and other waste related targets in the EU.

Biodiversity issues are being given increasing regulatory consideration. Following the 2010 Nagoya summit, the UN's 65th General Assembly decided to form the Intergovernmental Science-Policy Platform on Biodiversity (IPBES) in order to share knowledge and future policies on biodiversity and ecosystem services. In April 2014, the EU adopted a regulation on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization in the Union. The implementing regulation is currently being elaborated and is expected to enter into force in the second half of 2015. It is expected to address registered collection and best practices as well as the monitoring of user compliance. The EU is committed to the protection of biodiversity and to halting biodiversity loss within the EU by 2020. The EU has identified a need for action to promote a wider no-net-loss approach to biodiversity and ecosystems in order to achieve the overall 2020 objective of the EU Biodiversity Strategy. As a result, the EU Commission is expected to develop in 2015 an impact assessment on the policy options for a *No Net Loss* initiative.

#### *Climate protection*

With respect to the Kyoto protocol, which expired in 2012, the 2011 UN Climate Conference in Durban extended the Kyoto principles beyond 2012 in order to permit negotiations for the possible adoption by 2015 of a new legally-binding international agreement. The latest UN Climate Conference, held in Lima in December 2014, was an important precursor to a possible adoption of a global climate agreement in Paris in 2015. The Lima conference agreed on two deliverables: the Lima Call for Climate Action (*Lima Call*) focusing on the nature of the intended national determined commitments and its annex, the elements text, with these two documents constituting the basis for the 2015 agreement. The Lima Call requires countries to describe their proposed emissions reduction targets in a clear, transparent and understandable way. In order to assess these proposals, the UNFCCC secretariat will publish the national contributions and prepare a report prior to the 2015 meeting in Paris.

The *Climate Action and Renewable Energy Package* imposes an EU objective referred to as *3 x 20*, which commits EU Member States by 2020 to reduce overall GHG emissions to at least 20% below 1990 levels, to improve energy efficiency by 20% and to increase renewable energy usage by 20% compared to the projections for 2020.

In 2011, the EC published a *Roadmap for moving to a competitive low-carbon economy in 2050* to look beyond these 2020 objectives and to set out a plan to meet the long-term target of reducing domestic emissions by 80% to 95% by mid-century. In 2013, the EC published a Green Paper entitled *A 2030 Framework for Climate and Energy Policies* to propose to review European climate objectives for 2030. In January 2014, the EC proposed a new EU framework on climate and energy for 2030. EU leaders agreed on October 23, 2014 the domestic 2030 greenhouse gas reduction target of at least 40% compared to 1990 and on a target of at least 27% for renewable energy and energy savings by 2030.

To achieve the defined targets, the ETS Directive will be reformed and strengthened: a 43% greenhouse gas reduction target in 2030 in the ETS translates into the cap declining by 2.2% annually from 2021, compared to the rate of 1.74% up to 2020.

The sectors most responsible for emissions in the EU (*i.e.*, power generation, industry, transport, buildings and construction, as well as agriculture) are charged with making the transition to a low-carbon economy over the coming decades, and these issues could affect TOTAL's operations in the future.

The 2009 Directive on Carbon Capture and Storage (CCS) (2009/31/EC) (*CCS Directive*) forms the basis for developing CCS projects that are expected to help provide solutions for the reduction of CO<sub>2</sub> emissions. The EC issued four guidance documents in 2011 to support coherent implementation of the CCS Directive with respect to the geological storage of CO<sub>2</sub> across EU Member States. The Directive requires the EU Commission to review the application of the Directive and to submit an implementation report to the EU Parliament and Council by March 31, 2015.

The 2009 Fuel Quality Directive (2009/30/EC) (*Fuel Quality Directive*), which applies to all petrol, diesel and biofuels used in road transport as well as to gasoil used in non-road-mobile machinery, requires by 2020 a reduction by 6% of the greenhouse gas levels of fuels used in vehicles, and regulates the sustainability of biofuels. According to this Directive, the EU Commission may adopt implementing measures concerning mechanisms to monitor and reduce greenhouse gas emissions. The EU Commission proposed in October 2014 a draft Directive concerning such calculation methods and related reporting requirements regarding the quality of petrol and diesel fuels. This proposal could be adopted during the first half of 2015.

#### *CO<sub>2</sub> emission allowances*

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The regulations concerning the market for CO<sub>2</sub> emission allowances in Europe, the European Union Emissions Trading System (EU-ETS), entered a third phase on January 1, 2013. This phase marks the end of the overall free allocation of emission allowances: certain emissions, such as those related to electricity production, no longer benefit from free allowances, while for others, free allowances have been significantly reduced. Free allocations are now established based on the emission level of the top-performing plants within the same sector ( top 10 benchmark ) and lower-performing plants must purchase, at market price, the necessary allowances to cover their emissions over and

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above these free allocations. Moreover, the Group's plants will need to indirectly bear the cost of allowances for all electricity consumed (including electricity generated internally at its own facilities).

Given these new rules and the European Commission's decision to apply a cross-sectoral correction factor (CSCF) that reduces the total amount of free allocations for all sectors combined by an average of 11.6% over phase 3 (2013-2020), the Group estimates that approximately 30% of its emissions subject to the EU-ETS will not be covered by free allowances during the 2013-2020 period.

The revision in 2014 to the list of sectors exposed to carbon leakage confirmed that the refining sector in Europe is an exposed sector and, as such, it may continue to benefit from free allowances. However, performance for 2013 showed that this sector, which produces significant amounts of CO<sub>2</sub>, is almost the only sector with a free allowance deficit exceeding 20%. This deficit resulted mainly from effects of an ambitious sectoral benchmark and the CSCF, which is expected to become more severe year by year, thereby increasing the refining sector's deficit to more than 30% by 2020.

The Group has taken legal actions in relevant local courts having jurisdiction for its concerned industrial sites to contest national decisions granting free allowances. In addition, the courts of different Member States brought the matter before the Court of Justice of the European Union for a preliminary ruling on the procedures for determining the free allowances.

The financial risk related to the foreseeable purchase of these allowances on the market should remain low for the Group if prices for emission allowances remain close to their current level (€7/t CO<sub>2</sub>). Nevertheless, due to important regulatory changes that occurred in phase 3, such as the authorization given to the European Commission to intervene at its own discretion in the allowance auction calendar (backloading), or due to possible future regulatory changes, such as the establishment of a market reserve, prices for CO<sub>2</sub> allowances could increase substantially, which could cause a significant adverse impact on the results of the Group's refining operations.

*Environmental liability*

The Directive on Environmental Liability (2004/35/EC) (ELD) seeks to implement a strict liability approach for damage to water resources, soils and protected species and habitats by authorized industrial activities. The ELD, which came into force in 2004, has since been amended several times in order to broaden the scope of strict liability by adding the management of extractive waste and the operation of storage sites pursuant to Directive 2009/31/EC to the list of dangerous occupational activities in Annex III of the ELD, and to extend the scope of damage to marine waters.

EU Member States reported to the EC in 2013 their experiences concerning the application of the amended ELD. Based on these reports, the EC was supposed to have submitted a report reviewing the amended ELD to the European Parliament and to the European Council by April 2014. However, due to delays in reporting and evaluation and changes at the EU political level (*i.e.*, a new European Parliament and new Commission), the report has not yet been completed.

Directive 2008/99/EC, which concerns the protection of the environment through criminal law, obliges EU Member States to provide for criminal penalties in respect of serious infringements of EC regulations. In France, such obligation was transposed in July 2013.

*Public information*

EU directives implementing the Aarhus International Convention of 1998 were adopted in 2003 and provide public information and participation rights in a variety of activities affecting the environment. French regulations on public inquiry and impact assessment were adopted in 2011 and entered into force in June 2012. These regulations reinforce public participation and information rights concerning projects that could affect the environment. In December 2012, September 2013 and December 2013, French regulations were published on public participation modalities in public decision-making processes on projects affecting the environment.

The Directive on Environmental Impact Assessment (EIA) (2014/52/EU) amending EIA Directive 2011/92/EU came into force in May 2014. The amended Directive simplified the rules for assessing the potential effects of projects on the environment and strengthened the provisions on the quality of EIAs.

**3.3.2. United States**

In the United States, where TOTAL's operations are less extensive than in Europe, TOTAL is also subject to significant HSE regulations at both the state and federal levels. Of particular relevance to TOTAL's lines of business are:

*Protection of the natural environment*

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The Clean Air Act and its regulations, which require, among other measures: stricter phased-in fuel specifications and sulfur reductions; enhanced emissions controls and monitoring at major sources of volatile organic compounds, nitrogen oxides, and other designated hazardous and non-hazardous air pollutants; GHG regulation; stringent pollutant emission limits; construction and operating permits for major air emission sources at chemical plants, refineries, marine and distribution terminals and other facilities; and risk management plans for the handling and storage of hazardous substances.

The Clean Water Act, which regulates the discharge of wastewater and other pollutants from both onshore and offshore operations and, among other measures, requires industrial facilities to obtain permits for most wastewater and surface water discharges, install control equipment and treatment systems, implement operational controls, and preventative measures, including spill prevention and control plans and practices to control storm water runoff.

The Resource Conservation and Recovery Act, which regulates the generation, storage, handling, treatment, transportation and disposal of hazardous waste and imposes corrective action requirements on regulated facilities requiring investigation and remediation of potentially contaminated areas at these facilities.

### *Environmental liability*

The Comprehensive Environmental Response, Compensation, and Liability Act (also known as CERCLA or Superfund), under which waste generators, former and current site owners and operators, and certain other parties can be held jointly and severally liable for the entire cost of remediating sites contaminated by releases of hazardous substances regardless of fault or the amount or share of hazardous substances sent by a party to a site. The

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U.S. Environmental Protection Agency (EPA) has authority under Superfund to order responsible parties to clean up contaminated sites and may seek recovery of the government's response costs from responsible parties. States have similar legal authority to compel site investigations and cleanups and to recover costs from responsible parties. The U.S. government and states may also sue responsible parties under CERCLA for damage to natural resources (e.g., rivers and wetlands) arising from releases of hazardous substances.

*Risk prevention*

National and international maritime oil spill laws, regulations and conventions, including the Oil Pollution Act of 1990 (OPA 90) and certain coastal state laws impose significant operational, compliance and liability regimes. OPA 90 imposes significant oil spill prevention requirements, spill response planning and training obligations, ship design requirements (including phased in double hull requirements for tankers), operational restrictions, spill liability for tankers and barges transporting oil, offshore oil platform facilities and onshore terminals and establishes an oil liability spill fund paid for by taxes on imported and domestic oil.

Offshore oil and gas operations are regulated by the Bureau of Ocean Energy Management, which is responsible for managing development of offshore resources, and the Bureau of Safety and Environmental Enforcement (BSEE), which is responsible for safety and environmental oversight of offshore oil and gas operations. The BSEE has implemented more stringent permitting requirements and oversight of offshore drilling. Among other changes, well design, casing and cementing standards have been upgraded and compliance must be certified by a professional engineer. In addition, plans must describe containment resources available in case of an underwater blowout and worst case discharge, and operators in the Gulf of Mexico are required to develop and implement a Safety and Environmental Management Systems program.

Other significant U.S. environmental legislation includes the Toxic Substances Control Act, which regulates the development, testing, import, export and introduction of new chemical products into commerce, and the Emergency Planning and Community Right-to-Know Act, which requires emergency planning and spill notification as well as public disclosure of chemical usage and emissions. The Hazardous Materials Transportation Act (HMTA) regulates material designations, packaging requirements, and operation rules and procedures for the transport of hazardous materials within the United States. TOTAL's facilities in the United States are also subject to extensive workplace safety regulations promulgated by the Occupational Safety and Health Administration (OSHA). Most notable among OSHA regulations is the Process Safety Management of Highly Hazardous Chemicals standard, a comprehensive regulatory program that requires major industrial sources, including petroleum refineries and chemical manufacturing facilities, to undertake significant hazard assessments during the design of new industrial processes and modifications to existing processes, as well as a comprehensive and continual monitoring and management process for these chemicals.

*Climate protection*

EPA regulation of greenhouse gas (GHG) emissions from industrial sources under the Clean Air Act's Prevention of Significant Deterioration and Title V operating permit programs formally commenced in January 2011. The Group's U.S. subsidiaries may be required to obtain GHG permits to construct new facilities or to modify existing facilities. As a result, TOTAL's U.S. subsidiaries could incur additional capital and operating costs to comply with control technology and/or facility upgrade requirements to reduce GHG emissions.

*Proposed revised ozone standard*

In December 2014, the EPA proposed to revise the ozone national ambient air quality standard from the current 0.075 parts per million (ppm) to a level within the range of 0.065 - 0.070 ppm. If revised to that level, the ozone standard could result in higher emissions offset requirements for facility expansions and modifications, and stricter controls on emissions of nitrogen oxides and volatile organic compounds. As a result, the Group's U.S. refining and chemical facilities located in areas designated as not attaining the revised ozone standard could incur additional capital and operating costs. The EPA's final decision on revising the standard is expected by October 1, 2015.

*Proposed refinery sector regulations*

In June 2014, the EPA proposed changes to existing Clean Air Act regulations affecting the petroleum refinery sector. Included in the proposed rules are requirements for fenceline monitoring and stricter control measures to reduce emissions of hazardous air pollutants from processing units, flares and storage tanks. As a result, the Group's U.S. petroleum refinery is expected to require capital upgrades and incur additional operating costs to comply with new requirements. Promulgation of the final rule is expected in June 2015.

*Unconventional gas production*



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TOTAL has investments in unconventional gas plays in the states of Texas and Ohio that utilize hydraulic fracturing, or fracking, a process that involves pumping water, sand and chemicals underground at high pressure to fracture rock formations and release natural gas and liquids that are otherwise inaccessible. Currently, regulation of these practices occurs at the state level, although there are a number of federal agency proposals that could alter this framework, including proposed regulations governing operations on federal lands. Various state initiatives could also result in stricter control of fracking, impacting TOTAL's operating costs, profitability and future investments in these unconventional gas plays. Additionally, the EPA is phasing in rules governing the emission of volatile organic compounds (VOCs) from oil and natural gas production and processing operations that may have a similar impact. On January 14, 2015, the Obama administration announced a new initiative to cut methane emissions from the oil and gas sector by 40-45 percent from 2012 levels by 2025. Future EPA rulemaking to implement this initiative can be expected to impact TOTAL's unconventional gas production and other oil and gas operations.

### *Legal proceedings*

Proceedings instituted by governmental authorities are pending or known to be contemplated against certain U.S.-based subsidiaries of TOTAL under applicable environmental laws that could result in monetary sanctions in excess of \$100,000. No individual proceeding is, nor are the proceedings as a whole, expected to have a material adverse effect on TOTAL's consolidated financial position or profitability.

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**4. Research & Development**

Certain R&D initiatives of the Group are set forth below. For additional information on the Group's R&D, see Item 5 - G. Research and Development.

**4.1. Upstream segment**

In Exploration & Production, in addition to continuously optimizing the development of deep offshore projects and gas resources, TOTAL continues to improve its exploration, seismic acquisition and imagery technologies over the long term as well as those for the initial appraisal of hydrocarbon reservoirs and simulation of field evolution during operations, especially for tight, very deep or carbonate reservoirs.

A new direction is being taken to carry out deep offshore operations in even deeper waters, on the one hand, and at greater distances for multiphase production transport, on the other hand, which is fully in line with the ambitious goals of Exploration & Production and supports major technology-intensive assets such as Libra in Brazil.

Enhancing oil recovery from mature reservoirs and recovery of heavy oil and bitumen with lower environmental impacts are also subjects involving active research.

R&D activity has been intensified in the field of unconventional resources, with a strong focus on water management throughout the production cycle and the search for alternatives to hydraulic fracking. In addition, new technologies for the exploitation of oil shales by pyrolysis are being developed, both *in situ* and *ex situ*.

The CO<sub>2</sub> oxycombustion capture and storage project in the depleted Rouse reservoir in Lacq (France) is now in the monitoring phase following the injection phase, which ended in April 2013. The Group now has a strong command of the methods used to characterize reservoirs for this type of injection. New projects will look into new capturing solutions.

Finally, R&D continues to devote considerable efforts to technologies for water management associated to the production of hydrocarbons. This subject is now part of a larger program dedicated to sustainable development.

In Gas & Power, the program to develop new LNG (Liquefied Natural Gas) solutions is ongoing.

**4.2. Refining & Chemicals segment****4.2.1. Refining & Chemicals (excluding Specialty Chemicals)**

The aim of R&D is to support the medium and long-term development of Refining & Chemicals. In doing so, it contributes to the technological differentiation of this business through the development, implementation and promotion of effective R&D programs that pave the way for the industrialization of knowledge, processes and technologies.

In line with Refining & Chemicals' strategy, R&D places special emphasis on the following four major challenges: take advantage of different types of feedstock, optimize the value of assets, continue to develop innovative products, and develop bio-sourced products. The medium-term strategy of the project portfolio and its deployment plan will facilitate Refining & Chemicals' technological differentiation.

To take advantage of different types of feedstock, R&D activities related to the processing of more diversified crudes have increased significantly through a better understanding of the effect

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that feedstocks have on equipment and processes at the molecular level. R&D is launching ambitious new programs to develop various technologies for producing liquid fuels, monomers and intermediates from gas.

R&D is developing know-how and technologies with a view to optimizing the value of assets. Its efforts mainly involve programs focusing on the flexibility and availability of facilities. Advanced modeling of feedstocks and processes helps the units overcome their processing-related constraints and operate in real time with these constraints in mind. Research conducted on catalysts is helping to increase their resistance to poisons, improve catalytic stability and extend cycle time at a lower cost. Programs are being set up to maximize the value of heavy residues.

In response to concerns related to social and environmental acceptability, R&D focuses its efforts on reducing emissions, with the aim of ensuring that the facilities' environmental impact is limited. In anticipation of problems that arise over the long term and the value of CO<sub>2</sub>, R&D is developing technologies to reduce greenhouse gas emissions through carbon capture and recovery by conversion.

Product innovation is a key aspect of research on polymers. R&D draws on its knowledge of metallocenes and bimodality to develop different types of mass consumption polymers which have exceptional properties that allow them to replace heavier materials and compete with technical polymers. Value-added niche polymers are also being developed, whether in the form of blends, compounds or composites. Efforts to diversify into green products are focused mainly on bioproducts endorsed by the market: biomonomers, biointermediates and biopolymers. R&D is banking on polylactic acid for the market launch of new polymers that boast improved properties. In addition, the development of blends, compounds and composites broadens the scope of application of polylactic acid-based polymers.

With regard to biofuels, R&D has focused its efforts on gasification and coprocessing to produce liquid fuels from biomass. R&D is also particularly mindful of issues related to blends and product quality raised by the use of biomolecules.

The efficient use of resources and the management of plastics at the end of their useful life are topics of growing interest. R&D is therefore developing technologies that enable plastics to be used more efficiently as feedstock.

### *4.2.2. Specialty Chemicals*

R&D has strategic importance for Specialty Chemicals. It is closely linked to the needs of subsidiaries and industrial customers.

Material innovation at Hutchinson is opening up new growth opportunities: development of advanced rubber or thermoplastic formulas, development of new material formulations based on composite structures, or thermal applications.

In addition, growth and R&D focus on topics such as weight reduction, more electric vehicles, mechatronics and energy efficiency. Hutchinson set up two new platforms in 2014 within its research center: CTeC dedicated to composite structures, and MHuST dedicated to embedded mechatronic developments.

Atotech is one of the world leaders in integrated production systems (chemicals, equipment, know-how and service) for industrial surface finishing and the manufacturing of integrated circuits. Given the environmental challenges related to electroplating, nearly half of Atotech's R&D projects are intended

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to develop cleaner technologies and create conditions for the sustainable development of these industries.

#### **4.3. Marketing & Services segment**

##### **4.3.1. Marketing & Services**

In 2014, Marketing & Services R&D fine-tuned its roadmap in line with its ambitions and revised its internal organization.

Two major thematic platforms were identified: reducing the environmental footprint of products and improving the durability of its end users' equipment. They include the following development work: fuel economy for customers (fuels, lubricants, additives), competitiveness and new offers (lubricants, bitumens, special fluids), anticipation of regulatory developments (marine lubricants, aviation lubricants), and incorporation of bio-sourced molecules (lubricants, racing fuels).

Fundamental research provides the ideas necessary for designing and developing breakthrough products, which are one of the objectives that Marketing & Services has set for R&D. International secondments were put in place for the first time to incorporate the best scientific expertise into Marketing & Services know-how.

The number of international scientific cooperations grew sharply in 2014, and several researchers of foreign nationalities were recruited for the Solaize Research Center.

The Technical Center of Asia-Pacific, based in India, yielded results for the first time in 2014, mainly for lubricants, but also for special fluids, bitumens, fuel additives and fuels themselves. It is also the global competence center for textile lubricants and two-wheeled vehicles.

In 2014, the development of a new *Excellium* fuel formulas was completed and the benefits for customers were demonstrated. These developments focused on engine cleanliness and incorporate a new detergent technology developed internally. UTAC-CERAM Group's assessment of the *Excellium* formula on trucks, in compliance with the Energy Economy Certificate (CEE) protocol, showed a 4% consumption savings.

The results produced by *Excellium* development work also served as basis for the new *Total Traction Premier* formulation developed for Total France.

In the field of Refining specification additives, new block copolymers were synthesized to improve the cold flow properties of distillates at low temperatures.

The *Fuel Economy* range of lubricants continues to expand with many new products added to comply with the specifications of manufacturers targeted by the Total Lubricants business line in all fields of application (automotive, marine and industries). New marine lubricants for two-stroke engines are being developed to anticipate changes in fuel (very low sulfur in coastal areas) and emissions requirements. Research in lubricants also seeks to drive international development and the growth of the volume of lubricants sold. The number of manufacturers whose engines are being installed on the research center's engine test benches for the assessment of their lubricants is growing constantly with a peak for German manufacturers in 2014.

To meet the challenges of competitiveness, sustainable logistics and geographic development, researchers focused on optimizing bitumen formulas for roads, undertaking studies on the possibility of transporting bitumen in solid form and developing Styrelf formulas in Russia. Work on the formulation and industrialization of a specialty bitumen for industrial application was pursued successfully.

The Federal Aviation Administration (FAA) has selected the proposed unleaded Avgas, which will be assessed comparatively with three other competing proposals.

With a better understanding of the fluid catalytic production process and its applications, new patent applications were filed.

Lastly, thanks to their know-how and responsiveness, the researchers achieved success in racing fuels by developing products suitable for the new Renault V6 Formula 1 engine, particularly fuels containing biohydrocarbons which were instrumental in the victories at the Canadian, Belgian and Hungarian Grands Prix.

##### **4.3.2. New Energies**

New Energies R&D effort is focused on the solar value chain from silicon to photovoltaic electricity management systems and on the development of biotechnological methods of converting biomass into products for the Group's markets.

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In the field of solar energy, R&D is striving to improve SunPower's methods of producing cells and modules, in order to reduce costs while enhancing their efficiency and reliability. It is also preparing future generation photovoltaic cells within the framework of several strategic partnerships between TOTAL and renowned academic research institutes. In particular, TOTAL is the founding partner of the Ile de France Photovoltaic Institute, an ambitious project set up in the Paris-Saclay campus.

Downstream in the solar value chain, R&D is monitoring the development of low-cost stationary storage technologies. It is also preparing solutions for supplying solar power and associated services to residential markets, by developing software tools and algorithms for the intelligent management of domestic electricity production and consumption, but also by integrating and testing systems combining photovoltaics, storage, control of demand as well as pilots for assessing and improving systems and algorithms in contact with customers.

With regard to biotechnologies, the Group is developing methods for converting sugars into biofuels and molecules of interest for chemicals, as well as processes for the deconstruction of lignocellulose into sugars. The Group has set up its own laboratories, including a competence center on fermentation and a joint laboratory with Marketing & Services devoted to bio-sourced specialties, and a dedicated research team. This research team manages a network of partnerships with research laboratories and startups in the United States and in Europe. The Group's leading partner is Amyris, a U.S. company listed on NASDAQ, in which the Group held a 17.23% stake as of December 31, 2014.

#### **4.4. Environment**

Environmental issues are important throughout the Group and are taken into account in all R&D projects. R&D's effort is to ensure optimum management of environmental risk, particularly with regard to:

- water management, notably by reducing the use of water from natural continental environments and by lowering emissions in compliance with local, national and international regulations;
- reduction of greenhouse gas emissions by improving energy efficiency and the monitoring of carbon capture and storage and the potential effects of CO<sub>2</sub> on the natural environment;
- detection and reduction of discharges into the air and simulation of their dissemination;
- prevention of soil contamination and regulatory compliance with regard to historical aspects and the remediation of sites;

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changes in the Group's different products and management of their life cycle, in particular in compliance with the Registration, Evaluation, Authorisation and Restriction of Chemicals Directive (REACH).  
For more details, refer to 7.2. Safety, health and environment information, below.

**5. Competition**

TOTAL's main competitors are comprised of national oil companies and international oil companies. The evolution of the energy sector has opened the door to new competitors, increased market price volatility and called the viability of long-term contracts into question.

TOTAL is subject to competition in the acquisition of assets and licenses for the exploration and production of oil and natural gas as well as for the sale of manufactured products based on crude and refined oil. In the gas sector, major producers increasingly compete in the downstream value chain with established distribution companies, including those that belong to the Group. Increased competitive pressure could have a significant negative effect on the prices, margins and market shares of the Group's companies.

The pursuit of unconventional gas development, particularly in the United States, has contributed to falling market prices and a marked difference between spot and long-term contract prices. The competitiveness of long-term contracts indexed to oil prices could be affected if this discrepancy persists and if it should prove difficult to invoke price revision clauses.

The major international oil companies in competition with TOTAL include ExxonMobil, Royal Dutch Shell, Chevron and BP. As of December 31, 2014, TOTAL ranked fourth among these companies in terms of market capitalization.<sup>(1)</sup>

**6. Significant changes in the Group's interests in listed companies in 2012, 2013 and 2014****6.1. TOTAL's interest in OAO Novatek**

In March 2011, TOTAL signed an agreement in principle to acquire a 12.09% capital interest in OAO Novatek (hereinafter Novatek), a Russian company listed on the Moscow Interbank Currency Exchange and the London Stock Exchange, with both parties intending for TOTAL to increase its stake to 15% within 12 months and to 19.40% within 36 months.

TOTAL acquired its 12.09% capital interest in Novatek in April 2011 by purchasing shares from Novatek's two major shareholders. Further to this transaction, TOTAL is now represented on the Novatek Board of Directors.

TOTAL raised its stake to 14.09% in December 2011, by acquiring an additional 2% capital interest in Novatek from its two major shareholders, in the framework of the agreement concluded in March 2011.

In 2012, 2013 and 2014, TOTAL proceeded to the acquisition of shares in Novatek on a gradual basis.

As of December 31, 2014, TOTAL held, through its subsidiary Total E&P Holdings Russia, 553,878,690 shares out of a total of 3,036,306,000 outstanding shares, representing 18.24% of Novatek's share capital and voting rights.

**6.2. TOTAL's interest in SunPower**

In April 2011, SunPower, an American company listed on the NASDAQ, and TOTAL signed a strategic agreement for the acquisition by TOTAL, through a friendly takeover bid, of 60% of SunPower's outstanding shares for a price of \$23.25 per share, totaling around \$1.4 billion. The friendly takeover bid was

concluded successfully in June 2011.

TOTAL also signed in 2011 a five-year financial guarantee agreement with SunPower for a maximum amount of \$1 billion, as well as a liquidity support agreement for a maximum amount of \$600 million that expired on March 11, 2014.

In January 2012, TOTAL's interest in SunPower increased to 66% as the result of a capital increase coinciding with the Tenesol transaction.

As of December 31, 2014, TOTAL held, through its subsidiary Total Energies Nouvelle Activités USA S.A.S, 78,576,682 shares out of a total of 131,466,777 outstanding shares, representing 59,77% of SunPower's share capital and voting rights.

### **6.3. TOTAL's interest Sanofi**

In fiscal year 2012, TOTAL sold the remainder of its holding in Sanofi, held indirectly through its subsidiary Elf Aquitaine.

## **7. Social and environmental information**

TOTAL puts Corporate Social Responsibility (CSR) at the heart of its activities and adheres to the following principles:

- to protect the safety of people and its facilities;
- to limit its environmental footprint;
- to ensure that its Code of Conduct is applied in its spheres of operations;
- to incorporate the challenges of sustainable development in the exercise of its activities;
- to increase its local integration by placing dialogue with its stakeholders at the heart of its policy and contributing to the economic and social development of the regions where the Group has operations; and
- to promote equal opportunities and foster diversity and cultural mix among its personnel.

TOTAL follows the IPIECA (the global oil and gas industry association for environmental and social issues) reporting guidance and the GRI (Global Reporting Initiative). More details on these reporting frameworks can be found on the Group's website ([csr-analysts.total.com](http://csr-analysts.total.com)).

TOTAL's CSR performance is measured by non-financial rating agencies. TOTAL has been included continuously in the FTSE4Good index (London Stock Exchange) since 2001 and in the Dow Jones Sustainability Indexes (DJSI - New York Stock Exchange). In 2014, TOTAL was listed in the DJSI World for the eleventh consecutive year and has been the only major in this index since 2010. TOTAL has also been listed in the DJSI Europe since 2005.

The data provided in this section are provided on a current-scope basis.

<sup>(1)</sup> Based on market capitalization (in dollars) as of December 31, 2014.

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#### 7.1. Social information

The quantitative information set out below regarding TOTAL's employees worldwide covers all the entities consolidated under the global integration method. However, some of the data comes from the Worldwide Human Resources Survey (WHRS), which uses almost one hundred indicators to measure the important factors of the Group's employee policy. This annual survey is performed on a sample of employees from the consolidated companies, representative of their distribution by business segment and region; when such WHRS data is mentioned in this document, reference is made to this sample, which represents 91% of the Group's headcount in 2014 (90% in 2013 and 82% in 2012).

##### 7.1.1. Group employees

7.1.1.1. *Group employees as of December 31, 2014:* Refer to Item 6 D.1. Group employees, below.

7.1.1.2. *Employees joining and leaving TOTAL:* Refer to Item 6 D.1. Group employees, below.

7.1.1.3. *Compensation:* Refer to Item 6 B. Compensation Approach to overall compensation, below.

##### 7.1.2. Organization of work

The average work week is determined by applicable local law. It is less than forty hours in most of the subsidiaries in Europe, Japan, Qatar and Australia. It is forty hours in the United States, China, Canada and most Asian and African countries. It is longer in Latin America (Argentina, Mexico, Brazil), in Turkey and in some Asian (India, South Korea) and African countries (South Africa, Equatorial Guinea, Morocco).

Depending on current local law, there are several programs that aim to create a better balance between work and private life and/or to encourage equal career opportunities. In France, teleworking was introduced in 2012. As of December 31, 2014, there were 346 teleworkers in the WHRS France perimeter, 36% of whom were men.

	WHRS 2014	WHRS 2013	WHRS 2012
% of companies implementing part-time work	50%(a)	63%(b)	69%(b)
% of employees, within these companies, working part-time following their request	6%	5.2%	5%
% of companies offering the option of teleworking	16%(a)	22%	19%
% of employees involved in teleworking of those given the option	2.1%	2.3%	2%

(a) Since 2014, only companies implementing part-time work following employee requests are included.

(b) The reduction in this percentage from 2012 to 2013 was due to the difference in the scope of the WHRS.

The sickness absenteeism rate is one of the indicators monitored in the WHRS:

	WHRS 2014	WHRS 2013	WHRS 2012
Sickness absenteeism rate	2.3%	2.5%	2.6%

##### 7.1.3. Dialogue with employees

TOTAL's employees and their representatives have a privileged position and role among the numerous stakeholders with which the Group has and intends to develop regular dialogue (see also 3.1. TOTAL's societal approach, below). In countries where employee representation is not required by law (for example in Myanmar and Brunei), TOTAL strives to set up such representation. There are therefore employee representatives in the majority of Group companies, most of whom are elected. The subjects covered by dialogue with employees vary from company to company, but there are common major themes such as health, safety, work time, compensation, training and equal opportunity.



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As in 2013, organizational changes were carried out in the Group in 2014 in consultation with employee representatives, such as the creation of a new entity (Total Global Services) dedicated to shared IT and telecommunications services, in order to optimize costs while improving the quality of services provided to users. These changes paved the way for a constructive social dialogue, leading to agreements such as that regarding commitments in the context of the proposed disposal of Totalgaz and its subsidiaries. In France, within the scope of the Common Social Framework (approximately 19,000 employees), thirty-one agreements were signed with employee representatives in 2014, covering in particular supplemental health insurance, life insurance, teleworking and compensation systems.

	WHRS 2014	WHRS 2013	WHRS 2012
% of companies with employee representation	75.5%	71.6% <sup>(a)</sup>	79.9%
% of employees covered by collective agreements	67.8%	67.0%	67.7%

<sup>(a)</sup> The reduction in this percentage from 2012 to 2013 was due to the differences in the scope of the WHRS.

TOTAL maintains an ongoing dialogue with employees on a European scale through negotiations with European trade union federations.

Several agreements have been signed, including, for example, the convention on labor relations and equal opportunities that aims to set up a common social platform applicable to all the Group's European entities.

A single Work Committee representing European personnel has been set up at the Group-wide level in order to inform employees and hold discussions on the Group's strategy, its social, economic and financial situation, as well as questions of sustainable development, CSR and safety on a European scale. It also examines any significant proposed organizational change concerning at least two companies in two European countries, to express its opinion, in addition to the procedures initiated before the national representative bodies.

In addition, every other year TOTAL carries out an internal survey (Total Survey) amongst its employees to gather their views and

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expectations with regard to their work situation and perception of the Company, locally and as a Group. The results of the survey conducted in 2013 amongst more than 70% of the Group employees, on 498 sites in 118 countries, show that they have a commitment rate of 73% and that 85% of them are proud to work for TOTAL. The next survey will be conducted at the end of 2015.

Negotiations aimed at reaching a global agreement on Corporate Social Responsibility (CSR) were held in 2014 and resulted in the signing of an agreement on January 22, 2015 with IndustriALL Global Union (IGU). This agreement marks a new stage in the development of the Group's social dialogue, which started many years ago at the European level (ten years of European negotiations, more than fifteen years through the European Committee) and strengthens the Group's commitment as a responsible employer.

By signing this agreement with IndustriALL Global Union, TOTAL is committing to maintain minimum CSR standards and guarantees in all its activities worldwide (companies in which the Group has more than a 50% stake): human rights at work, occupational health and safety, strengthening of the social dialogue, life insurance, professional equality, social responsibility, assisting in the Group's evolution.

The implementation of this agreement will be monitored annually with representatives who are members of trade unions affiliated with IndustriALL Global Union and appointed by this federation.

**7.1.4. Training**

The Group has four priorities in the field of training:

- sharing TOTAL's corporate values, in particular with respect to corporate HSE and ethics;
- increasing key skills in all business areas and maintaining a high level of operating performance;
- promoting employees' integration and career development through induction, management and personal development training; and
- supporting the policy of diversity and mobility within the Group through language and inter-cultural training.

The Group's efforts in the field of training continued in 2014 (78% of employees followed at least one training course) and, within the scope of the WHRS, 380,000 days of training were offered for a total training budget of about €235 million. Technical training or training that meets the specific activity needs are implemented by the operational business divisions in order to better meet the needs of personnel.

In 2014, the Group provided further HSE training, with programs focusing on HSE culture (refer to 7.2.2. Environmental protection 7.2.2.1. General policy, below). This year also marked an acceleration in the development of managerial programs abroad, particularly to strengthen equal career opportunities in the Group. Moreover, the Group has continued the large-scale deployment of business-specific e-learning modules and cross-functional programs on diversity, compliance, competition law, knowledge of the oil and gas chain, etc. In 2014, 30,000 people attended at least one module.

Total University offers Group integration programs as well as courses aimed specifically at developing leadership among managers and executive officers. In addition, Total University presents special theme-based conferences, some of which are open to those outside the Company. These conferences cover strategic topics in the field of energy ranging from technologies to geopolitics and societal issues.

**Average number of training days/year per employee**

(excluding Companion apprenticeships and e-learning)	WHRS 2014	WHRS 2013 <sup>(a)</sup>	WHRS 2012 <sup>(a)</sup>
<b>Group average</b>	<b>4.2</b>	<b>4.0</b>	<b>4.3</b>
<b>By segment</b>			
Upstream	10.4	10.7	9.6
Exploration & Production	10.8	11.2	10.1
Gas & Power	2.6	2.3	5.3
Refining & Chemicals	3.5	2.9	3.2
Refining & Chemicals	3.6	2.9	3.2
Trading & Shipping	1.4	1.6	1.7
Marketing & Services	2.2	2.7	3.3
Marketing & Services	2.9	3.4	3.7
New Energies	0.3	0.6	1.6

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Corporate	6.0	5.5	4.7
<b>By region</b>			
Africa	7.6	8.6	8.4
North America	3.1	3.0	6.1
Latin America	5.3	4.1	3.6
Asia-Pacific	4.6	4.1	5.2
Europe	3.5	3.2	3.4
Middle East	6.9	9.4	5.2
Oceania	0.1	2.3	2.9
French Overseas Departments and Territories	1.6	2.2	2.4
<b>Breakdown by type of training given</b>			
Technical	35%	34%	35%
Health, Safety, Environment, Quality (HSEQ)	21%	22%	26%
Language	14%	16%	14%
Other (management, personal development, inter-cultural, etc.)	30%	28%	26%

*(a) 2012 and 2013 data was restated to exclude Companion apprenticeships.*

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#### 7.1.5. Equal opportunity

TOTAL is an international Group in terms of both its operations and its team members. The diversity of its employees and management is crucial to its competitiveness, its innovative capacity, its attractiveness and its acceptability.

For this reason, TOTAL develops its employees' skills and careers and prohibits any discrimination related to origin, gender, sexual orientation, disability, age or affiliation with a political, labor or religious organization.

In addition to non-discrimination and respect for differences, the Group promotes proactive behaviors that enable everyone to feel welcome as well as an integral part of the Company.

This diversity entails a commitment at the ground level along with leadership at the highest level. Each entity is responsible for defining its own areas of focus based on the legal context and its requirements. Two areas are managed at the global level:

gender diversity: offering women and men the same career opportunities;

nationalities: offering all employees the same career opportunities regardless of their nationality.

Since 2004, the Group's Diversity Council, chaired by a member of the Executive Committee, has overseen activities with a view to increasing the number of women employees, local employees and international employees up to the highest levels of management.

To this end, indicators and quantified goals are in place. The Group's target for 2020 is to have women represent 25% (they were 5% in 2004 and 17.6% in 2014) and non-French nationals 40% (they were 19% in 2004 and 27.2% in 2014) of the executive officers.

##### 7.1.5.1. Equal treatment for men and women

In addition to the various collective agreements embodying its commitment to equal treatment of men and women, TOTAL signed in 2010 the Women's Empowerment Principles – Equality Means Business (unglobalcompact.org), set out by the United Nations Global Compact.

The Group intends to further foster gender diversity in all the Group's professions and enable women to gain access to all levels of responsibility on equal terms with their male counterparts. In this regard, the Diversity Council monitors the following indicators:

% of women	2014	2013	2012
In recruitment on open-ended contracts	33.2%	35.9%	31.0%
Employees in management recruitment/JL <sup>(1)</sup> 310	27.6%	29.2%	27.0%
Employees	31.1%	30.8%	30.0%
Employees in management/JL 310	24.5%	23.9%	23.5%
Senior executives	17.6%	17.0%	16.3%

<sup>(1)</sup> JL: the level of the job position according to the Hay method. JL10 corresponds to junior managers.

TOTAL also participates in the Boardwomen Partners program, which aims to significantly increase the proportion of women on Boards of Directors in large European companies. Following the 2014 Shareholders' Meeting, women accounted for 38.5% of TOTAL S.A.'s Board members, compared with 33% at year-end 2013.

The Group also shows its commitment through agreements or provisions relating to access to employment, maternity and paternity leave, child care facilities, working conditions, balancing work and family responsibilities (agreement on teleworking signed in 2013) and managing dual careers.

In addition, the Group offers women the opportunity to share and discuss through TWICE (Total Women's Initiative for Communication and Exchange), created in 2006. The aim of this network is to promote career development for women and train and educate men and women about gender equality, in line with TOTAL's gender diversity strategy. This initiative is currently in place in France and around the world (Angola, Belgium, Cameroon, Canada, China, Gabon, Germany, Indonesia, Italy, Nigeria, Republic of the Congo, Singapore, United Arab Emirates and United States) and has over 3,400 members. TWICE offers a mentoring program that supports women in their professional development by helping them better negotiate the key phases of their career, deepen their self-exploration and expand their network. This program is currently deployed internationally with 113 mentee/mentor pairs for the 2014 campaign.

**7.1.5.2. Internationalization of management**

With employees representing over 140 nationalities, TOTAL enjoys broad cultural diversity, and strives to reflect this at all levels of the Company and across all business segments.

The Group's companies recruit for diverse activities and professions usually with a large technical component, and strive to prioritize local recruitment.

In 2014, 76% of managers recruited were of non-French nationality, representing close to ninety different nationalities. Several measures have been put in place to internationalize management, including harmonizing Human Resources practices (for example with regard to hiring and annual appraisals), increasing the number of foreign postings for employees of all nationalities, and integration and development training organized by large regional hubs (Houston, Johannesburg, Singapore, etc.).

<b>% of employees of non-French nationality</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
In recruitment on open-ended contracts	90.5%	90.0%	88.2%
Employees in management recruitment/JL <sup>310</sup>	75.8%	73.1%	71.4%
Employees	67.8%	66.6%	64.4%
Employees in management/JL <sup>310</sup>	61.2%	60.9%	59.3%
Senior executives	27.2%	26.2%	24.6%

**7.1.5.3. Measures promoting the employment and integration of people with disabilities**

For over twenty years, TOTAL has set out its disability policy in France through successive agreements signed with employee representatives to promote the employment of workers with disabilities.

While promoting the direct recruitment of disabled people and cooperation with the sector for disabled workers, TOTAL also takes various types of action:

in-house: integration, professional training, job retention, communication, awareness sessions organized for managers and teams, Human Resources managers, etc.

externally: cooperation with recruitment agencies, information and advertising aimed at students, attendance at specialized recruitment forums, etc.

In continuation of the work already undertaken, three new framework agreements, signed for three years (2013-2015) with the French representative unions, set out TOTAL's policy in France with regard to integrating people with disabilities into the work world. In 2014, the average employment rate was 4.27% (direct and indirect employment).

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**7.1.5.4. Measures promoting non-discrimination and diversity**

In addition to basing its recruitment policy on the principle of non-discrimination, TOTAL is involved in a number of initiatives to promote diversity. In France, the Group is in particular a partner in the action taken by Institut Mécénat-Solidarité (IMS)-Entreprendre pour la Cité, with a view to facilitating the integration of young graduates into the workplace.

The Total Foundation also works alongside several associations that help young graduates from disadvantaged backgrounds to find jobs or support them in further education.

In 2014, the Group also signed the LGBT (lesbian, gay, bisexual and transgender) Charter. This document, prepared by the L'Autre Cercle association, establishes a framework for combating discrimination related to sexual orientation and gender identity in the workplace in France.

**7.2. Safety, health and environment information**

TOTAL relies on the charter below, which was adopted in 2000 and updated in 2009 and 2014. This charter now covers the following areas: safety, security, health, the environment, quality and social commitment. It represents the common framework of the Group's management systems in these areas. Group directives define the minimum requirements expected in these fields and are implemented in the business segments, which subsequently factor in the specific characteristics of their operations. Recommendations, guides and manuals are regularly published and made available to the different business segments. They provide invaluable guidance and support for implementing and managing the Group's policies.

**Safety Health Environment Quality Charter**

In accordance with its Code of Conduct, TOTAL has adopted the following principles concerning safety, security, health, the environment, quality and societal commitment:

**Article 1:** TOTAL holds safety, security, health, respect for the environment, customer satisfaction, listening to all stakeholders by way of an open dialogue, as paramount priorities.

**Article 2:** TOTAL complies with all applicable laws and regulations wherever it conducts its business and supplements them with specific requirements and commitments when necessary.

**Article 3:** TOTAL promotes, among its employees a shared culture which the core components are professionalism, the rigorous compliance and application of regulations, skills management, incident feedback and continuous learning. This approach relies on the vigilance and commitment of all.

**Article 4:** Each and every team member, at all levels, must be aware of their role and personal responsibility in the practice of their duties. Individuals must demonstrate the strictest discipline in preventing accidents and deliberate damage; in protecting health, the environment and product and service quality whilst addressing stakeholder expectations. Rigor and exemplarity in these fields are important criteria in evaluating the performance of each member of personnel, in particular for those in positions of responsibility.

**Article 5:** TOTAL favors the selection of industrial and business partners on the basis of their ability to apply policies similar to its own concerning safety, security, health, the environment, quality and societal measures.

**Article 6:** TOTAL implements, for all of its operations, appropriate management policies regarding safety, security, health, the environment, quality, societal commitment and a periodic risk assessment of relevant policies and measures. Any development of a project or launch of a product is undertaken upon full lifecycle risk assessment.

**Article 7:** Appropriate safety, health, environmental, quality and societal commitment management systems for each business undergo regular assessment involving measurement of performance setting milestones, formulating relevant action plans and instituting suitable control procedures.

**Article 8:** TOTAL implements incident response plans and means of intervention designed to face different types of events it may encounter. Such measures are periodically updated and reviewed during exercises.

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**Article 9:** TOTAL is committed to managing its energy consumption, emissions in natural environments (water, air and soils), production of final waste, use of natural resources and impact on biodiversity. It develops new processes, products and customer services in order to enhance energy efficiency and reduce environmental footprint.

**Article 10:** TOTAL adopts a constructive attitude towards safety, security, health, the environment and quality, based on transparency and an open dialogue with stakeholders and outside parties. Through its societal commitment, TOTAL is particularly keen on contributing to the sustainable development of neighboring communities, with a focus on human, economic and social issues. It conducts its operations in such a way as to responsibly ensure security, in compliance with the Voluntary Principles on Security and Human Rights.

The Industrial Safety department and the Sustainable Development and Environment department, together with the Security department, report to Corporate Affairs and provide support to the segments and ensure that they implement policies that reflect the principles of the charter in a concrete, effective manner.

In accordance with oil and gas industry best practices (set out in the IPIECA reporting guidance), the following health, safety and environment information relates to the activities, sites and industrial assets that TOTAL operates or for which it has been given contractual responsibility for managing operations, directly or through one of its companies. An exception is made for information concerning greenhouse gases, which is also

expressed as a Group share of all assets in which TOTAL has a stake. The data presented in this section are provided on a current scope basis.

### **7.2.1. Occupational health and safety**

For many years, the Group has been developing a normative HSE framework. In this respect, directives have been drawn up for occupational health and safety. These directives set out TOTAL's requirements in these areas for personnel working on its sites. In 2013, the three business segments increased their efforts in terms of the reference frameworks of the HSE management systems in order to provide greater overall consistency, while at the same time respecting the businesses' specific characteristics.

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Indicators are used to measure the main results in these areas and monthly reporting of occupational incidents is used to monitor performance at both the global and site level. The Group does not differentiate between the safety of its employees and employees of external contractors (as defined in 7.5. Reporting scopes and method for social and environmental information, below). The indicators below include incidents and hours worked by the Group's employees and those of external contractors.

	2014	2013	2012
TRIR <sup>(a)</sup> : number of lost time injuries per million hours worked	1.3	1.6	1.8
LTIR <sup>(b)</sup> : number of recorded injuries per million hours worked	0.7	0.9	1.0
SIR <sup>(c)</sup> : average number of days lost per lost time injury	29.7	32.0	27.2

<sup>(a)</sup> TRIR: Total Recordable Injury Rate.

<sup>(b)</sup> LTIR: Lost Time Injury Rate.

<sup>(c)</sup> SIR: Severity Injury Rate.

For more than ten years, the TRIR and the LTIR have declined continuously. In 2014, the TRIR for TOTAL employees was 1.1 compared with 1.3 in 2013, and the TRIR for the employees of external contractors was 1.5 in 2014 compared with 1.7 in 2013. The 2014 severity injury rate decreased compared to 2013. The increase in 2013 compared to 2012 was related to a helicopter accident that resulted in the extended absence from work of fourteen employees.

On October 20, 2014, an airplane accident upon takeoff from an airport in Russia resulted in the death of Mr. de Margerie and the crew members. An investigation was undertaken by the competent Russian authorities (MAK) together with experts from the French Office of Investigations and Analysis (*Bureau d'Enquêtes et d'Analyses* BEA). Its findings will not be known for several months.

In 2014, the Group experienced nine accidents that led to nine fatalities. The number of fatalities per million hours worked (Fatality Incident Rate) calculated over a three-year rolling basis is as follows: 0.025 in 2012; 0.022 in 2013 and 0.024 in 2014.

The Group's safety efforts are focused at the same time on preventing major accidents and accidental spills (refer to 7.2.2.3. Incident risk, below, and Item 3 C. Risk Factors, above), occupational accidents (see below) and transport accidents (refer to 7.3.3. Controlling the impact of the Group's activities, below). They cover both TOTAL employees and employees of external contractors. These efforts are coordinated by the Group's Industrial Safety Division and put into practice by the Group's entities, particularly the HSE departments.

Since 2010, the basic rules to be scrupulously followed by all personnel, employees and contractors alike, in all of the Group's lines of business worldwide, have been set out in a safety document entitled *Safety at Work: TOTAL's Twelve Golden Rules*. According to the Group's internal statistics, in more than 80% of severe incidents or near misses with high severity potential in the workplace, at least one of the Golden Rules had not been followed. The proper application of these Golden Rules, and more generally of all occupational safety procedures, is verified through site visits and internal audits. World Day for Safety at Work on April 28, 2015 will be dedicated to the Golden Rules and will be an opportunity to assess their dissemination and knowledge in the field five years after their introduction. Regular presentations and seminars are also organized with the employee representatives on the European Works Council to promote these rules.

In 2013, a worldwide safety campaign was launched in the Group in eighteen languages on the theme of commitment to safety: *TOTAL commitment for me, for you, for all*.

Moreover, the reporting of anomalies (959,000 in 2014) and near misses is strongly encouraged and monitored. The ability of each employee to identify anomalies or dangerous situations is a measure of the personnel's involvement and vigilance in accident prevention and reflects the safety culture level within the Group. In order to strengthen this safety culture level, the reporting of anomalies and best practices was chosen as the theme of World Day for Safety at Work in 2014. An investigation is generally launched in response to any type of accident whatsoever. The method and depth of investigation depend on the actual or potential severity level. For example, a near miss with a high severity potential level is treated in the same way as a severe incident: its analysis is considered to be a key driving force for progress and, depending on its relevance to the Group's other entities, triggers a safety alert and even the dissemination of a feedback report.

The Group's directives are equally demanding with regard to employee health. In particular, the Group's companies are expected to prepare a formal occupational risk assessment (chemical, physical, biological, ergonomic or psychosocial), create a risk management action plan and ensure medical monitoring of staff in line with the risks to which they are exposed. Two main indicators are monitored yearly:

	2014	2013	2012
Percentage of companies included in the WHRS offering employees regular medical monitoring	97%	95%	98%



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Number of occupational illnesses recorded in the year (in accordance with local regulations) per million hours worked	0.81	0.68	0.86
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In 2014, there was a 23% increase in recorded illnesses compared to 2013 with respect to the main occupational illnesses identified at TOTAL:

Musculoskeletal disorders, the main cause of occupational illness, representing 57% of all recorded illnesses in 2014. This figure increased by 65% compared with 2013, proving that specific action plans to control risk and improve working conditions, must be maintained over the long-term.

Illnesses related to asbestos exposure, which decreased by 10% compared with 2013, in line with the continuous decline over several years due to the absence of recent exposure.

Illnesses related to noise exposure.

A Medical Advisory Committee meets regularly to discuss key health issues that may affect the Group. It consists of external scientific experts and brings together TOTAL's management team and those at the Group affected by these issues. This Committee, which provides scientific monitoring of health problems that could impact the Group, enables the best health protection strategies to be put in place, when necessary.

In support of the Group's health policy and to complement the periodic medical surveillance scheme currently in place, TOTAL set up an employee health observatory which is responsible for keeping track over the long term of any medical conditions potentially affecting employees based on employee category. This program can help to identify the emergence of certain health problems and, if applicable, suggest and oversee the appropriate preventive actions. By the end of 2014, fourteen of the Group's

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sites in Europe had signed up for the observatory, which monitors approximately 13% of the Group's employees worldwide.

At the same time, eight French sites give their employees a questionnaire to complete when they have periodic medical check-ups, which are used to measure the impact of the reaction to the stress factors to which they may be exposed.

On a broader level, TOTAL is associated with promoting individual and collective health in the countries where it operates (including flu vaccination campaigns and prevention and screening programs for certain diseases, such as AIDS, cancer and malaria, for employees, their families and local communities). Awareness campaigns relating to lifestyle risks in particular have also been in place for several years (including, for example, anti-smoking and anti-drinking campaigns, musculoskeletal disorder prevention programs). Through its Exploration & Production and Marketing & Services activities, TOTAL is present in West Africa, which has been affected by an Ebola epidemic since March 2014. The Group has set up a special steering committee tasked with coordinating efforts with support from an international network of doctors and in conjunction with national and international health authorities. At the Group's companies located in the affected countries, measures have been taken to inform employees about the disease and prevent and detect it in order to provide them with a high level of protection.

TOTAL decided to give €500,000 to the French Red Cross to help fight the epidemic. The agreement allows the French NGO and its national counterparts to develop emergency programs in Guinea, Liberia and Sierra Leone, the three countries most affected by the virus. The financial support provided by TOTAL is evenly distributed among the three countries.

To the Group's knowledge, none of TOTAL's employees or their family members have been infected by the Ebola virus to date.

### 7.2.2. *Environmental protection*

#### 7.2.2.1. *General policy*

The main Group entities have HSE departments or units that ensure compliance with both relevant local regulations and internal requirements. In all, over 1,000 full-time equivalent positions dedicated to environmental matters were identified within the Group in 2014.

The Group steering bodies, led by the Sustainable Development and Environment department, have a threefold task:

- monitoring TOTAL's environmental performance, which is reviewed annually by the Executive Committee, for which multi-annual improvement targets are set;
- in conjunction with the business segments, handling the various environment-related subjects under their responsibility; and
- promoting the internal standards to be applied by the Group's business units as set out in the charter.

The Group's environmental objectives, which were redefined in part at the beginning of 2013 for the period up to 2017, are as follows:

- decrease flaring by 50% from 2005 to 2014 (excluding start-ups);
- improve the energy efficiency of Group installations by 1.5% on average per year from 2012 to 2017;
- decrease greenhouse gas emissions (GHG) by 15% from 2008 to 2015;
- obtain the Total Ecosolutions label for more than 50 products or services by 2015;
- develop a Biodiversity Action Plan by 2015 for all Group industrial sites<sup>(1)</sup> located in a UICN<sup>(2)</sup> I to IV or Ramsar convention protected area;
- decrease by 40% the volume of hydrocarbons discharged in the Group's onshore and coastal wastewater from 2011 to 2017;
- decrease Group SO<sub>2</sub> emissions by 20% from 2010 to 2017; and
- certify ISO 14001 all of TOTAL's production sites<sup>(3)</sup> by 2017.

In 2014, 305 sites operated by the Group were ISO 14001-certified (compared to 314 in 2013), out of a total of 819 operated sites. The goal is to obtain certification for all production sites that emit more than 10 kt of GHG per year. In 2014, 100% of the 79 production sites in this situation were certified. In addition, two new or recently acquired sites were concerned by the Group's policy to allow two years to obtain certification.

The environmental risks and impacts of any planned investment, disposal or acquisition subject to Executive Committee approval are assessed and reviewed before the final decision is made.

TOTAL ensures that all employees are aware of its environmental protection requirements and employees are given training in the required skills. TOTAL also raises employee awareness through internal communication campaigns (*e.g.*, in-house magazines, intranet, posters) and provides annual information about the Group's environmental performance through circulation of the annual report on CSR topics.

Two three-day training courses on all aspects of HSE are also made available to the business units. HSE Implementation sessions are aimed at employees whose job is specifically to handle one or more HSE or operational areas within a business unit (three sessions were held in 2014 with fifty-six participants). The training session HSE for Managers is aimed at senior operational or functional managers who are currently or will in the future be responsible for one of the Group's business units (five sessions were held in 2014 with 228 participants). Lastly, a HSE leadership for Group senior executives course focusing on management styles has been organized since 2012 (five sessions were held in 2014 with 102 participants). Since 2012, close to 250 senior executives have taken part in this program.

**7.2.2.2. Environmental footprint**

TOTAL implements an active policy of monitoring, managing and reducing the environmental footprint of its operations. As part of this policy, emissions are identified and quantified by environment (water, air and soil) so that appropriate measures can be taken to better control them.

**i. Water, air:** The Group's operations generate chronic emissions, such as fumes at combustion plants, emissions into the atmosphere from the various conversion processes and discharges into wastewater. In addition to complying with applicable legislation, the Group's companies actively pursue a

<sup>(1)</sup> This excludes exploration wells, seismic surveys and distribution and storage of products.

<sup>(2)</sup> International Union for the Conservation of Nature.

<sup>(3)</sup> Defined as the sites emitting more than 10 kt/year of GHG, with a 2-year tolerance.

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policy aimed at reducing the amount of emissions. Sites use various treatment systems that include different types of measures:

organizational measures (*e.g.*, using predictive models to control peaks in SO<sub>2</sub> emissions based on weather forecast data, combustion processes management); and

technical measures (such as building wastewater treatment plants).

These measures can be preventive to avoid generating pollutants (such as low NO<sub>x</sub> burners for combustion plants) or curative (such as biological treatment of processed water to reduce the hydrocarbon content of the final effluent).

To ensure the quality of its wastewater discharge, TOTAL has set, for all of its offshore exploration and production operations, a target of complying with the hydrocarbon concentration requirements set out in the OSPAR standard (less than 30 mg/l), which is only mandatory in the North Sea. In 2014, the Group achieved this goal for the sixth consecutive applicable year, based on yearly averages.

In 2013, the Normandy platform (petrochemical plant) hosted E4WATER, a European research project aimed at developing tomorrow's technologies that would permit recycling water based on a petrochemical pollution matrix. This involves testing seven pilot processes (sand filtration, ozonation for cooling, UV disinfection treatment, ozonation for wastewater, bio-filtration, ultrafiltration and reverse osmosis) on two aqueous flows at the site: wastewater and cooling water. These technologies are mature, but their combination on a petrochemical matrix is innovative. On completion of this project in 2015, the knowledge acquired will be used locally for a recycling project (40% reduction in withdrawal) or globally (recycling program for Exploration & Production and Refining & Chemicals segments). This project aims at both decreasing the discharge of hazardous substances into the natural environment and saving natural resources by recycling water in the processes used by the Group.

The table below shows changes in chronic emissions into the atmosphere (excluding greenhouse gas; refer to 7.2.2.5. Climate change, below) and discharged water quality:

	2014	2013	2012
SO <sub>2</sub> emissions (kt)	65	75	79
NO <sub>x</sub> emissions (kt)	93	91	88
Hydrocarbons in discharged water (t, onshore and coastal, excluding Specialty Chemicals)	295	306	437
Chemical oxygen demand (COD) in water discharged by specialty chemicals (t)	172	270	275

The presentation of hydrocarbon discharges in effluents was changed in 2013 to obtain an indicator consistent with the target set by the Group (40% reduction in onshore and coastal hydrocarbon discharges between 2011 and 2017). In order to compare 2014 performance with that of previous years, the concentration of hydrocarbons in water discharged by Exploration & Production was 16 mg/l in 2014 compared to 17 mg/l in 2013 and 23 mg/l in 2012.

The decrease in SO<sub>2</sub> emissions between 2013 and 2014 was driven by the decrease of flaring and the change of fuel in the Group's refineries (from oil to gas); the vast majority of the fuels used at the Group's refineries are now gaseous, and have a much lower sulfur content than liquid fuels.

In 2014, NO<sub>x</sub> emissions produced by Exploration & Production increased by 3 kt due to the increase in logistics and drilling activities, and therefore of diesel consumption.

The amount of hydrocarbons discharged at the coasts and onshore has slightly declined due to the improved performance of the Group's water treatment.

Below are the Group's achievements at year-end 2014 based on the objectives set at the beginning of 2013:

22% reduction in hydrocarbon discharges in water (onshore and coastal) since 2011 compared to the 40% target set for 2017; and

34% reduction in SO<sub>2</sub> emissions compared to 2010, that is, exceeding the -20% target set for 2017.

The decrease in chemical oxygen demand in water discharged by Specialty Chemicals, in metric tons, is primarily due to the increased reliability of the measurement of this indicator.

**ii. Soil:** The risks of soil pollution related to TOTAL's operations come mainly from accidental spills (refer to 7.2.2.3. Incident risk, below) and waste storage (see below).

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The Group's approach to preventing and controlling these types of pollution is based on four cornerstones:

- leak prevention, by implementing industry best practices in engineering, operations and transport;
- maintenance at appropriate intervals to minimize the risk of leaks;
- overall monitoring of the environment to identify any increase in soil pollution; and
- controlling pollution from previous activities by means of containment or reduction operations.

Moreover, for all entities for which a Group company may be held liable from an environmental standpoint, a Group directive published in 2014 established the following requirements:

- systematic identification of the sites and their environmental and health impacts related to possible soil and groundwater contamination;
- the impacts resulting from soil and groundwater contamination are assessed based on the extent of the pollution (inside or outside the site's boundaries), the nature and concentrations of pollutants, the presence of a vector that could allow the pollution to migrate, and use of the land and groundwater in and around the site; and
- the health or environmental impacts identified are managed based on the use of the site (current or future, if any) and according to the risk acceptability criteria recommended by the World Health Organization (WHO) and the Group. This management is performed by treating the source of the pollution (for example, elimination, chemical, physical or biological treatment), by stopping the transfer of the pollution (for example through appropriate monitoring, capture, soil impermeability, retention ponds, containment), or by eliminating or limiting targets' exposure (for example, by limiting access).

Lastly, decommissioned Group facilities (*e.g.*, chemical plants, service stations, mud pits or lagoons resulting from hydrocarbon extraction operations, wasteland on the site of decommissioned refinery units, etc.) impact the landscape and may, despite all of the precautions taken, be sources of chronic or accidental pollution. TOTAL ensures that they are remediated in order to allow new operations to be set up once the future use of the land has been determined in agreement with the authorities. This continuous task is performed by various teams within the Group, sometimes organized as subsidiaries, and has been governed by a Polluted soil and site remediation Group policy since 2012.

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**iii. Waste:** The Group's companies are focused on controlling the waste produced at every stage in their operations. This commitment is based on the following four principles, listed in decreasing order of priority:

1. reducing waste at source, by designing products and processes that generate as little waste as possible, as well as minimizing the quantity of waste produced by the Group's operations;
2. reusing products for a similar purpose in order to prevent them from becoming waste;
3. recycling residual waste; and
4. recovering energy, wherever possible, from non-recycled products.

For example, TOTAL has developed a partnership with Veolia through its involvement in the Osilub project, which culminated in the construction of a used motor oil recycling plant in Le Havre, France. The plant, in which TOTAL holds a 35% share, entered into production in 2012 and has a processing capacity of 120,000 t/y of oil (50% of all the used motor oil collected in France); the recycled oil is used to make Vacuum Gas Oil (VGO) for refinery production of lubricants and fuels.

A Group directive issued in 2012 sets out the minimum requirements related to waste management. It is carried out in four basic stages:

- waste identification (technical and regulatory);
- waste storage (soil protection and discharge management);
- waste traceability, from production through to disposal (*e.g.*, notes, logs, statements); and
- waste processing, with technical and regulatory knowledge of the relevant channels, under site responsibility.

TOTAL is especially committed to managing and treating waste classified as hazardous. Depending on its type, waste is mainly processed outside the Group by specialized companies:

	2014	2013	2012
Volume of hazardous waste treated outside the Group (kt)	223	232	237

Since 2012, TOTAL has also been monitoring the different waste treatment technologies used for the following categories:

	2014	2013	2012
Recycling	47%	37%	38%
Waste-to-energy recovery	9%	7%	9%
Incineration	8%	12%	12%
Landfill	20%	23%	20%

**iv. Environmental nuisance:** TOTAL's operations may cause environmental nuisances for residents near its industrial sites. These may be sound or odor nuisances, but can also result from vibrations or road, sea or river traffic.

Most sites have a system for receiving and handling residents' complaints, the aim of which is to take account of and gain a clearer insight into the different types of nuisances and to minimize them (refer to 7.3.3. Controlling the impact of the Group's activities, below). Monitoring systems can also be put in place, such as sound level measurements at the site perimeter or networks of sensors to determine the origin and intensity of odors.

#### 7.2.2.3. Incident risk

In addition to setting up management structures and systems, TOTAL strives to minimize the industrial risks and the environmental impacts associated with its operations by:

- performing rigorous inspections and internal audits;
- training staff and raising the awareness of all parties involved (refer to 7.2.2.1. General policy, above); and
- implementing an investment policy.

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In particular, TOTAL strives to prevent accidental spills. A common technological risk management approach has been developed to formalize this requirement at the Group's industrial sites. The methodology is gradually being implemented in all operated businesses exposed to technological risks and sets out a risk analysis based on incident scenarios for which the severity of the consequences and the probability of occurrence are assessed. These parameters are used to create a decision matrix that identifies the required level of mitigation.

With regard to shipping, the Group has an internal policy setting out the rules for selecting vessels. These rules are based on the recommendations of the Oil Company International Marine Forum (OCIMF), an industry association consisting of the main global oil companies that promotes best practices in oil shipping, and its Ship Inspection Report (SIRE) Programme. TOTAL does not charter any single-hulled vessels for shipping hydrocarbons and the average age of the fleet chartered on time by TOTAL's Shipping division is less than six years.

The Tier 1 indicator loss of primary containment (standard defined by the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP)) is monitored at the Group level. In 2014, thirty-seven Tier 1 events were identified in all sites operated by the Group, compared with sixty-six in 2013.

In accordance with industry best practices, TOTAL particularly monitors accidental liquid hydrocarbon spills of a volume of more than one barrel. Spills that exceed a certain severity threshold (whether in terms of volume spilled, toxicity of the product in question or sensitivity of the natural environment affected) are reviewed on a monthly basis and annual statistics are sent to the Group's Management Committee. All accidental spills are followed by corrective action aimed at returning the environment to its original state as quickly as possible.

The table below shows the number and volume of accidental hydrocarbon spills with an environmental impact and that are greater than one barrel in volume:

	2014	2013	2012
Number of hydrocarbon spills with an environmental impact	129	169	219
Total volume of hydrocarbon spills with an environmental impact (thousands of m <sup>3</sup> )	5.8	1.8	2.0

*Note: Soil on sites is deemed to form part of the natural environment unless sealed.*

The sharp increase of volumes spilled in the environment in 2014 is due to the Ile-de-France pipeline accident. This event led to remediation operations that enabled nearly all spilled hydrocarbons to be recovered. Excluding this incident, the volume of spills for other events decreased compared to 2013. This trend is in line with the number of registered events, also clearly down (-24%) compared to 2013.

While risk prevention is emphasized, TOTAL regularly trains in crisis management on the basis of risk scenarios identified through

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analyses. In 2014, feedback from past events prompted the head office to set up a new crisis management center at the Group level. These facilities allow the management of two crises occurring simultaneously.

In particular, the Group has emergency plans and procedures in place in the event of a hydrocarbon leak or spill. For accidental spills that reach the surface, anti-pollution plans are regularly reviewed and tested during exercises. These plans are specific to each company or site and are adapted to their structure, activities and environment while complying with Group recommendations. In 2012, the Group's requirements for preparing emergency plans and the associated exercises were set out in a Group directive.

The Group uses the following indicators to measure its readiness to counteract pollution:

	2014	2013
Number of sites whose risk analysis identified at least one scenario of major accidental pollution to surface water	155	150
Proportion of those sites with an operational anti-pollution plan	90%	87%
Proportion of those sites that have performed at least one anti-pollution exercise during the year	82%	82%

Also available to the Group's companies, the PARAPOL (Plan to Mobilize Resources Against Pollution) alert scheme is used to facilitate crisis management at the Group level. Its main aim is to mobilize the internal and external human and material resources necessary to respond in the event of pollution of marine, coastal or inland waters, without geographical restriction, at any time, at the request of any site.

The Group and its companies have assistance agreements with the main bodies specializing in oil spill management, such as Oil Spill Response Limited, CEDRE and Clean Caribbean & Americas. Their role is to provide expertise, resources and equipment in all of the regions where TOTAL has operations. TOTAL has also forged partnerships with entities that specialize in oiled wildlife care.

Following the blowout of the Macondo well in the Gulf of Mexico in 2010 (in which the Group was not involved), TOTAL created three task forces in order to analyze risks and issue recommendations.

Task Force 1 reviewed the safety aspects of deep offshore drilling operations (well architecture, design of blow-out preventers, training of personnel based on lessons learned from serious accidents that have occurred recently in the industry). Its efforts have led to the implementation of even more stringent controls and audits on drilling operations.

Task Force 2, in coordination with the Global Industry; Response Group (GIRG) created by the IOGP, developed deep offshore oil capture systems and planned related containment operations in case of a pollution event in deep waters. Several of these systems were positioned in various parts of the world in 2013 and one of them was tested by TOTAL in November 2013 during a large-scale exercise in Angola; and

Task Force 3 addressed plans to fight accidental spills in order to strengthen the Group's ability to respond to major accidental pollution, such as a blow-out or a total loss of containment from an FPSO (Floating Production, Storage and Offloading facility). This initiative has led, in particular, to a sharp increase in the volume of dispersants available within the Group.

This work is now complete and the Group's efforts to deploy solutions to minimize such risks are ongoing, in particular regarding

works on wells, subsea dispersant injection, the tracking and predicting of oil slick locations and crisis management organization.

In 2014, the last of the four capping systems resulting from the work carried out as part of the Subsea Well Response Project (SWRP), a consortium of nine oil companies including TOTAL, was deployed. These systems are positioned in various parts of the world (South Africa, Brazil, Singapore, Norway) to provide solutions that can be launched into action in the event of deep offshore drilling pollution incidents. Additionally, as part of TOTAL's own Subsea Emergency Response System (SERS) project, the construction of capping equipment resulting from this work is complete and deployment is scheduled for 2015 in the Gulf of Guinea where TOTAL is strongly present in subsea production.

In November 2013, a large-scale exercise to simulate a massive oil leak in deep offshore waters was conducted in Angola. During this three-day emergency exercise, known as "Lula", the Angolan entity deployed the resources that would have been needed to manage an actual event of this kind (e.g., several ships, an airplane, helicopters, teams working on the FPSO, at the headquarters of Total E&P Angola in Luanda and the Group in Paris, etc.). It provided the opportunity to test a number of the systems implemented by the post-Macondo task forces:

- deployment of a subsea dispersant injection system;
- supply chain for large quantities of dispersants;



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surface anti-pollution mechanisms (e.g., dispersion, recovery);

systems for tracking and modeling of oil slick migration (e.g., satellite tracking, prediction models based on oceanographic/ meteorological data, etc.); and mobilization of partners that specialize in crisis management and pollution control.

Many lessons have been learned from this exercise and a detailed feedback report was drafted in 2014 to strengthen the Group's ability to respond to an accident of this scale. The roles of and relationships between each party in the emergency response were fine-tuned. The time needed to make dispersion systems available was measured and their availability tracked. Pollution assessment and monitoring was tested, in particular regarding the means and information necessary to ensure the tracking and modeling of oil slick migration.

### 7.2.2.4. Sustainable use of resources

**i. Water:** The worldwide distribution of available fresh water varies greatly in space and time. The issue of water consumption therefore requires different responses depending on the regional and technical context.

In order to establish which facilities are affected by this issue as a priority, TOTAL conducts the following:

identification of water withdrawals and discharges across all of its sites; and

identification of sites located in water stress areas (watersheds that will have less than 1,700 m<sup>3</sup> of renewable freshwater available per person and per year by 2025, according to the Falkenmark indicator), using the global water tool for oil & gas developed jointly by the World Business Council for Sustainable Development and IPIECA, and water stress levels are reevaluated each year.

	2014	2013	2012
Fresh water withdrawals excluding cooling water (million m <sup>3</sup> )	112	126	143
Percentage of Group sites, excluding Marketing, located in water-stressed areas	53% <sup>(a)</sup>	49%	49%

<sup>(a)</sup> Percentage calculated using the 2015 version of Global Water Tool.

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The decrease in water withdrawals between 2012 and 2014 is due mainly to the deconsolidation of Fertilizers in 2013 and the Sobegi site in France in 2014.

The increase in the percentage of sites located in water-stressed areas is linked to the evolutions of the Global Water Tool databases in 2014 (source: World Resource Institute, WRI Aqueduct), but also to a global fall in the number of sites located in so-called water-sufficient or water-abundant areas, according to the indicator used (Falkenmark, 2025 projection).

In 2013, the Group launched an initiative to identify the risk levels of its sites (with withdrawals of more than 500,000 m<sup>3</sup> per year) located in water stress areas. The Local Water Tool developed by the Global Environmental Management Initiative (GEMI) is used to perform these assessments. It targets the main risks related to water resources, including effluents, and therefore helps to guide the actions needed to reduce these risks in order to optimize the use of water resources at these sites. This program will be gradually expanded based on the sites' water stress levels and changes to them.

The Optimization of water consumption at industrial facilities guide sets out best practices for saving and recycling water at all Group sites. The guide has been widely distributed throughout the Group since 2007. In addition, several other technical guides on water management specific to the oil industry are used by the Group, including those of the IPIECA and the IOGP on efficient management of the resource for exploration, production and refining, in order to integrate the best and most recent techniques into its practices.

In Exploration & Production operations, reinjecting water extracted at the same time as the hydrocarbons, called produced water, back into the original reservoir is one of the methods used to maintain reservoir pressure. The technical specifications in force in the Group stipulate that this option is given priority over other methods. The Group's R&D programs are an opportunity to study the best techniques for treating this produced water so as to facilitate its reinjection or allow its discharge into the natural environment, if reinjection is not possible, while respecting natural and regulatory constraints.

At refineries and petrochemical sites, water is mainly used to produce steam and for cooling units. Increasing recycling and replacing water cooling with air cooling are TOTAL's preferred approaches for reducing freshwater withdrawals.

**ii. Soil:** TOTAL uses the ground surface that it needs to safely conduct its industrial operations and, at present, does not make extensive use of ground surfaces that could substantially conflict with the various natural ecosystems or with agriculture.

For open-pit oil sands mining projects, TOTAL emphasizes an awareness by the operator of environmental issues, in particular remediation of affected sites.

**iii. Raw materials:** Hydrocarbons, an energetic material, are the Group's main raw material. Optimum use of hydrocarbons therefore lies in what is known as energy efficiency, as described in 7.2.2.5. Climate change, below.

Since 2011, TOTAL has measured the raw material loss rate for each line of business, *i.e.* the percentage of converted raw materials that are neither delivered to any of the business line's customers nor used for energy purposes.

Raw material loss rate	2014	2013	2012
Hydrocarbon production business	2.4%	2.5%	2.8%
Refining business	0.5%	0.5%	0.5%

#### 7.2.2.5. Climate change

The Group's approach to climate and energy is to satisfy a growing demand for energy while providing concrete solutions, as needed, to limit the effects of climate change.

To do so, the Group has built its action around five focal points:

1. focusing on the development of natural gas as the primary fossil energy source due to its low carbon intensity;
2. developing the solar energy offer as the renewable energy of choice in the evolution of the energy mix;
3. improving the energy efficiency of the Group's facilities, products and services, and maintaining efforts in terms of direct emissions of greenhouse gas (GHG);
4. increasing access to a more sustainable energy, for the highest number of people; and
5. making public commitments regarding the industry's acknowledgment of climate issues and working on the challenge posed by climate change.

**i. The role of gas:** The Group believes in the essential role of natural gas as one of the solutions to climate change issues. Indeed, replacing coal with natural gas at power plants could help reduce worldwide CO<sub>2</sub> emissions by 5 Bt/y, *i.e.*, approximately 15% of the effort that must be made by 2030 to remain within the 2 °C warming limit<sup>(1)</sup>. This reduction of GHG emissions can only be accomplished by limiting methane losses to less than 3% throughout the entire production value

chain.

Natural gas rose from 35% in 2005 to more than 50% in 2014 of TOTAL's production and is expected to contribute to approximately half of the Group's production in the coming years.

Methane losses for the Group are below 3%. Indeed, TOTAL is particularly focused on controlling methane since methane's global warming potential is twenty-five times higher than CO<sub>2</sub><sup>(2)</sup> and given its short life span in the atmosphere, a reduction in methane emissions is expected to play a significant role in the fight against climate change. To support this effort, TOTAL became one of the first members of the partnership between governments and industry companies regarding the improvement of tools to measure and control methane emissions set up by the Climate and Clean Air Coalition and promoted by the United Nations Environment Programme and the non-profit organization Fund Environmental Defense.

**ii. Continuing to develop new energies:** TOTAL has long been committed to developing renewable energies. The main focus in developing renewable energies is solar energy through SunPower (world's second-largest player, 59.77%-owned by the Group as of December 31, 2014).

For nearly thirty years, SunPower has developed high-efficiency photovoltaic technologies and has progressively established itself as one of the foremost specialist in solar energy in the World, in particular with regard to the reliability of its solutions. SunPower operates across the entire energy chain, from the production of photovoltaic cells to the designing of turnkey solar plants or residential solar energy installations.

In addition to solar energy, biomass is another TOTAL strategic development point in the field of new energies. Biomass

<sup>(1)</sup> *The New Climate Economy report, published in 2014.*

<sup>(2)</sup> *Fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC).*

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represents approximately 10% of worldwide energy consumption and is mostly used for heating or cooking purposes. Biomass is the only renewable alternative to fossil resources for the provision of liquid fuel for transport (biodiesel, bioethanol, biokerosene), lubricants and base molecules for chemicals (solvents or polymers).

The Group has therefore launched various ambitious research programs and entered into innovative industrial partnerships in order to identify, test, and industrialize the most promising avenues for biomass transformation in societal, environmental and economic terms.

TOTAL invests in R&D to reduce direct GHG emissions into the atmosphere by other means. For example, through Total Energy Ventures (TEV), its venture capital firm created in 2008, the Group supports the development of companies that offer innovative technologies or business models in such areas as renewable energies, energy efficiency, energy storage, GHG reduction, sustainable mobility, etc. For instance, in 2014 TEV acquired a stake in Solidia, a start-up that has developed a technology that uses CO<sub>2</sub> in the production of cement and concrete with high environmental performance. At year-end 2014, TEV had made twenty investments.

**iii. Energy efficiency and eco-performance:** In its area of activity, TOTAL has made reducing GHG emissions one of its priorities. It has set the objective of reducing GHG emissions from its operations by 15% from 2008 to 2015. At this stage, this objective has been met. This reduction entails reducing continuous flaring and improving energy efficiency.

	2014	2013	2012
Operated direct GHG emissions (Mt CO <sub>2</sub> equivalent) (100% of emissions from sites operated by the Group)	44	46	47
Daily volumes of gas flared (million m <sup>3</sup> per day)	9.8	10.8	10.8
Group share of direct GHG emissions (Mt CO <sub>2</sub> equivalent)	54	51	53

#### Reducing continuous flaring

Since 2000, TOTAL has made a commitment to stop continuous flaring of gas associated with crude production for its new projects. The Group's objective to reduce continuous flaring (excluding the start-up of new facilities) by half between 2005 and 2014 has been achieved.

Flaring of associated gas was down in 2014, in particular due to an operational improvement campaign led on the Republic of the Congo fields. Excluding volumes related to the start-up of facilities, the volume of flared associated gas totaled 7.5 Mm<sup>3</sup>/d in 2014. The Group has thus reached its target of a 50% reduction of flared associated gas between 2005 and 2014, excluding start-up phases of new facilities.

In 2014, TOTAL joined the initiative launched by the World Bank and made a commitment to eliminate continuous flaring from its operations by 2030. For over ten years, as part of the Global Gas Flaring Reduction program, TOTAL has worked alongside the World Bank to help producing countries and industrial players control continuous flaring of associated gas. TOTAL's support for the international program spearheaded by the World Bank is a logical continuation of its long-standing efforts in this area.

#### Improving the energy efficiency of the Group's facilities

One of the Group's performance targets is to better control its energy consumption. Internal documents (roadmaps and guides) describe the challenges, set out methodologies and action plans, and even include quantified goals to reduce consumption. Since

the beginning of 2013, a Group directive has defined the requirements to be met by 2016 at operated sites that use more than 50,000 tons of oil equivalent per year of primary energy.

In early 2013, the Group set an objective to improve energy efficiency by 1.5% per year on average between 2012 and 2017 within Exploration & Production, Refining and Petrochemicals (with the exception of the resins business which has now been sold). These activities represent over 95% of the Group's net primary energy consumption. A Group Energy Efficiency Index (GEEI) was created in early 2013 to assess the Group's performance in this area. It consists of a combination of energy intensity ratios (ratio of net primary energy consumption to the level of activity) per business, reduced to base 100 and consolidated with a weighting by each business's net primary energy consumption. Its value was defined as 100 in 2012 and the goal is therefore to reach 92.5 by 2017.

2014	2013	2012
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Net primary energy consumption (TWh)	153	157	159
Group Energy Efficiency Index (base 100 in 2012)	101.0	102.3	100

The decrease in net primary energy consumption is due primarily to the good performance of refining, on a same level of activity basis, as well as the decrease of activity in Exploration & Production.

The Group's energy efficiency improved in 2014 compared to 2013 despite taking into account the start-up of CLOV in Angola which deteriorated Exploration & Production's performance as the flaring of associated gas during the startup phase of CLOV lasted longer than expected. Excluding flaring related to the start-up of facilities, the performance was 100.7 in 2014.

### Improving the footprint of the Group's services and products

TOTAL is also committed to its clients and employees.

Approximately 85% of GHG from oil and gas are emitted during the customer usage phase, compared with 15% during the production phase. For this reason, in addition to the measures taken by TOTAL at its industrial sites, the Group believes that improving the footprint of its products and services is a key factor in the fight against climate change.

In France, Energy Efficiency Certificates (*Certificats d'économies d'énergie* - CEE) are awarded by the administration in recognition of energy-saving activities. TOTAL encouraged its customers to reduce their energy consumption by 50 TWh (over the entire service life of the product) from 2011 to 2014.

Through the Total Ecosolutions program, the Group is also developing innovative products and services that perform above market average on the environmental front, in particular in terms of curbing energy use and GHG emissions. At year-end 2014, seventy products and services bore the Total Ecosolutions label, which puts the Group ahead of its target of fifty products and services by year-end 2015 thanks to the labeling of such product ranges as Azalt Eco bitumen for warm-mix asphalt (bitumen that allows the mixing phases to be completed and executed at temperatures 40 °C lower than those required for traditional bitumen), and despite the loss of several products resulting from sales of subsidiaries in progress or completed (CCP Composites, Bostik, Totalgaz). The CO<sub>2</sub> eq emissions avoided throughout the life cycle by the use of Total Ecosolutions products and services, compared to the use of benchmark products on the market and for an equivalent level of service, are measured annually based on sales volumes. This represented 1.5 Mt CO<sub>2</sub> eq in 2014.

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In 2012, TOTAL introduced an Energy Efficiency scheme that allows its employees in France to improve the energy efficiency of their homes. This scheme was expanded in 2014 to allow them to perform an energy audit of their homes (two-thirds financed) and to receive investment subsidies for energy efficiency upgrades under the Energy Efficiency Certificate program in France, as well as a Group contribution for two upgrade projects and special discounts from building professionals who partner with the Group. By combining an energy audit, energy efficiency certificates and contributions from the Group, employees can receive up to €1,500 in assistance to complete their project.

**iv. Access to energy:** To date, the World Bank estimate for people without access to electricity has exceeded 1.3 billion. In 2011, TOTAL therefore launched a range of innovative solar energy solutions, accessible to the highest number of people, the main project of which is *Awango by Total* (refer to 7.3.4. Creating local value, below).

**v. Public commitments:** To ensure that investment projects are as profitable as anticipated in the desirable event that the international community agrees to put a cost on CO<sub>2</sub> emissions, investments have been valued since 2008 generally based on a cost of CO<sub>2</sub> emissions of €25 per metric ton of CO<sub>2</sub> emitted.

Moreover, in 2014 TOTAL decided to join the call of the United Nations Global Compact, which encourages companies to consider a CO<sub>2</sub> price internally and publicly support the importance of such a price via regulation mechanisms suited to the local contexts. In particular, TOTAL advocates the emergence of a balanced, progressive international agreement that prevents the distortion of competition between industries or regions of the world. Drawing attention to future constraints on GHG emissions is crucial to changing the energy Mix.

According to the IEA, the electricity-generating sector is the sector that must contribute most to the decrease of CO<sub>2</sub> emissions in the World by 2035 in order to remain within the 450 ppm of CO<sub>2</sub> (electricity generation contributes for more than 65% to the emission reduction effort, compared to 11% for the industrial sector, 16% for transport and 4% for the construction sector). Substituting coal for gas in the electricity-generating sector is to date the fastest and cheapest way to reduce worldwide CO<sub>2</sub> emissions. This solution is immediately available and offers the necessary flexibility to electric networks, which supplements intermittent energies. Hence TOTAL supports standards that impose emission thresholds on electricity generation, expressed in gCO<sub>2</sub>/kWh produced. Such standards are being discussed in the United States and the United Kingdom.

In 2014, TOTAL was actively involved in launching and developing the Oil and Gas Climate Initiative, a global industry partnership announced at the UN Climate Summit in New York on September 23, 2014. The aim of this initiative, which at early 2015 included seven major international energy players, is to share experiences, advance technological solutions and catalyze meaningful action in order to assist the evolution of the energy mix in a manner compatible with climate change issues.

TOTAL also actively participates in the debate on climate issues and has long-term partnerships with key stakeholders. For example, TOTAL funds research programs in France conducted by the ADEME, Paris-Saclay and the Climate Economics Chair at Paris-Dauphine University, as well as the Massachusetts Institute of Technology (MIT) in the United States. TOTAL also joined the World Business Council for Sustainable Development (WBCSD) in 2014. Lastly, TOTAL offers training and makes presentations at several universities, thereby taking part in the debate.

**vi. Adapting the Group's facilities to climate change:** The Group assesses the vulnerability of its existing and future facilities based on predictions related to climate change.

Climate conditions are factored into the design of industrial facilities, which are not only built to withstand extreme events observed in the past, but also to include additional safety margins.

The Group's operations can be adversely affected by climate change in many ways. Declining water resources could have a negative effect on the Group's operations in certain regions of the world, higher sea levels could affect certain coastal activities and a growing number of extreme weather events could damage the land-based and offshore facilities. These climate risk factors are continuously assessed in TOTAL's management and risk prevention plans.

#### 7.2.2.6. *Protecting biodiversity and ecosystem services*

Given their nature, the Group's projects, and particularly Exploration & Production projects, may be located in sensitive natural environments. TOTAL's operations can therefore have an impact on ecosystems and their biodiversity. More specifically, impacts may be:

- related to environmental footprints linked to construction sites, access roads, linear infrastructures, etc., which can result in habitat fragmentation;
- physicochemical, leading to changes in environments and habitats, or which might affect or interfere with certain species;
- related to the propagation of invasive species in terrestrial and marine environments; and
- the result of the migratory influx of humans.

TOTAL is aware of these challenges and takes biodiversity and ecosystem services into account in its guidelines and operations:

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in the Safety Health Environment Quality Charter (refer to 2. Safety, health and environment information , above), which specifies that through its societal commitment, TOTAL is particularly keen on contributing to the sustainable development of neighboring communities and that TOTAL is committed to managing its ( ) use of natural resources and impact on biodiversity and therefore supports ecosystem services; and in the biodiversity policy that details the Group's principles for action in this area:

1. Taking an approach based on identifying the risks and sensitivities of environments as early as the project approval process, with special attention given to operations in regions whose biological diversity is particularly rich or sensitive. For example, TOTAL has made a commitment not to engage in oil and gas exploration or extraction operations at natural sites included on the UNESCO World Heritage List of June 4, 2013. In addition, TOTAL currently does not conduct any exploration activities in oil fields under the ice cap.
2. Incorporating biodiversity protection into the environmental management system, particularly into initial analyses and social and environmental impact studies. This effort to assess sensitivity is founded on a constructive attitude based on transparency and dialogue with third parties and benefits from partnerships with biodiversity experts (for example, United Nations Environment Programme-World Conservation Monitoring Center UNEP-WCMC).
3. Following the impact mitigation hierarchy, starting with avoidance, whenever possible, and then minimizing the impact of operations on biodiversity throughout the life

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cycle of the facilities and during their reclamation. TOTAL also assesses biodiversity offsetting approaches.

4. Informing and raising the awareness of employees, customers and the public by helping them better understand biodiversity and ecosystems. The Group is actively involved in research in these areas, including through its partnerships. The Total Foundation also develops initiatives in this area (refer to 7.3.5. Partnerships and philanthropy, below).

This policy is implemented by means of a number of tools and rules. Throughout the Group, and particularly in Exploration & Production, directives, rules, guides and specifications govern the performance of baseline surveys and environmental impact assessments, which allows an approach based on the impact mitigation hierarchy, up to the implementation of management of biodiversity impacts in the field and performance monitoring.

Since 2011, all of the Group's business units have had access to a detailed mapping tool that shows the world's protected areas based on data updated regularly by its UNEP-WCMC partner. TOTAL classifies protected areas around the world according to the categories defined by the IUCN (International Union for the Conservation of Nature), while taking into account protected areas that may not yet be categorized and other sensitive areas in terms of biodiversity. For industrial sites and new projects<sup>(1)</sup> located in the most sensitive protected areas corresponding to IUCN categories I to IV, such as national parks, in addition to its biodiversity policy, TOTAL develops specific biodiversity action plans based on industry best practices. Each development project, particularly new fields, is therefore the subject of an in-depth biodiversity study.

For example, in 2012 TOTAL acquired acreage near Lake Albert in Uganda in partnership with CNOOC and Tullow Oil (33% each). TOTAL is the operator of Block 1 of this license, most of which is located within Murchison Falls National Park and the Ramsar zone of the Albert Nile Delta. This IUCN II-classified park was created in particular to protect its fauna, which includes such iconic species as large mammals (for example, elephants and Rothschild's giraffes), reptiles and numerous birds (including the shoebill). In light of this site's unique biodiversity, and in addition to applying the general principles of the Group's biodiversity policy, Total E&P Uganda set as its objective a net increase in biodiversity. To this end, Total E&P Uganda has taken the impact mitigation hierarchy approach based on specific operating rules, such as using wireless geophone systems for seismic campaigns, limiting the size of drilling pads to 1 hectare (100 m x 100 m) and mapping biodiversity hotspots to prevent interference with areas sensitive for fauna (e.g., breeding grounds) during the seismic campaign, especially in the Albert Nile Delta. A dedicated social and environmental team, whose members include specialists in biodiversity and ecosystem services, has been created. A Biodiversity and Livelihood Advisory Committee has been set up with external stakeholders from national and international organizations specializing in nature conservation and relations between communities and wildlife. Its role is to ensure that Total E&P Uganda is aware of and implements best practices for its operations inside the park in order to help it meet its objective of a net increase in biodiversity, which is currently among the best practices related to biodiversity management.

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In addition, the Group benefits from and actively contributes to the development of best practices related to biodiversity and ecosystem services management in the extractive industry through its partnerships with the IPIECA and the Cross-Sector Biodiversity Initiative (an initiative that brings together the Equator Principles signatory banks and the mining and oil industries). Its partnership with the *Fondation pour la Recherche sur la Biodiversité* (foundation for biodiversity research) in France continues. In 2014, TOTAL also teamed up with the Business and Biodiversity Offset Programme, which will be launched in 2015, in order to strengthen offset mechanisms related to biodiversity damage resulting from its new projects. TOTAL also participated in the IUCN 2014 World Park Congress in Sydney, Australia, where it presented its overall approach to biodiversity management and, together with its peers, demonstrated the oil industry's ability to operate, particularly in sensitive areas in terms of biodiversity.

#### 7.2.3. Consumer health and safety

Many of the products that TOTAL markets pose potential risks, for example if they are used incorrectly. The Group therefore meets its current and future obligations with regard to information and prevention in order to minimize the risks throughout its product's life cycle.

TOTAL uses various guidelines to ensure compliance with the necessary measures to be implemented to promote consumer health and safety:

- the Safety Health Environment and Quality Charter (articles 1 and 6; refer to 2. Safety, health and environment information, above);
- a health policy that sets out the Group's principles for action in relation to incident prevention and protecting the health of people in direct or indirect contact with its products throughout the entire product life cycle, including customers, users and anyone else involved; and
- a directive stating the minimum requirements for marketing products worldwide in order to avoid or reduce potential risks to consumer health and the environment.

TOTAL identifies and assesses the risks inherent to its products and their use, and then informs customers and users of these risks and the applicable prevention and protection measures. The material safety data sheets (MSDS) that accompany all products marketed by the Group (in at least one of the languages used in the country) and product labels are two key sources of information in this regard. All new products comply fully with the regulatory requirements in the countries and markets for which they are intended.



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As part of the first phase of the European Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (REACH), the Group has registered a total of 214 chemical substances. This regulation aims to protect the health of consumers and professionals by means of a stringent assessment of the toxicological effects for each substance use scenario and the implementation of appropriate mitigation measures.

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*(1) Excluding exploration wells, seismic surveys and distribution and storage of products.*

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**7.3. Societal information****7.3.1. TOTAL's societal approach**

Wherever the Group operates, and in line with the values and principles set out in its Code of Conduct and Safety Health Environment and Quality Charter, TOTAL places its commitment to community development at the heart of its corporate responsibility in order to create value that is shared with those living near its facilities, its suppliers and its employees.

Formalized in 2011 and accompanied by a directive intended to facilitate its practical implementation within the Group, the societal policy is one of the cornerstones underpinning TOTAL's commitment to meeting the challenges of sustainable development. The societal policy and directive apply to all Group entities and subsidiaries in compliance with their own decision-making process. This approach, which is deployed in direct relation with operations, encompasses the actions taken to improve the Group's integration into the countries where it operates. Openness, dialogue and engagement are essential for developing constructive and transparent relations with all stakeholders.

To better monitor the societal initiative as a whole, and in line with the strategic priorities as defined by the Group societal policy, societal reporting tools make it possible to both survey the whole range of societal actions conducted locally by the operational divisions and to assess the extent to which the societal directive is implemented within the Group.

This annual reporting aims to improve the assessment of the efforts made by the Group in this field. As of 2013, eight indicators of societal performance, defined on the basis of the societal policy, have enabled a more accurate analysis of the societal approach of the subsidiaries and sites and served as a tool to monitor the Group's societal actions. These indicators measure the quality of social dialogue with stakeholders, the management of the impact of the Group's activities, economic and social development projects and access to energy.

The Group's expertise is based on the continuous professionalization of its societal development engineers. Tools such as structuring projects, setting goals and monitoring and assessment indicators have enabled TOTAL to progress from an aid-giving approach to one in which communities take charge of their own development. In Exploration & Production, more than 400 people are involved in the societal area (including experts under contract), with over 360 involved on a full-time basis. Several documents have been created to formalize the societal methodology at TOTAL: *guide to local dialogue, guide to local content, practical guide to local development projects, the Exploration & Production societal guide and manual.*

This organization is completed by the presence of a Head Office representative who is fully dedicated to relations with NGOs.

**7.3.2. Dialogue and involvement with stakeholders**

Since about twenty years, changes in the regulatory framework have promoted the information, consultation and dialogue with stakeholders prior to making decisions that have a significant impact on the environment.

In addition to complying with regulations, TOTAL sets up structures for dialogue at every level within the Group. The foremost requirement of the Group's societal directive is that *each asset must consult its stakeholders regularly to gain a clearer understanding of their expectations and concerns, measure their level of satisfaction regarding the Group and identify avenues of improvement for its societal strategy.*

**7.3.2.1. Stakeholder consultation processes**

TOTAL strives to develop a continuous dialogue with its stakeholders and to ensure the long-term sustainability of this relationship through various mechanisms and structures. Along these lines, the Group has launched various initiatives in recent years.

In the Group's Exploration & Production entities, the role of the Community Liaison Officers (CLO) is often decisive. Generally members of the local community, whose language they speak and whose customs they understand, they are employed by TOTAL and trained to the culture and specific characteristics of the oil industry so that they can maintain the dialogue between the subsidiary and the local communities. CLOs promote the Company's integration in the local context and are the first link in its societal initiative.

For example, Total E&P Bolivia is currently recruiting a number of CLOs within the framework of the Azero exploration license acquired in 2013. Similarly, in the Democratic Republic of the Congo, two CLOs have been recruited, a community representative undertakes spot assignments as required and consultation committees have been set up at various levels (local authorities, NGO, local populations). In addition, the CLOs receive regular training to ensure greater

familiarization with TOTAL's societal practices: in 2014, this applied in particular to Yemen.

#### **Dialogue prior to exploration and production activities**

This dialogue can be initiated by local consultants within the framework of social baseline studies. This occurred in 2014 as part of the study conducted for the development of the Absheron field in the Caspian Sea for which interviews were conducted by Azeri consultants in the five villages located in a radius of 10 km around the future offshore terminal:

- 400 interviews to obtain socioeconomic information directly from the population (living conditions, access to services and infrastructure, economic activities, etc.);

- ten discussion groups (groups of ten people each, two groups per village, with men and women forming different groups to ensure that everyone felt at ease to express his or her point of view); and

- thirty interviews with key stakeholders (government and local authorities, local industrialists, community associations).

The aim of this preliminary dialogue is to identify at a very early stage, and even before the start of operational activities on site, the stakeholders that may potentially be affected and to understand the human socioeconomic context in this geographical area. This dialogue with the stakeholders will be continued as part of the study of potential impacts and the ways they can be taken into account that will be conducted in 2015.

Agreements may be signed with the communities in order to organize relations with the stakeholders. For example, thirteen five-year Memorandums of Understanding (MoU) are in effect in Nigeria in connection with onshore activities.

Public consultations, meetings with stakeholders, and media campaigns are also organized. In 2014, consultations were held in many different countries, in particular in Bolivia, Bulgaria, Denmark, Mauritania, Myanmar and the Republic of the Congo.

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In Denmark, the local subsidiary plans to drill an exploration well to explore for shale gas in the northern part of the Jutland province. For more than two years, a CLO recruited from the local community has been responsible for communications with the stakeholders. In early 2014, a formal period of consultation with the stakeholders began, including a public consultation together with a presentation of the results of the impact study. Following this meeting, a large number of questions were sent by stakeholders, and Total E&P Denmark provided the necessary technical information to the local authority. Since the end of this formal phase, regular meetings have been organized with residents to explain the operating process and its scheduling. Civil engineering work to prepare for drilling started in the fall of 2014 and local associations, the local community, and local and national government bodies are kept regularly informed of the progress of operations.

In France, within Refining & Chemicals, site monitoring commissions were set up in 2014 at the main industrial sites, pursuant to the French technological risk prevention act. These commissions replaced the local information and consultation committees. The site monitoring commission is a regulatory information-sharing structure which is required to be set up in France in facilities classified for environmental protection (*Installation classée pour la protection de l'environnement* - ICPE). The commission allows a dialogue to be established, to provide information relating to the operation of the facility and in particular its impact on people and the environment. The commission regroups representatives of public administrations, of the facility's owner and its employees, communities and associations for the protection of the environment or consumers. The commission is chaired by the prefect.

In Belgium, the safety and environment commission of the Feluy industrial park, which was set up on TOTAL's initiative in 2014, is a permanent voluntary forum for dialogue among industrial players, authorities and residents on the impacts of companies' operations in the areas of safety, health and environmental protection.

In the United States, as of the signature in 1991 of Responsible Care®, a voluntary commitment of the global Chemicals industry, Community Advisory Panels have been actively working in cooperation with local residents.

#### 7.3.2.2. SRM+ dialogue tool

To put its societal approach at its sites and subsidiaries on a professional footing, TOTAL implemented the internal SRM+ (Stakeholder Relationship Management) methodology in 2006. Its aims are to identify and map the main stakeholders, schedule meetings with them and understand their perceptions and stakes, and then define an action plan for building a long-term relationship. This mechanism represents a unique opportunity to explain the Group's activities and present the actions it implements, but also to listen to the expectations of local stakeholders and answer questions. It also makes it possible to establish a trust-based relationship and demonstrate that TOTAL is completely transparent in its activities. Ultimately, these discussions allow the Group to consolidate its strategy and identify expectations to which it can respond.

In 2014, SRM+ was rolled out to a number of Group entities.

Exploration & Production, in particular, has undertaken new deployments:

In three countries (South Africa, Uruguay and Bulgaria) in which the development of oil-related activities is still at a low level, SRM+ has been deployed at a very early stage of activity within the exploration process. This approach has made it possible to create a climate of confidence and openness and to launch a dialogue which has enabled the subsidiary to develop a strategy for its relations and communication with stakeholders; and in the Republic of the Congo, the SRM+ approach has made it possible to better understand changes in stakeholders' expectations. In 2014, a new module was developed and tested in Pointe-Noire. From now on, it will ensure that the portfolio of community development activities is better harmonized with these expectations.

Marketing & Services has also undertaken new SRM+ deployments in 2014:

At the Hsinchu lubricants plant in Taiwan, sixteen stakeholders were interviewed, raising subjects such as information on Group activities and road safety. The use of the SRM+ tool has enabled the generation of a suitable action plan by the teams and the validation of a number of actions in consultation with the management of the subsidiary. Initiatives in the field of road safety are underway and include, in particular, the planned installation of a road safety cube in a nearby school. Following the deployment of the tool, meetings with the various stakeholders (NGOs, authorities) have also been held in order to define joint actions in a number of different fields and increase familiarity with the Group's activities at a local level;

In the United States, the Linden lubricants plant (New Jersey) has been part of the city's urban and industrial landscape since the 19<sup>th</sup> century. Eight stakeholders were interviewed during the SRM+ study which was conducted in 2014. The main concerns related to the human and social development of the community in the vicinity of the plant. More specifically, the action plan included visits to the site, a closer partnership with the local university, TOTAL's participation in its partners' representative bodies, and involvement in events and local activities;

In Africa/Middle East, SRM+ was implemented at forty-two sites in 2014. Nine new subsidiaries drew up action plans following consultations with the relevant stakeholders (Burkina Faso, Chad, Egypt, Eritrea, Jordan, Niger, Saudi Arabia, Togo and Zambia), thus bringing the number of countries in which

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the approach has been adopted in the region to thirty-one. SRM+ has been implemented in the vicinity of depots, service stations and the head offices of subsidiaries; and

SRM+ has proved to be a very useful tool, for example during the construction of a service station in the Republic of the Congo where the increase in traffic volumes had caused concern among the local population. These fears led the subsidiary to target its interventions on the nearby school in order to familiarize local children with road hazards. In Ethiopia, local communities in Dukam expressed their wish to be involved in a tree planting program around the depot.

As a result, 3,000 trees were planted with the help of employees and local residents. This operation, which is known as "Green village of Total Ethiopia and Dukam Town administration village" will be repeated each year. Much appreciated by stakeholders as an original initiative, the SRM+ approach has led to the organization of open-day events at a number of the Group's gas depots in South Africa, thus increasing the level of familiarity with TOTAL's sites and reassuring local residents about the Group's activities.

Finally, in Refining & Chemicals, the SRM+ approach is currently being implemented at the Donges refinery in France.

### **7.3.2.3. Dialogue with indigenous and tribal peoples**

TOTAL is aware of the specificities of indigenous and tribal peoples (as identified in the International Labor Organization's Convention

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No. 169), and has introduced a charter regarding indigenous and tribal peoples with guidelines and principles to be followed with communities that are in contact with its subsidiaries. Under this charter and in compliance with its Code of Conduct, the Group strives to identify and understand the legitimate needs of the communities neighboring its subsidiaries. In particular, this charter encourages the subsidiaries to call on experts to identify and understand the expectations and specificities of indigenous peoples, to consult and dialogue with them before starting industrial projects and to make a positive contribution to their socioeconomic development.

Fully aware that taking human rights into consideration is one of the cornerstones of its industrial projects with respect to local populations, in 2012 TOTAL participated in the work of IPIECA (the global oil and gas industry association for environmental and social issues) to develop the guide entitled *Indigenous Peoples and the oil and gas industry: context, issues and emerging good practices*. The Group thus shared its experience with the Guarani people in Bolivia. Total E&P Bolivia has started a partnership with the Guarani communities in the Santa Cruz area and has launched a number of socioeconomic development initiatives, by engaging in the fight against discrimination, and especially gender discrimination.

**Dialogue with indigenous communities in Bolivia**

Since 2011, Total E&P Bolivia has been developing a gas field discovered in 2004 in the eastern lowlands of Bolivia. The Incahuasi project involves the construction of a gas plant located on the Guarani territory of Alto Parapeti as well as a 100 km-long pipeline which will run through three other Guarani territories. The legal framework within which the project is being conducted is extremely protective of the rights of indigenous peoples. The consultation process must make it possible to identify the economic and sociocultural impacts of the project and determine the economic compensation for unavoidable impacts.

The consultation process initiated by the subsidiary in 2011 to obtain the environmental permit was suspended in the wake of opposition from an indigenous organization that owns a part of the area regarding rights of use and passage.

Consultation with the indigenous peoples was resumed again from May to September 2013. Total E&P Bolivia played an extremely active role in the consultation process and negotiations resulted in an agreement concerning the joint identification of the environmental, social, economic and cultural impacts. The unavoidable sociocultural impacts will give rise to compensation, which is to be negotiated between the indigenous organizations and the Company. Open-mindedness of spirit coupled with perseverance have enabled the community development team to build an atmosphere of trust and conduct discussions with a wide range of partners, including both official and unofficial leaders, as part of a direct dialogue with the communities rather than simply with their representatives.

2014 was marked by extensive negotiations with four indigenous Guarani organizations and involved more than thirty meetings.

Transparency with regard to the agreements signed with the local authorities and respect for their application are key principles underpinning the responsible, credible management that makes it possible to construct a long-lasting trusting relationship. The community leaders, though sometimes reticent, recognize the positive impact of this approach, including in terms of their own role within their communities.

The implementation of a procedure for the handling of grievances represented a major challenge. In a country which is used to seeing demonstrations and blockades of all types, this new mechanism had to prove its effectiveness. Of forty complaints received since the beginning of the year, only two are still currently unresolved.

The participatory approach set up to identify, monitor and assess societal projects encourages the involvement of the persons who are affected. Partnerships with institutions possessing in-depth expertise have strengthened the credibility of the societal team. The communities involved sometimes prefer to entrust Total E&P Bolivia and its partner institutions with the responsibility of implementing the projects in order to guarantee that all their members share equitably and transparently in the benefits.

**7.3.3. Controlling the impact of the Group's activities**

In order to better control the impact of the Group's operations, the societal approach is integrated into its operational processes.

Since 2012, societal issues have been integrated into Exploration & Production's and Refining & Chemical's HSE management systems, known as MAESTRO (Management and Expectations Standards Towards Robust Operations). Seven audits were conducted within the Exploration & Production division in 2014 (Algeria, Gabon, Indonesia, Italy, Myanmar, Nigeria and the Netherlands). In total, these audits have given rise to sixty-seven recommendations and will help support efforts to improve control of the societal impacts of the Group's operations. The HSE approach has been extended to H3SE (Health, Safety, Security, Society, Environment), with Societal and Security being added to Safety.

**7.3.3.1. Understanding the social context: baseline studies**

To gain a better understanding of the socioeconomic context, it is first necessary to conduct a baseline study. On average, these studies last between three and six months and are generally accompanied by a consultation phase involving local stakeholders. In the onshore Neuquén basin in Argentina, the baseline study lasted more than six months during 2014.

As part of the Azero exploration Block in Bolivia, a socioeconomic baseline study is currently underway over an area of 786,000 hectares on which exploration work will take place. This area includes six indigenous Guarani territories, fifty Quechua communities, eleven municipalities and two parks (one national and the other regional). This study will make it possible to launch a dialogue with all these new stakeholders at an early stage of activities. To undertake this action, the subsidiary's societal team is growing stronger, in particular by recruiting new CLOs.

**7.3.3.2. Avoid, reduce, compensate: impact studies**

In Exploration & Production, impact studies are carried out before any operation in accordance with TOTAL's standards. In 2014, such studies were conducted or launched, for example in Mauritania (prior to the drilling of a deep offshore exploration well), in Myanmar (new deep offshore exploration block) and in Uganda. For the Group's other activities, impact studies are conducted on a case-by-case basis.

Within the context of the eleven new offshore exploration blocks acquired in Brazil, the terms of reference of the impact studies are currently being defined.

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As part of the redevelopment of offshore production at the Bul Hanine and Al Khalij fields in Qatar, the state-owned company Qatar Petroleum has asked TOTAL to conduct impact studies.

In the Democratic Republic of the Congo (DRC), Total E&P RDC became an operator in Block III of the Graben Albertine. TOTAL made the commitment not to carry out any exploration activity in the Virunga national park, partly located in Block III. In agreement with the national Congolese authorities and in compliance with the Group's own internal rules, a human rights and conflict probability assessment was conducted in 2013 and 2014 by the International Alert NGO, specialized in conflict-related studies. This assessment was carried out in parallel with the environmental and social impact assessment study, which was conducted from September 2012 to June 2013 and involved two visits to the block. The results of this study were made public to the representatives of the local population, the local authorities and NGOs in October 2014. TOTAL has committed to applying its recommendations.

In Uganda, Total E&P Uganda is in particular operator of Block EA1. According to Ugandan law, TOTAL is not required to carry out an impact assessment until the government has approved the project. However, Total E&P Uganda has asked a team of international and national experts to perform a number of social screening studies. The results of these studies led to significant changes in the project to avoid or minimize the impact on the communities living close to future facilities. The specifications for the environmental and social impact study for the Buliisa development project have written. TOTAL has been working together with the international organization SNV since 2012 to develop agricultural diagnostics based on a methodology developed by French agricultural engineers (AgroParisTech). The study consists of a qualitative and quantitative analysis of the most important agricultural value chains present in the area covered by the exploration block (maize, cassava, rice, honey, vegetables and dairy products). The aim is to provide support for the existing agricultural systems and help accelerate development by making it easier for traditional rural communities to gain access to major national buyers (tools, training and contact platform, purchasing center, storage sites).

In Nigeria, research commissioned since 2008 to the Advanced High School of Economic and Commercial Sciences/Institute for Research and Education in Negotiation in Europe (ESSEC/IRENE) on the impact of oil production activities on people living in the Niger Delta, and involving field surveys and interviews with the concerned populations (Onelga and Eastern Obolo), has been finalized and consolidated. Two surveys conducted in 2008 and 2012 have made it possible to perform better assessments of the area and monitor the evolution of indicators.

In addition, the Group regularly uses CDA, an independent, non-profit organization, to assess the impact of its operations and socioeconomic programs in host countries. For example, CDA conducted an evaluation mission in Myanmar in November 2014. The corresponding results are available online on the organization's website.

Finally, the Management Operational Societal Tool (MOST), originally introduced in 2011 to assist in the management of local development projects by subsidiaries, has expanded in scope. The tool is now deployed in sixteen sites in thirteen countries and is used to manage other aspects of societal projects: relations with stakeholders (contacts, events, issues), site-related grievances, land acquisitions, compensation relating to the Group's industrial activity, temporary employment during seismic survey campaigns.

The use of this tool forms part of the process of increasing the professionalism of local teams and introducing better structured reporting to serve as a basis for the analysis of societal performance.

#### **7.3.3.3. *Handling grievances from local communities***

In Exploration & Production, subsidiaries are progressively setting up grievance mechanisms for local communities impacted by industrial projects. Inspired by the United Nations Guiding Principles on Business & Human Rights, a guide covering this procedure for the handling of grievances was drawn up and published in August 2013. This procedure is an integral part of the societal management plan and represents a concrete expression of the first requirement of the Group's societal directive. For example, a dedicated mechanism for the handling of grievances was introduced in Uruguay as part of stakeholder communications as early as the seismic campaign (exploration phase). This plan, which was drawn up by the subsidiary's societal team, is supported by the presence in the field of a CLO who is a member of the local community. Similarly, in Uganda, dedicated grievance handling mechanisms based on the local presence of CLOs have been prepared or existing plans have been updated as part of the overall societal management plan.

In 2012, IPIECA, working in combination with the Triple Alliance agency, launched seven pilot projects to improve the management of the processes used to gather and handle grievances. Total E&P Congo was chosen to participate in one of these pilot studies. This process is consistent with a desire to enhance the dialogue between Total E&P Congo and the Djeno community, in order to avert societal risks and foster the proactive and responsible management of the subsidiary's operations. Following various missions undertaken by Triple Alliance in 2012 and 2013, Total E&P Congo has developed a new procedure for gathering and handling grievances and this was introduced in 2014.

In 2014, Marketing & Services published a brochure designed to raise awareness of grievance management issues in order to allow the segment's subsidiaries and operating sites to get familiar with this subject and introduce systems for the handling of grievances separate from those used to deal with commercial complaints. This mechanism is currently being tested in a number of subsidiaries. It should encourage the rapid expansion of this good practice through the adaptation of the



existing procedures.

**7.3.3.4. Managing impacts: road safety, a priority**

As a key element of safety management, road safety is one of the Group's main societal priorities.

Consequently, TOTAL launched a sweeping inspection program for its transporters in Africa and the Middle East in 2012. This improvement program goes beyond merely auditing, in that the transporters are assisted in improving their transport management systems in order to achieve compliance with the safety requirements set out by TOTAL. In order to ensure objectivity, this initiative benefits from the support of independent transport experts.

These inspections are based on four interdependent audit items: driver training, the technical standards met by the vehicle fleets, itinerary management, and the existence of a management system. They enable a dialogue to be started with the transporters and lead to an assessment which, if necessary, is followed up by an improvement plan. In such cases, a follow-up inspection performed the following year enables the validation of the improvements made. Alternatively, if the requested progress has not been achieved, these inspections may result in the termination

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of the contract. More than 90% of the transporters contracted to the subsidiaries of Marketing & Services in Africa Middle East were inspected between December 2012 and October 2014. 70% obtained a rating complying with TOTAL's standards and requirements. The contracts of those who did not meet the expected standards within six months were terminated. Thus, at end 2014, 28% of the contracts of inspected transporters were terminated (*i.e.* 90 out of 326). Some rare exceptions were granted a derogation to be reinspected.

In 2014, 66 initial and 101 follow-up inspections were performed. Even at this stage in the project, it has already been possible to note a fall in the number of accidents, the optimization of truck rotation, and improved profitability which has allowed transporters to modernize their fleets. This approach has made it possible to gather the best available practices and has led to the production of a booklet intended for all transporters.

As of 2013, the Africa-Middle East division has implemented a light vehicles policy which has been deployed in all the subsidiaries of the region. It sets out the requirements for vehicles owned or hired by the Group entities. This policy introduces or serves as a reminder of safety regulations, including the need to use suitable, roadworthy vehicles, improvements of drivers' skills and behavior, the analysis of traffic risks, itinerary management and the feedback of information about events and dangerous situations. Various criteria (ABS, age and mileage, airbag, safety belts, onboard computers, etc.) have been identified to enable the monitoring of the conscientious application of these rules. The result has been the early renewal of the vehicle fleet to ensure compliance. Almost all of the vehicles now comply with requirements. In order to ensure these rules are effectively complied with, the procedure provides for preventive driving training every two years and annual awareness-raising sessions at which drivers can share their experiences. The analysis of traffic risks, together with the events and dangerous situations reported by drivers, are key elements in evaluating driving practices and ensuring the continuous improvement of the procedure.

In line with the United Nations resolution on the decade of action for road safety, TOTAL has signed a partnership with the World Bank relating to the introduction of the African Road Safety Corridors Initiative (ARSCI), a scheme intended to improve road safety and reduce accidents and the number of victims on two cross-border road corridors characterized by particularly high fatality levels. Bringing together a number of private and public partners, collaboration within the ARSCI project has helped to identify the northern corridor (linking Mombasa to Kampala) and the central corridor (between N'Djamena and Douala).

In 2012, to help mobilize the public and private sectors as well as the associations that are active in the field, TOTAL set up an independent organization known as Safe Way Right Way (SWRW). It aims at uniting and mobilizing partners in order to raise funds and implement actions and awareness campaigns in cooperation with the authorities, all of this with a view to improving regulations and their implementation. Through SWRW, TOTAL is working together with partners in Kenya, Cameroon and Uganda to encourage the development of road safety initiatives. In 2014, awareness campaigns were organized in Kenya as part of the road safety week and a special day dedicated to the commemoration of victims of road accidents. In Cameroon, nearly 100,000 people were made aware of traffic risks via the safety caravan. Further activities have also been undertaken in partnership with police forces: in Kenya, a benchmark study has made it possible to identify 160 accident black spots together with the reasons that make them so dangerous. The resulting map, which has been

provided to the Ministry of Transport and Infrastructure, should lead to measures such as the installation of road signs. It has also been made publicly available on the SWRW website. Also in cooperation with the police, a speed reduction campaign in Uganda has led to the donation of speed cameras accompanied by training events and activities designed to make users aware of road hazards.

To be as effective as possible in the deployment of its programs, TOTAL is inspired by the partnership-oriented approach adopted by the Global Road Safety Partnership (GRSP) of which it has been a member since 1999. This public-private partnership has the aim of improving road safety. Launched in 2005, the Global Road Safety Initiative (GRSI), funded by five members of the GRSP including TOTAL, focuses on the development of pilot projects which are based on a model and methodology developed by the GRSP with the objective of being replicable across the regions in question. This is the case of the 'Safe to school - Safe to home' project which was developed in partnership with the local authorities in Mohammedia in Morocco as well as in Lusaka in Zambia. Thanks to a study and a number of workshops, it has been possible, in particular, to identify risk areas and then run awareness campaigns to make the journey between home and school safer. Again within the framework of the GRSI, two seminars organized in South Africa and the Philippines on the subject 'safer cities for children' have provided a forum in which to share concrete experiences and discuss good practices.

**The road safety cube : a tool for raising awareness among children**

The 'safety cube', a distinctive large box housing play-oriented teaching equipment, is a method of spreading the road safety awareness and training campaign to schools. The safety cube is installed by the Group's subsidiaries in the Africa Middle East region in partnership with Education and Transport ministries and local NGOs and its deployment owes much to the considerable efforts made by employees. In the region, the program is constantly gaining ground and the number of subsidiaries that have contributed a cube has now reached thirty (four additional subsidiaries in 2014). Based on this success, the cube has now also been welcomed in other countries, in particular in Asia where pilot models have already been installed. This has also encouraged other ambitious initiatives such as the opening, in late 2013, of the Children's Road Safety Education Center (Senegal) using this cube to train the young people of Dakar in the field of road safety by means of a life-size road circuit.

In 2014, nearly 300,000 children were familiarized with the dangers of the road thanks to the 'safety cube' and other road safety programs.

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In France, the Group also pays considerable attention to the issue of road safety. In order to raise awareness among young people aged from 15 to 24 years (who are the age group most likely to suffer road accidents), TOTAL has, as of 1995, contributed to the *10 de Conduite Jeune* training operation for young drivers in cooperation with the French national police, Groupama and Renault. Four different routes travel across France every year during the school term in order to raise awareness of the risks associated with alcohol, tiredness and dangerous behavior. Thanks to this initiative, more than 10,000 school students aged between 14 and 18 years benefit from theoretical and practical training every year.

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#### **7.3.4. *Creating local value***

Wherever it operates, the Group has a special responsibility for the socioeconomic development of the communities living close to its facilities and attempts to make its activities a source of value and opportunities for them.

TOTAL is building a global and integrated local development approach ( *In Country Value* ) which creates synergies between all the value-creating elements for the host country (infrastructures, support for local industries, employment, subcontracting, socioeconomic development projects, education, access to energy, etc.) by highlighting the Group's industrial know-how. This approach is reflected in two main strategies:

on the one hand, the Group's commitment to local content and the support for the implementation of socioeconomic programs; and  
on the other hand, the implementation of access-to-energy programs.

##### **7.3.4.1. *The Group's commitment to local content***

The preference for local content refers to the awareness of all the local synergies associated with the Group's operations, with a view to promoting the development of skills and supporting local industry. TOTAL has a long history of commitment to employing local people, providing training and education, and encouraging local economic development. The Group works to promote the development of the industrial fabric and local employment (local production, local personnel in the subsidiaries, pre-qualification of local contractors, development of domestic infrastructures, diversification of the local economy). This is particularly true in Africa due to the Group's high profile.

The Exploration & Production business segment conducts various actions among its suppliers at local level. Preliminary studies are performed prior to project launch in order to ascertain what resources are available locally (craftsmen, technicians, suppliers) and to identify any gap regarding the content of the project. A range of local actions are then proposed to remedy these gaps. These include communicating the needs of the oil industry, identifying suppliers, and examining the possibility of setting up training activities to assist in the development of local skills. Local initiatives are also undertaken by the subsidiaries.

The methodology in this area was formalized in Exploration & Production in 2014 through a local content roadmap. It highlights four main types of action: publishing industrial/manpower demand, using a unique supplier database per subsidiary, developing a large-scale program for the training of technicians and comprehensively studying industrial development. TOTAL has already participated in the development of the IPIECA *Local content strategy guide* and will help update this document in 2015 in its role as Vice-President of the task force in charge of this work.

For the CLOV project, which started production in 2014, more than ten million hours of work were completed in Angola. Through CLOV, Total E&P Angola has also trained nearly forty students holding an operator's diploma, who are now working on the FPSOs (floating production, storage and offloading) in Block 17 in Angola. This is the first time in Angola that a project has been conducted with so many local man-hours and with such a high level of production carried out inside the country. The contractual provisions for the Kaombo project plan for the conduct of thirteen and a half million hours of work locally. The local content initiatives launched in 2014 include the development of local suppliers in close collaboration with the *Centro de Apoio Empresarial*, an Angolan state organization which focuses on the development and monitoring of local businesses (in particular with regard to training).

In Nigeria, over 80% of the subsidiary's employees are locals and more than 100 new local recruits are expected each year. 28% of the construction work to develop Akpo was entrusted to local contractors, which represents approximately ten million hours worked. The agreement for the Egina project provides for the completion of approximately twenty-one million hours of work locally.

In the Republic of the Congo, Total E&P Congo set up an organization dedicated to the development of local content in 2012. This department's task is to expand the use of Congolese enterprises, in particular by identifying and assessing local companies likely to become Total E&P Congo's subcontractors and then by providing them with programs to develop their capacities (*e.g.*, managerial, industrial, HSE, etc.). An in-depth study to identify the potential to increase the local content in Total E&P Congo revealed the business areas where this potential was the highest. To strengthen local capacities in these key areas, the Moho North project instituted a mandatory local content plan with respect to its international contractors, cascaded down to lower-level local contractors.

In South Africa, the Marketing & Services subsidiary provided its knowledge of the African market to the Petrotank company (a supplier of tanks for storing hydrocarbons in service stations) in order to help it set up a factory. It also assisted in the formalities and meetings necessary for the creation of this facility. Opened in 2013, the production plant now employs approximately fifty locally recruited workers. The possibility of opening further sites is being studied.

In Kenya, Prosel (a company specializing in the design and manufacture of illuminated signs) has been working with TOTAL since 1991 and is currently assisting the Group in a restyling project for its service stations which is intended to improve their integration with the environment. This small company has been able to grow over the years to take on an international dimension thanks to the experience acquired as a supplier to the Group.

**The Young Dealers program for skills development**

For several years, the Marketing & Services segment has organized the Young Dealers program in Africa and the Middle East, aimed at promoting young service station employees who have business and managerial skills. The aim is to help employees with potential to eventually become a service station manager. Thanks to this program, young people unable to provide a guarantee can benefit from a financial loan along with training and substantial technical assistance. A number of them thus have the opportunity to create and succeed in their own business activity in the distribution of petroleum products. With this management mode, the Group develops skills and boosts the motivation of its service station employees. Out of the approximately 5,000 service stations in Africa/Middle East, 1,374 are managed by young dealers, *i.e.*, 28% of TOTAL's network.

Launched in 2014, the Young Graduate Program is intended for young graduates from the countries of Africa or the Middle East who have graduated following five years of higher education and have at least one year of professional experience. Initially employed locally on a six-month contract, these young people undergo an assessment half-way through their period of employment. If this is satisfactory, they are then able to sign a twelve-month contract with another subsidiary in the region.

Following this period of international experience, the young people may again be recruited by the subsidiary in their country of origin. This innovative career trajectory exposes them to a different environment at a very early stage, enhances their skills and makes it easier to recruit young people with high potential.

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**7.3.4.2. Supporting small and medium-size enterprises and regional development in France**

Since the 2000s, the participation of local service providers in industrial projects in France has steadily increased. In addition to the jobs generated by its activities, the Group, as a responsible company, supports small and medium-size enterprises (SME) in France, particularly through *Total Développement Régional* (TDR). The aim of this structure is to promote the creation of SMEs with a view to developing the local economic fabric. TDR has set up a program to pre-qualify and certify French small and medium-size companies, in line with the standards required by the Group, in order to work with more local suppliers. TDR can also support planned employment area regeneration schemes alongside the redeployment of the Group's activities, as illustrated by the reconversion of the Lacq industrial basin. This support, which represents a major element in TOTAL's commitment to its industrial and economic responsibilities, takes a number of different forms: financial assistance for business creation; takeover and development of SMEs; assistance in regeneration projects conducted in collaboration with local development bodies; assistance in the development of export activities and international trade; help for innovative SMEs. In the last three years, TDR has provided €12.5 million in financial assistance for 386 SMEs, supporting 6,964 jobs.

**Regional development around the Refining & Chemicals platform in Normandy**

Another example of regional development in France is provided by the Normandy platform. In the context of investments (exceeding €1 billion) aimed at adapting the production facility to market demand and future environmental requirements by improving the energy efficiency, safety and reliability of the facilities, the *Total Emploi Local* (Total Local Employment) initiative has been implemented in order to promote the development of local employment by training and professionalizing unqualified people or job-seekers and enabling local companies to work on TOTAL projects.

TOTAL has thus initiated a partnership approach with all the economic, employment and training, and inspection stakeholders. This innovative initiative has proved to be very encouraging, with nearly 1,200 jobs created in the Le Havre region, more than half under open-ended contracts. Local companies have recruited qualified staff and can thus meet the needs of future projects in the region. Local players in integration, employment and training are equipped with tools and a methodology to anticipate future recruitment and training requirements. Candidates can showcase their aptitudes to future recruiters with their skills passport. The Group has thus successfully completed its major projects by entrusting 70% of the services to local companies. This initiative has also proved to be sustainable, with Le Havre Chamber of Commerce and Industry steering this project, renamed *compétences totalement estuaires*, as of 2014.

**7.3.4.3. Accompanying the industrial restructuring**

A voluntary local presence convention was signed following the shutdown of operations at the Dunkirk refinery in 2011, a testimony of TOTAL's commitment in the management of the end of its operations. Indeed, by signing this convention in 2011 with the French State and the Dunkirk urban community, TOTAL committed to maintaining and creating jobs in the area. A €200 million global budget was allotted to this project. Dedicated funds have enabled the Group to provide financial assistance to various companies to set up a local presence. The refinery has

since been converted into a storage unit and training center for oil and petrochemical technical professions (Oleum) benefiting from the former refinery's technical installations. Training sessions are provided both for Group and outside companies' employees. The life-size training facilities were officially inaugurated in 2014 in the presence of a delegation from the Côte d'Opale Chamber of commerce and industry (CCI). The proven attraction of this training center, which specializes in the areas of industrial maintenance and safety, will make it possible to strengthen the Group's links with the region.

On the site of the Flanders facility, two industrial projects are ongoing: the construction of a dietary phosphate production plant in 2017 (Ecophos) and the construction of a pilot biodiesel and biokerosene production plant in which the Group has a stake (BioTfuel). The remaining activities of the Flanders facility currently represent 260 positions and 130 subcontracting jobs. Other projects are being studied to continue to develop subcontracting activities.

Likewise, a development project was officially launched for Carling in 2014. The aim of this project is to adapt the platform to ensure its future by restoring its competitiveness. TOTAL plans to invest €160 million in Carling by 2016 to develop new activities on the growing markets of hydrocarbon resins (Cray Valley) and polymers, while shutting down the steam cracker in the second half of 2015, as it is generating heavy losses. TOTAL has committed to implement this industrial conversion without terminating any employees. TOTAL will fulfill all of its contracts with its clients and will assist its partner companies concerned by the site's evolution, in particular by setting up a support fund. Furthermore, TOTAL commits to increasing the industrial platform's attractiveness by developing a shared services offer, the aim of which is to support the implantation of new economic stakeholders in the area. TOTAL thus confirms its responsibility towards the employment areas in which the Group operates as well as its commitment to maintain a strong and sustainable industrial presence in the Lorraine region. A framework agreement signed in early 2015 between the Chairman of the Lorraine region and TOTAL aims to leverage the Group's expertise and financial means in order to develop the area's industrial fabric.

**7.3.4.4. Acting as a partner for human, social and economic development**

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TOTAL's contribution to the socioeconomic and human development of the countries where the Group operates is reflected in its involvement in local development programs.

Expenditure by the Group companies in the societal area has increased regularly over the last few years: €316 million in 2012 and €357 million in 2013. In 2014, €459 million was spent on societal projects. Half of this amount corresponds to expenses which have not been managed by the Group, in Nigeria (Niger Delta Development Committee) and the Republic of the Congo (*Provisions d'Investissements Diversifiés*).

Approximately 90% of expenditure for societal projects goes to countries outside the OECD. In 2014, approximately 3,470 societal actions were identified, spread evenly among the business segments (Upstream, Refining & Chemicals and Marketing & Services).

These programs support or serve local populations by contributing to their cultural, socioeconomic and human development. These are usually communities that are directly impacted by the Group's presence or activities. These programs fall into three main categories: local economic development, human and social development, and citizenship.

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TOTAL is committed to moving away from a purely donation-based model to a partnership model. This commitment is reflected in long-term partnerships in the countries where the Group operates. Built on attentive listening, constructive dialogue and the firm determination to forge relationships of trust with the stakeholders, these partnerships with local institutions and organizations guarantee the long-term success of the projects.

In all its actions, TOTAL is cautious not to take the place of the local authorities. TOTAL teams up with NGOs specializing in social action, which have a solid field experience. They help the Group increase the effectiveness of the socioeconomic development programs it supports, in particular by encouraging it to take account of the entire life cycle of its programs.

In the Republic of the Congo, in order to support the diversification of local economies, TOTAL has bolstered its commitment to the Pointe-Noire industrial association (APNI), a platform launched in 2000 to develop small and medium-size companies. APNI offers the services of an Approved Management Center (CGA), which helps SMEs with their fiscal monitoring and accounting tasks. APNI also provides a market observatory with theme-based conferences (*e.g.*, SMEs and banking, Being a young entrepreneur, Business and energy, etc.). More than ten years after APNI was created, the Congolese State has identified the association as a stand-out organization for the emergence of a network of viable medium-size, small and very small companies in the Republic of the Congo. APNI is now extending its activities beyond Pointe Noire with offices in Brazzaville, Dolisie and Ouessou.

In the health-related field, TOTAL's Exploration & Production and Marketing & Services subsidiaries in Nigeria worked together in Lagos during the World Malaria Day in April 2014. To contribute to this event, the subsidiaries conducted a number of different activities: free diagnosis and medical treatment for residents testing positive for malaria, preventive care for pregnant women, as well as the distribution of mosquito nets and the conduct of awareness campaigns addressed to all sectors of the community (displays on buses, handout of leaflets and T-shirts, discussion groups, artistic presentations).

In Angola, TOTAL finances the skills development program for women in Porto Amboim in order to stimulate entrepreneurship. This action forms part of a partnership between TOTAL, the World Vision NGO, the Angolan women's enterprise federation (FMEA) and a local bank.

In the Democratic Republic of the Congo, the local subsidiary is working together with two local NGOs and the provincial State institute for livestock breeding and agricultural production in order to survey the current situation of agriculture and livestock breeding in the area covered by future operations. This evaluation will contribute to the definition of a strategy to support the local economy based on a participative, community-oriented approach for the three years scheduled for the operating phase.

### **Support for the development of local populations in Myanmar**

A microfinancing program (Yadana Suboo) launched in 1997 for the population living near the gas pipeline was restructured in 2006 with the aid of an international NGO specializing in microfinance, Entrepreneurs du Monde, in order to increase the efficiency of the program and boost the likelihood of it functioning on a self-supporting basis in the future. The NGO first performed two field surveys. Village Banking Committees were set up and consist of trained volunteers. An initiative has been introduced in order to make the program independent of TOTAL and transform it into a microfinance organization. Yadana Suboo received accreditation at the end of 2014.

#### **7.3.4.5. *The key to progress: education***

Among the various avenues of development supported by the Group, education is a key priority. Through its actions, the Group contributes to the development of the human capital in its host countries through the creation of shared value: value for the host countries by helping them improve the skill levels of their young people; value for TOTAL by training the future employees that the industry will need in the years to come.

TOTAL's contributions to education are intentionally framed within existing systems, adapted to local realities and always undertaken in the form of partnerships. In addition to support for primary and secondary education, this commitment is expressed through four major international programs: scholarships; partnerships with universities; teaching and research chairs; professional training.

#### **More than 10,000 scholarships, of which 150 are international**

TOTAL promotes the internationalization of its management and therefore encourages the recruitment of local personnel and their access to positions of responsibility, particularly within their local subsidiaries. To achieve this, the Group offers local and international scholarships prior to recruitment as part of its societal programs. Thus, more than 10,000 students every year are given the chance to continue their studies in their country of origin or in the world's leading universities. Since 2004, TOTAL's international scholarship program has also enabled over 1,000 students from thirty countries to study in France for qualifications (bachelor's degrees, engineering and master's degrees, MBAs and doctorates).



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In 2012, TOTAL signed a partnership agreement with the French Foreign Ministry as part of the program for co-funding international grants known as *Quai d'Orsay Entreprises*, in addition to the existing partnership. The master-level courses in French universities are open to students from ten countries.

In Nigeria, a number of scholarship programs have been set up by Total E&P Nigeria in order to improve access to education. These programs are the result of agreements signed between Total E&P Nigeria and the communities of the states of Rivers and Akwa-Ibom and provide for the funding of nearly 6,500 scholarships during the current period (2012-2016): 3,577 primary school scholarships; 2,685 secondary school scholarships; 238 for local students and 60 international higher education grants. Furthermore, as part of the so-called annual *National merit grants*, Total E&P Nigeria funded approximately 2,680 university scholarships for the academic year 2013-2014 throughout all the regions of the country.

### **More than sixty university partnerships**

In many African countries, businesses want to be able to recruit qualified local staff. TOTAL has decided to contribute to the attractions of the continent's universities by making its own technical and scientific expertise available to them. Fifteen framework agreements have been signed with the continent's leading higher education establishments such as 2IE in Burkina Faso or Wits University in South Africa.

Partnerships have also been concluded with Oil and Gas Institutes as well as with science faculties in a number of countries: IST-AC (Republic of the Congo/Cameroon), Institut du pétrole et du gaz (Gabon), University of Port-Harcourt (Nigeria), University of Agostinho Neto (Angola), University of Makerere (Uganda).

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The partnership with the Ucac-Icam Institute (formerly ISTAC) started in 2002. Every year, this allows four Congolese students to benefit from a TOTAL scholarship. Since the start of the partnership, twenty-two graduates of this scheme have been employed by TOTAL E&P Congo.

In Gabon, the Institut du pétrole et du gaz (IPG) has been training engineers through its Petroleum engineering masters since January 2014. Lasting for sixteen months, the training aims to allow Gabon's engineers to qualify for responsible positions in the oil companies that operate in the country.

The University partnership program launched in Africa in 2010 has been extended to all of Europe, Asia and the Middle East and now includes more than sixty establishments. Apart from their societal aspects, these partnerships aim to hone the talents required to achieve the Group's international ambitions.

In France, with the support of other large companies, TOTAL, ParisTech and the École Polytechnique introduced the Renewable Energy Science and Technology Master II postgraduate degree program in the fall of 2011. At the start of the 2014 academic year, fifty students from twenty different countries had enrolled for this program.

**Thirty-five teaching and research chairs**

TOTAL is particularly active in supporting research chairs in thirty-five establishments. The most recent of these were organized with the École Centrale de Lille in the field of Enterprise Architecture and with the École Centrale de Paris focusing on Purchasing of Complex Industrial Projects.

Similarly, the Group is the driving force behind a number of flagship initiatives such as the TOTAL Energy and Education Seminar which takes place in Paris every eighteen months and brings together some hundred professors representing more than forty countries. At the fifth of these meetings, academics, TOTAL managers and external experts discussed issues such as the future of energy, climate change, relationships between universities and businesses, and the impact of globalization on education and Human Resources management. Finally, the ninth TOTAL summer school took place in Paris in July 2014. This welcomed over a hundred students from thirty countries who came to discuss the challenges facing the energy sector.

**Fifty professional training programs (from school-leaving to professional masters level)**

TOTAL helps professionals in the countries in which it is active move forward in their careers. Training programs adapted to the needs of each country are organized in cooperation with local actors and allow trainees to obtain diplomas and recognized professional qualifications. The Group's entities have consequently introduced a large number of training schemes adapted to meet the specific local context.

In Africa, the Group continues to support the pilot secondary education programs launched in 2008 in the Eiffel (Angola) and Victor Augagneur (Republic of the Congo) high schools to provide free, world-class education in regions where educational opportunities are still limited. In Angola in 2014, TOTAL helped fund the operating costs of the four Eiffel high schools which have produced nearly 400 graduates since 2011, in addition to the thirty-three scholarships awarded by the subsidiary, twenty-two of which have been for universities in Angola, eight for universities in France (S<sup>t</sup> Quentin and S<sup>t</sup> Nazaire technical universities) and three in Burkina Faso. In

the Republic of the Congo, the intensive classes project at Victor Augagneur high school, which was launched in 2009, has already helped 300 students, including twenty-five holders of TOTAL post-school scholarships.

In Gabon, TOTAL funds the development of preparatory courses for prestigious universities at the Léon Mba high school.

In Senegal, a professional management degree was set up in 2013 as part of a partnership with the Centre africain pour les études supérieures en gestion (CESAG, African center for higher management studies) and benefiting from the support of Total Senegal. The aim of the degree is to consolidate existing skills and provide graduate-level training to the young managers of service stations and other professionals. Open to everyone, this degree is designed to be obtained while pursuing a professional career. This recognized diploma allows students to build on the skills acquired in other companies and responds to the need to encourage the emergence of new talent, stimulate enterprise creation and, ultimately, develop the local economic fabric. The first year proved to be a success, with all those enrolled for the initiative moving on to the second year of the course. Twenty-nine service station managers are enrolled to continue their course this year. The long-term aim is to attract all types of profile to take advantage of this training.

In Myanmar, the subsidiary supports young people who want to complete their secondary education and go to university. To this end, a team of six teachers work with between sixty and seventy students every year and enter them for their examinations. In addition, Total E&P Myanmar awards between five and ten scholarships every year to enable young people to receive financial support throughout their period of school education.

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These programs are complemented by an original internal mechanism known as Total associate teachers (*Total professeurs associés*). This is a non-profit association run by the Group's current or retired employees who teach courses free of charge in schools and universities. 293 teachers give technical and non-technical courses and lectures in oil-related fields. Since 2001, more than 155,000 students throughout the world have benefited from this expertise.

### **7.3.4.6. Facilitating access to energy**

For more than ten years, certain subsidiaries have been occasionally and independently engaged in various community development projects focusing on access to energy, in three main areas:

the electrification of rural areas that are not connected to the power grid, thanks to photovoltaic solutions. 25,000 households have been electrified in South Africa using photovoltaic kits, plus a further 25,000 in Morocco;

aid for LPG supplies through the Shesha program in South Africa, in which gas cylinders are sold to the residents of townships in order to improve their security and health; and

the use of associated gases to produce electricity in certain countries where TOTAL's Exploration & Production has operations: the project developed on OML 58 in Nigeria caters to almost 100,000 people. In Yemen, a project was carried out in cooperation with the state-owned electricity company to supply electricity generated using associated gas to neighboring communities (approximately 500,000 people served). In 2013, a study was conducted to assess the possibility of increasing the capacity. In the Republic of the

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Congo, TOTAL contributed to the funding of the extension of the electricity network in certain districts of Pointe Noire, supplying electric power to approximately 10,000 people.

These projects were usually developed in cooperation with the communities neighboring the Group's sites or as part of programs launched by the authorities in the host countries and sometimes without any goals to achieve economic viability and, therefore, sustainability.

To improve its societal performance and structure its approach, TOTAL aims to develop models that are both profitable and sustainable. For this reason, the Group has developed the Total Access to Energy program, a source of initiatives for energy solutions adapted to underprivileged populations and whose flagship project is the *Awango by Total* offer. The Group relies on feedback from experiments conducted in recent years to test these new models, with a view to developing sustainable energy access solutions that can be reproduced on a large scale.

#### **7.3.4.7. Developing the Awango by Total offer**

This offer forms part of the Group's social business approach which aims at ensuring the profitability that brings about long-term viability, while simultaneously helping improve access to energy in the host countries. This approach is part of the Group's mission and both consolidates its presence and enhances its profile.

At the United Nations Rio Conference in June 2012 (Rio+20), TOTAL committed to enabling five million people on low incomes to have access to lighting thanks to reliable photovoltaic products by the end of 2015, while offering a broad selection of services such as after-sales and a two-year guarantee for all products, finance solutions and the recycling of end-of-life products.

TOTAL was the leading sponsor of Lighting Africa, the worldwide conference on energy access organized in Dakar in November 2012 by the World Bank and the International Finance Corporation (IFC). At this conference, TOTAL launched its new *Awango by Total* brand to market a range of products and services that meet the lighting needs of people without access to electricity and also enable them to charge small appliances such as mobile phones. By the end of 2014, approximately 880,000 solar lamps had been sold in twenty-three countries since the launch of the brand: Bangladesh, Botswana, Burkina Faso, Cambodia, Cameroon, Democratic Republic of the Congo, Equatorial Guinea, Haiti, Indonesia, Kenya, Lesotho, Malawi, Myanmar, Namibia, Niger, Nigeria, Republic of the Congo, Senegal, South Africa, Swaziland, Tanzania, Uganda and Zambia. The *Awango by Total* offer is expected to be rolled out to fifteen more countries in 2015: Angola, Chad, Côte d'Ivoire, Gabon, Ghana, Guinea, Eritrea, India, Liberia, Madagascar, Mali, Mozambique, Pakistan, Philippines and Zimbabwe.

TOTAL sees the development of partnerships as the preferred way of maximizing its commitment to energy access. In 2014, TOTAL and the IFC entered into a three-year partnership to support the Lighting Global program. The main aim of this partnership is to share information about the market, changes in the industry and available products (Lighting Global tests and labels, service life, recycling, etc.). By acting as a facilitator, the IFC will make it possible to develop local partnerships directly with the relevant subsidiaries.

The distribution networks used to market solar solutions are both existing TOTAL networks and so-called "last mile" networks built with local partners with a view to bringing these solutions as close as possible to where people live. This last-mile distribution channel makes it possible to reach populations in isolated areas set apart

from the conventional distribution channels (service stations and LPG networks, lubricants). Reseller networks have been set up in order to provide energy distribution solutions in isolated areas. These resellers, whether or not they are affiliated to the TOTAL network, are trained by the teams at the subsidiaries, sometimes with assistance from our partners. Internally, Young Solar Reseller (YSR) programs have been developed and solar liaison staff have been recruited. In Cameroon, for example, twelve YSRs have been trained and have sold approximately 9,300 lamps in 2014. Externally, partnerships have been concluded with institutional bodies and associations such as Entrepreneurs du Monde or other microfinancing institutes in order to improve the coverage of the network and reach a larger number of people.

In Haiti, Marketing & Services has entered into a partnership with Entrepreneurs du Monde with the aim of reaching the most underprivileged populations by means of the last-mile distribution channel. A social business, Palmis Eneji, has been developed by Entrepreneurs du Monde through the use of microfinance mechanisms. Palmis Eneji orders solar products from TOTAL and sells them to micro-businesses that specialize in energy-related products. For its part, Entrepreneurs du Monde organizes training events for these resellers and also conducts campaigns to raise awareness of the possibilities offered by microfinance. Approximately 7,000 solar lamps have been sold in Haiti since the start of the partnership between TOTAL and Entrepreneurs du Monde.

#### **Sales of solar lamps in Uganda**

Since 2013, *Awango by Total* lamps have been on sale in the Lake Albert region thanks to the activities of some thirty resellers and to partnerships with the local SACCOs (villagers' associations) and the Caritas Arua NGO. The operational launch of this project is the fruit of close in-the-field collaboration between Exploration & Production and Marketing & Services. The subsidiary Total E&P Uganda has been able to contribute its detailed knowledge of local conditions and the target populations, in particular in the area of Block 1, whereas Marketing & Services has assumed responsibility for handling affairs at national level through

the mobilization of its network of service stations.

Total E&P Uganda employs two solar liaison officers (SLO) who coordinate a network of ten solar resellers. The SLOs work in alternation, either being present in the block or working on the solar project. They visit the communities and main cities in five districts in order to recruit and train resellers and monitor their sales results.

Total E&P Uganda also trained ten resellers in the area in which the block is located, five resellers from the finance groups and one NGO. In 2014, some 9,000 households were able to purchase lamps through the last-mile distribution channel.

**7.3.4.8. *The fight against fuel poverty and for inclusive mobility***

The fuel poverty and inclusive mobility project is the Group's contribution to the challenge posed by the need for thermal building renovation in order to reduce heating costs (in France), on the one hand, and by the desire to enhance mobility in low-income households (in France and in emerging countries), on the other. It should be noted that seven million people in France encounter mobility-related problems (20% of the working-age population) and that eleven million are considered to be exposed to fuel poverty.

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The measures undertaken in 2014 in the field of inclusive mobility enabled the pursuit of projects launched in France in 2013. TOTAL and Wimoov (formerly Voiture & Co) set up an inclusive mobility laboratory which unites fifteen actors from the public and private sectors as well as from a range of associations in order to raise public awareness of the issue of access to mobility. The laboratory's aim is to bring about a more in-depth understanding of this issue and design innovative solutions that are accessible to all. As a result, a study of mobility among senior citizens and international benchmarking of universal mobility solutions were conducted during 2014. In addition, the fifteen members of the laboratory worked on a concept for a social car-sharing scheme and examined ways to enhance the professional profile of the role of mobility advisor. The results were made public at the second edition of inclusive mobility meetings in December 2014 and are available on the Internet.

In 2014, two new mobility platforms were opened in cooperation with Wimoov: in Tarbes and Le Havre. The platforms set up in 2013 in Evreux and the southern Seine have welcomed a growing number of users (700 people) and have offered innovative services to businesses (mobility services intended to assist workers facing mobility-related difficulties).

In addition, the request for projects issued in partnership with the French Ministry for the City, Youth and Sport (Experimental Youth-Development Fund) has made it possible to identify sixteen innovative youth mobility initiatives throughout France which will receive financial and other assistance over the next two years.

Finally, TOTAL launched a research campaign in the emerging countries which has enabled the identification of three groups of mobility services with high potential and which represents a response to economic, environmental and social challenges.

#### **The Living Better program synergies between energy, education and employment**

To respond to the issue of energy poverty in 2014, the Group was represented by ninety energy efficiency ambassadors in thirty departments throughout France, thanks to two partnerships with the PACT and FACE associations, as part of an agreement signed with the French Ministry for the City, Youth and Sport concluded within the framework of the public Living Better project. These ambassadors are young people aged between 18 and 25 who have been employed as part of a governmental employment scheme for young people (*emploi d'avenir*) until the end of 2015. Their task is to identify households affected by energy poverty and give them the assistance they need at the financial, social and technical levels in order to undertake the necessary thermal renovations that will allow them to benefit, in particular, from a higher level of energy efficiency. A further aim of this project is to ensure the long-term employment of these young people on expiry of their contracts under the scheme by providing them with ongoing training and individual assistance, much of which is supplied by TOTAL. The Group's own employees act as coaches to these young people, listening constructively to their concerns and offering the high-quality advice and support needed to give them confidence and stimulate them in their integration in the professional world.

A microfinancing offer for the purchase of fuel oil is being tried out at the Compagnie Pétrolière de l'Ouest, a Group subsidiary, through a partnership with the Caisse d'Épargne. It allows households facing fuel poverty to obtain favorable financing conditions in order to refill their fuel oil tanks (payments staggered

over twelve months, interest rate of 1%) while also benefiting from assistance at the social and budgetary levels (through the Caisse d'Épargne's partner associations).

#### **7.3.5. Partnerships and philanthropy**

##### **Total Corporate Foundation / TOTAL S.A. Philanthropy**

In addition to the societal initiatives that are directly related to the Group's industrial activities, TOTAL has also been committed for many years to taking general-interest measures in the countries where it has operations. At the Head Office, the Group's philanthropic actions are essentially conducted by the Philanthropy Department of TOTAL S.A., on the one hand, and by the Total Corporate Foundation, on the other. For more than 20 years now, the Group's ambition has been to foster the development of general-interest measures, going beyond its industrial responsibility, by encouraging the convergence of expertise and innovation. At the end of 2012, TOTAL renewed its commitments to its Foundation for a further five years (2013-2017). The Foundation benefits from a five-year budget of €50 million.

Founded in 1992 in the wake of the Rio Earth Summit, the Total Foundation was initially dedicated to the environment and marine biodiversity. It is now active in four fields: marine biodiversity, culture and heritage, health, and solidarity.

With regard to **marine biodiversity**, the Foundation funds research programs undertaken to improve knowledge about and the protection and enhancement of marine and coastal species and ecosystems. In all the projects it supports, the Foundation ensures the sharing of knowledge through awareness and education campaigns. In 2014, the Foundation supported sixty-six projects (new or ongoing projects). In particular, the Foundation supported the *MedDiversa* project which aimed to study the deep-water coral reefs that are some of the most characteristic to be found in the Mediterranean since they grow in deep waters where there is

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only little sunlight. The project helped to gain a better understanding of these highly endangered species. In the light of the project results, a platform for scientific exchange was set up to develop scenarios for the future evolution of this marine diversity facing global change impacts, and thereby contribute to its preservation.

Since 2008, TOTAL has also partnered with the French Society of Sea Rescuers (SNSM). Through its funding and expertise, the Group plays a role in improving the safety of rescue operations and training volunteers. Since 2011, the Group has helped train volunteers by contributing to the creation of a special infrastructure facility in the form of a national training center. One of a kind and ideally located in Saint-Nazaire, this center has been optimized for training activities and is equipped with a state-of-the-art navigation and vessel handling simulator. Every year, more than 300 rescuers benefit from these training courses to help continuously improve safety at sea and along the coasts.

In the **culture and heritage** field, the Foundation and the Philanthropy Department partly funded fourteen exhibitions in 2014 thus promoting the cultures of the countries in which the Group operates. In 2014, the Foundation, working together with the Institut du Monde Arabe and the Louvre, contributed to showcasing Arab culture by partly funding two exhibitions, dedicated to contemporary Morocco and medieval Morocco. At the same time, it also honored China by helping fund an exhibition devoted to the Han dynasty in Paris's Guimet Museum. Firmly convinced that access to culture as of a very young age is a factor that helps individuals have confidence in themselves and respect for others, the Foundation supports numerous initiatives designed

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to instruct young people in the worlds of art and culture. In 2014, this commitment was illustrated by the organization of a workshop entitled *Learning through art, an art of learning* at the Lyon Opera House.

In the same year, the Total Foundation and the Fondation du Patrimoine (heritage foundation) renewed their partnership in France for the 2015 to 2017 period. The two partners primarily focus their activities on the preservation of the country's industrial, cultural, port and maritime, and craft heritage and participate in projects designed to further professional training and social integration. Their aim is to breathe new life into the restored sites, pass on the expertise of the building crafts of the past, and in this way to contribute to local economic and social development. These efforts are focused more specifically on the regions in which the Group is present in France. Since 2006, more than 150 projects spread across nineteen regions have received nearly €20 million in support from this project.

In the **health** field, the Group has been a partner of the Institut Pasteur since 2005. Professor F. Barré-Sinoussi, 2008 Nobel Prize laureate, is the resource person for this partnership, which focuses on the fight against infectious diseases. The Group also contributes to research programs and field actions in partnership with the Group's subsidiaries, mainly in Africa and South-East Asia. In 2014, the Group thus supported more than eleven field projects (new or ongoing), including a program in Senegal, which was set up to assess the consequences of resistance to antibiotics, in terms of mortality and morbidity, in severe bacterial infections in newborns and young children living in developing countries with a low level of economic activity. This innovative program is set to inspire others like it.

In the field of **solidarity**, the Foundation encourages Group employees to engage with the community, through support for projects championed by non-profit organizations with which they volunteer on a personal basis. In 2014, the Foundation supported sixty-eight employee projects in thirty countries.

Finally, The Group has also forged a number of major institutional partnerships in France. Since 2009, the Group has been working with the State and the ministry responsible for youth by encouraging the social and professional integration of young people. This partnership, which benefits from an overall budget of €60 million (with the experimental youth-development fund being the primary technical and financial tool at its disposal), has enabled the financing of more than 270 projects since its creation. Since 2014, TOTAL supports the *La France s'engage* voluntary initiative.

#### **7.3.6. *Contractors and suppliers***

TOTAL's activities generate hundreds of thousands of direct and indirect jobs worldwide. The Group's purchases alone represented approximately €34 billion worldwide in 2014. These constitute environmental, social and societal impact stakes that TOTAL takes into account in the principles, purchasing commitments and sustainable procurement initiatives that characterize its relations with its suppliers.

The Group's community development policy stresses the fact that commitment to community development must be shared by the Group's employees, its customers and suppliers, in particular by employing more local personnel and subcontracting more work to local businesses wherever the operating constraints of its activities allow (for example, through training and support programs intended for actors in the local economy). The Group's societal directive states that purchasing processes must be adapted as required in cases where a community development action plan has been implemented.

In 2012, a map of the CSR risks and opportunities in the Group's main purchasing categories was created in order to identify the main issues in three areas: ethics and human rights, environmental impact, and the creation of value with local communities. Pilot projects were implemented in certain purchasing categories in order to integrate the monitoring of CSR aspects into the purchasing process through concrete measures (*e.g.*, specific questionnaire focusing on the fundamental procurement principles, writing of suitable contract clauses, good practices guide for purchases from sheltered sectors). This map was updated in 2014 to reflect the main Marketing & Services and Holding purchasing categories.

##### **7.3.6.1. *Monitoring responsible practices among suppliers***

In its Code of Conduct, amended in 2014, TOTAL states that it works with its suppliers to ensure the protection of the interests of both parties on the basis of clear, fairly negotiated contractual conditions. This relationship is founded on three key principles: dialogue, professionalism and adherence to commitments.

TOTAL expects its suppliers:

- to adhere to principles equivalent to those in its own Code of Conduct, such as those set out in the fundamental principles of purchasing; and
- to agree to being audited, to be particularly attentive to the human rights-related aspects of their standards and procedures, and in particular their employees working conditions, and to ensure that their own suppliers and contractors respect equivalent principles.

The Group's fundamentals of purchasing, which were formally set out in April 2014, specify the commitments that it expects of its suppliers in the following areas: respect for human rights at work, health protection, assurance of safety and security, preservation of the environment, prevention of corruption, conflicts of interest and fraud, respect for competition law, as well as the promotion of economic and social development. As of April 2014, this document constitutes a Group



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directive and is applicable to all Group companies. TOTAL's suppliers must be made aware of the rules it contains by including them, suitably transposed if necessary, into the agreements concluded with these suppliers. These principles are available for consultation by all suppliers in both French and English on the TOTAL website, under the Suppliers heading.

Questionnaires focused on environmental and social issues are used to gather more in-depth information from suppliers about their approach to these subjects, either during pre-qualification or as part of an audit. On occasions, supplier relations are also considered from an environmental and societal perspective as part of the ethical assessments of Group subsidiaries and entities undertaken by GoodCorporation (a UK consultancy firm) in all the continents in which the Group is present.

In addition, HSE-related information forums for suppliers are organized at regular intervals, with such events being held in 2013 by the Exploration & Production entities in Russia, Indonesia and Yemen, for example.

The deployment of the anti-corruption policy and the procedure for its application in the purchasing field continued in 2014. To this end, specific questionnaires were sent to a number of suppliers and, in some cases, external audits were carried out. One new initiative launched in 2014 consisted in asking service providers present at Group sites to complete a training module similar to the Group's own anti-corruption e-learning program. This was the case, in particular, for the majority of service providers to Group

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Purchasing, and for more than 60% of the service providers in Exploration & Production. This initiative will be further extended in 2015. At the same time, Marketing & Services has sent CDs of the e-learning program to all relevant Compliance Officers so that they can then pass these on to their suppliers. Consequently, 1,500 CDs were distributed by the Marketing & Services entities in 2013 and a further 900 in 2014. Exploration & Production has also held twenty-one presentations designed to promote the Group's compliance program and these have welcomed over 700 participants from among its suppliers. In June 2014, the International Procurement Office (the Group's purchasing office in Shanghai, China) organized an anti-corruption day which was attended by approximately 150 people from approximately thirty Chinese suppliers.

In addition, pursuant to Rule 13p-1 of the Securities Exchange Act of 1934, as amended, which implemented certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, TOTAL submits to the SEC since 2014 an annual document relating to certain minerals (deemed conflict minerals<sup>(1)</sup> by the rule) sourced from the Democratic Republic of the Congo or a neighboring country. The document indicates whether TOTAL S.A. or one of its affiliates has, during the preceding calendar year, used any such minerals that are necessary for the operation or production of a manufactured product or is the object of a contract for its manufacture by the Group. Furthermore, the document states whether such minerals were sourced from the Democratic Republic of the Congo or a neighboring country. The main objective of the obligation to publish this information is to prevent the direct or indirect funding of armed groups in central Africa. For more information, refer to TOTAL's most recent publication available at <http://csr-analysts.total.com/node/565> or <http://www.sec.gov/>.

**7.3.6.2. Promoting sustainable procurement**

An interdisciplinary working group dedicated to the issue of sustainable procurement and representing the various business segments as well as the Purchasing and Sustainable Development Departments has been active since 2011. Its task is to strengthen TOTAL's policy in this area on the basis of the initiatives introduced in the various business segments. To coordinate the different actions and further extend the implementation of sustainable procurement initiatives, a dedicated position as manager of sustainable procurement has been created within the Group Purchasing Department.

The Group's buyers take part in international working groups concerned with the question of sustainable procurement. TOTAL is an active member of the IPIECA's Supply Chain Task Force. TOTAL is also represented in the French delegation to the international group that is considering the forthcoming ISO 20400 standard on Sustainable Procurement and will contribute to its formulation. The aim of the future ISO 20400 standard is to transpose the concept of social responsibility as defined in ISO 26000 to purchasing activities. Forty-one countries from every continent, as well as international organizations such as the OECD, the United Nations and the International Labor Organization, are involved in drafting this standard. TOTAL also contributed to the special session on ISO standards and responsible procurement during the Global Forum on Responsible Business Conduct organized by the OECD in June 2014.

In February 2013, the Group Purchasing Committee decided to focus on awareness-raising and training in the field of sustainable

procurement, and to develop the integration of sustainable procurement targets in the annual appraisals of buyers (initially central buyers). As a result, seven sustainable procurement training sessions were held in France in 2013, followed by four sessions in 2014, with a total of 112 Group employees receiving training. 50% of buyers responsible for a category at the head offices of the various business segments took part in this training and have been able to apply the corresponding good practices to their categories. To accompany these training events, practical tools were developed and used both before and after the learning phases. These included explanatory factsheets describing the various international instances (principles underpinning the International Labor Organization, for example), country factsheets (indicating relevant areas of local law), internal feedback, methodology sheets (total cost of ownership, lifecycle analyses, eco-labels, etc.) and, in 2014, new factsheets dealing with the environment and occupational health, as well as additional country factsheets. Special emphasis was placed on feedback.

In France, purchases from the disabled or sheltered employment sectors continued to rise with the signature of new contracts. Group purchases from these sectors enabled the achievement of an indirect employment rate of nearly 1%.

TOTAL is a member of the Pas@Pas association and provides its buyers with an online directory that can be used to identify potential suppliers and service providers (from the disabled or sheltered employment sectors) for each geographical area and category.

**7.3.6.3. Acting as a responsible partner in relation with suppliers**

In March 2014, TOTAL received the Responsible supplier relationships label for its Holding and Marketing & Services activities in France. This label, awarded by the French authorities, recognizes companies that maintain sustainable and balanced relationships with their suppliers. Eligibility for this label is reviewed every year.

The general terms and conditions of purchase, which are available to Group buyers on the intranet in both French and English, were updated in 2014 to ensure a sharper focus on balanced contractual relations.

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An interdisciplinary working group dedicated to the issue of payment terms was set up in 2014. It involves the Purchasing and Finance Departments at the French head offices of all the Group's business segments and has the aim of monitoring payment terms and improving the processing of invoices.

Regarding the support given to French small and medium-size companies, TOTAL is a member of the Pacte PME association, which facilitates dealings between these companies and their major accounts, and was positively rated by the association's Monitoring Committee in 2014. One example is the support the Group gives to the international development of small and medium-size companies, including a number of its own suppliers, through *Total Développement Régional*. Approximately a hundred such companies were thus able to take advantage of a range of programs in 2014: temporary reception of a Volunteer for International Experience (VIE) to represent them in one of the Group's subsidiaries, access to a network of contacts consisting of Group employees in overseas subsidiaries, and the organization of joint operations in countries in which the Group is present in order to gain a better understanding of the local economic context.

To contribute toward the development of good practices in business relations, TOTAL has launched an initiative to raise its

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<sup>(1)</sup> Rule 13p-1 defines *conflict minerals* to be as follows (irrespective of their geographical origin): *colombite-tantalite (coltan), cassiterite, gold, wolframite, or their derivatives, which are limited to tantalum, tin, and tungsten.*

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employees' awareness of mediation as an alternative method for resolving disputes with suppliers. Each year since 2013, the Group's Legal Department has organized an annual day to raise awareness of mediation. This day-long event brings together some fifty French and international participants including both legal experts (two thirds) and buyers (one third). It enables them to gain an understanding of mediation and its advantages, in particular in cementing long-term business relations. The event includes practical exercises (in French and English) conducted in the presence of professional mediators and helps improve the conduct of all employees who may find themselves involved in a situation of mediation. A brochure designed to increase awareness of the mediation process is also available to all buyers in both French and English via the intranet.

An e-mail address is available in both French and English on the Group website under the 'Suppliers' heading. This can be used to contact TOTAL's internal mediator. His task is to facilitate relations between the Group and its French and international suppliers. He has also overseen the introduction of actions designed to promote mediation and intended for legal staff and buyers (four sessions in 2013 and 2014). The conduct of these sessions has been entrusted to a firm of lawyers. Finally, the possibility of recourse to mediation is now also mentioned in the updated version of the general terms and conditions of purchase published in March 2014.

#### 7.3.7. Fair operating practices

##### 7.3.7.1. Preventing corruption

The oil industry must be particularly watchful with regard to the risk of corruption, in particular in the light of the scale of the investments made and the number of countries in which operations are conducted. Preventing corruption is therefore a major challenge for the Group and all its employees.

TOTAL's stance on the issue of corruption is based on clear principles, set out in 2000 in the Code of Conduct: *TOTAL rejects bribery and corruption in all forms, whether public or private, active or passive*. The Code of Conduct sets out the principles governing the actions and individual behavior of each person, both in their day-to-day decisions and in their relations with stakeholders. In it, TOTAL also reiterates its support for the OECD Guidelines and the Tenth Principle of the United Nations Global Compact, which urges businesses to work against corruption in all its forms.

The Group's commitment in this field is based on a zero tolerance principle with regard to corruption, as its General Management regularly reaffirms. This commitment takes the form of a number of actions:

- the adoption by the Executive Committee in 2009 of a corruption prevention policy and the decision to implement a dedicated compliance program;
- the establishment of a specific organization including, in particular, a Compliance and Social Responsibility Department which is responsible for rolling out the compliance program via a network of 370 Compliance Officers covering all the territories in which TOTAL operates.

The corruption prevention program is based on the very highest relevant standards including, in particular:

- A framework of internal standards that allow employees, with the support of their Compliance Officer, to identify risk situations, conduct due diligences and implement the appropriate actions. Procedures intended to provide a framework for conduct in such risk situations have been adopted in relation to the following issues: representatives dealing with public officials; procurement and sales; and gifts, entertainment, hospitality and travel, favors, donations, and contributions to social funds, philanthropic activities and sponsorships.

- Activities designed to raise awareness among all employees (including an e-learning program available in twelve languages, followed by 6,522 employees in 2014, and by 43,503 employees since its inception), more focused training activities for the most highly exposed positions (Development, Purchasing, Marketing, etc.), in-depth training for all Compliance Officers.

- The prohibition of facilitation payments.

- Incident feedback mechanisms including an ethics alert system.

- The introduction of special Compliance audits as of early 2013, at a rate of six to eight per year, to cover all the Group's activities. These audits are followed up the next year to verify that the recommendations have been implemented. A Compliance component has also been incorporated into the Group's internal audit management framework.

- The application of suitable sanctions.

In 2014, the deployment of this program was underpinned by forceful internal communications activities intended to emphasize once again the importance the Group attaches to these questions. For example, on the occasion of the International Anti-Corruption Day (December 9, 2014), an e-mail was sent to all Group employees to refresh their knowledge of the program and give them a more in-depth understanding of it. This campaign was taken up and complemented locally at the various subsidiaries.

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Under the settlements reached in 2013 between TOTAL, the Securities and Exchange Commission (SEC) and the U.S. Department of Justice (DoJ), an independent monitor was appointed to conduct a three-year review of the anti-corruption compliance and related internal control procedures implemented by the Group and to recommend improvements, when necessary. The monitor took up his duties on December 2, 2013 and his first report was submitted to the authorities at the end of July 2014. This report gives recommendations for improving the program, which TOTAL has already started to implement. In October 2014, the monitor had to relinquish his mission for health reasons, and as a result, TOTAL is in the process of selecting a new monitor.

### **7.3.7.2. *Respect for human rights***

The activities of companies can affect the human rights of the employees, partners or communities with which they interact in numerous ways. In addition to being an ethical commitment for TOTAL, adopting a proactive approach to human rights within the Group is vital for its daily business. This approach helps to establish and maintain successful relationships with all stakeholders.

The Group's Code of Conduct was revised in June 2014 in order to reinforce TOTAL's commitments in terms of its respect for human rights. TOTAL's adherence to the principles set out in international standards, including the new United Nations' guiding principles on business and human rights which were adopted in 2011 and the Voluntary Principles on Security and Human Rights (VPSHR), is indicated in the Code of Conduct. In the event of any discrepancy between legal provisions and the Code of Conduct, the more exacting standard is applied. A 'Speaking Up' section has also been added and clearly indicates that anyone in TOTAL can benefit from the advice of the Ethics Committee at any time by writing to the [ethique@total.com](mailto:ethique@total.com) address.

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Awareness of human rights is now an integral part of the principles underpinning the Group's actions in the same way as all the H3SE standards (health, safety, security, societal, environment). First of all, the Group makes sure that the rights of its employees are protected. In particular, it prohibits any form of discrimination against them, including due to sexual orientation or identity. Likewise, it demands that they themselves be respectful of human rights. With regard to other stakeholders, TOTAL expects its suppliers to respect equivalent standards and to be particularly attentive to the working conditions of their employees. In its dealings with the host countries in which the Group operates, TOTAL respects their sovereignty while reserving the right to express its convictions concerning the importance of respecting human rights in subjects related to its field of operation. Since its activities have an impact on local communities, TOTAL respects their rights by foreseeing and limiting the impacts on their way of life and remediating these impacts wherever necessary.

Moreover, in 2013 the Group developed a strategic human rights roadmap which integrates respect for human rights into its various risk and impact management systems. The Executive Committee validated this roadmap on the occasion of the visit by Professor John Ruggie, former special United Nations Representative for Business and Human Rights. This roadmap has been implemented in various Group entities (Legal, Ethics, Sustainable Development Departments).

A new legal unit called "ethics and human rights" was set up in 2014 within the Group's Compliance and Social Responsibility Department in order to help operatives address these issues.

**Support for international human rights initiatives**

The Group is actively involved in numerous initiatives and working groups on human rights that bring together various stakeholders. As part of the Global Compact, TOTAL takes part in the Human Rights Working Group. Created in 2010, Global Compact LEAD (Initiative for Sustainable Leadership) has fifty-four members, among which TOTAL is the first French company to participate. The Group is also a founding member of the Global Business Initiative on Human Rights and takes part actively in the work of IPIECA, through the following working groups: Social Responsibility Working Group, Human Rights Task Force, and Responsible Security Workshop. Moreover, after having implemented the recommendations of the Voluntary Principles on Security and Human Rights (VPSHR) for a number of years, TOTAL joined this initiative in March 2012. Lastly, since 2012, TOTAL has taken part in the activities of the NGO Shift, created by Professor John Ruggie after his term of office with the UN.

In order to spell out its human rights position and initiatives, TOTAL created a Human Rights Coordination Committee in 2005. This is managed by the Ethics Committee Chairman in cooperation with the Group's human rights experts. This discussion and decision-making forum, which meets three or four times a year, includes representatives of the Ethics, Human Resources, Public Relations, Legal, Finance, Security, Purchasing and Sustainable Development Departments. Its aim is to coordinate the activities relating to the respect for human rights undertaken internally and externally by the various Group entities. During these meetings, participants share their feedback and information on various subjects, including ethical assessments, internal or external tools or procedures associated with human rights, and civil society projects.

**Implementation of due diligence actions**

TOTAL's human rights approach is based on several pillars:

*Written commitments:* in accordance with its Code of Conduct, the Group has adopted principles appropriate to the operations and countries where it works, some of which are set out in the section to find out more of the human rights internal guide published in 2011 in English, French, Spanish and Chinese.

*Awareness-raising activities:* to ensure that its human rights principles are disseminated in-house, TOTAL raises employee awareness via corporate communications channels such as the Ethics and Security intranet site, and through specific training programs tailored to the various challenges encountered in the field. These programs are listed in the TOTAL University Ethical, Environmental and Social Responsibility brochure. For example, as part of the Group's human rights roadmap, a new training program called "Responsible leadership for a sustainable business" targeting management personnel was created in 2013 by Total University and tested in 2014. In collaboration with the Shift NGO, the Group has also developed a series of four awareness-raising videos on the Group's human rights standards. These videos, which were made available on the Group's Intranet to mark the UN's Human Rights Day, focus on three issues that have been identified as crucial for the Group: responsible security; the prevention of social impacts on local communities; and working conditions both for its own employees and within its supply chain. Furthermore, in one of these videos, Mr. de Margerie and Professor John Ruggie discuss TOTAL's roadmap on human rights, as well as the importance of complying with the Group's human rights standards in daily activities. Actions undertaken to raise awareness among certain stakeholders that are external to the Group have also been undertaken. For example, the Group's security providers attend special training sessions concerning the Voluntary Principles relating to safety and human rights in risk areas.

*Consulting and advisory structures:* the Ethics Committee and the Compliance and Social Responsibility Department are available to advise employees and coordinate efforts to promote human rights. The Ethics Committee is a central, independent structure that represents all of TOTAL's business units. Its role is to listen to, support and advise both employees and people outside the Group can refer matters to the Committee. The Committee maintains complete confidentiality with regard to referrals; this can only be lifted with the agreement of the person in question. At the local level, the subsidiaries of the

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Exploration & Production division have introduced mechanisms for processing grievances raised by local communities. Exploration & Production has produced a guide in the form of a manual on this subject which is being transcribed within the Marketing & Services entities.

*Ethical assessments and reporting:* tools are used to regularly assess the subsidiaries' human rights practices and the risks they may have to face. They analyze the local consequences of projects (societal audits in which local communities in certain countries are questioned on their perception of the impact of the Group's activities on their everyday lives) or check that the subsidiaries' ethical practices meet the Group's standards. Most of these tools are designed to prevent or limit the ethical risks or impacts related to the Group's activities. Some of these tools are deployed with the assistance of independent experts. The Group also entrusts the conduct of some ten or so ethics-related assessments per year to GoodCorporation (GoodCorp). To date, more than a hundred subsidiaries exposed to ethical risks have been assessed since 2002. For its on-site activities, GoodCorp makes use of a reference catalogue containing approximately

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90 questions relating to human rights, labor law, respect for the provisions governing fair competition and other ethics-related subjects. The aim of this process, during which numerous internal and external stakeholders are interviewed by GoodCorp over a period of several weeks, is to make sure that the assessed activities are consistent with the Group's standards. GoodCorp then issues a final report identifying points requiring improvement and observed good practices. The entity is then given several months to correct any problems that have been identified, after which a follow-up inspection is performed by GoodCorp. In some cases, the Danish Institute for Human Rights, a Danish public non-profit organization, partners with GoodCorp in its activities. Other non-profit partner organizations such as the CDA Corporate Engagement Project also contribute by evaluating the social impact of certain subsidiaries on nearby local communities. CDA's reports are published online on their website. At the end of 2013, the Group also commissioned the British NGO International Alert to conduct an impact study focusing on human rights in the Democratic Republic of the Congo. Even though the Group has not yet conducted any operations nor had any subsidiaries in the area in question, more than 300 people – a quarter of whom were women – were consulted by the NGO. The aim of this study was to enable the Group to better understand the country's complex dynamics in order to limit any negative impact and maximize any positive impact the Group's exploration activities may have on this sensitive environment. The NGO's report is available online.

#### **7.4. Other social, community development and environmental information**

##### **7.4.1. *TOTAL and shale gas and oil***

TOTAL has stakes either as an operator or as a partner in several shale gas and oil exploration and production licenses in Russia, the United Kingdom, Denmark, the United States, Argentina, Uruguay, China and Australia.

In every country where the Group operates, its Safety Health Environment Quality Charter and its Societal directive, both of which are backed by local legislation, provide a framework for its operations. The Group has a risk management system that incorporates impact studies related to the environment, health, safety and social acceptability. These studies are carried out very early on in the project schedule (as early as the exploration phase) and entail a level of analysis that is equal to or exceeds local regulatory requirements.

The environmental and societal challenges associated with shale gas and oil development include reducing the quantity and impact of chemical additives, optimizing water management and reducing the visual impact and disturbance caused by the operations.

In projects operated by the Group, TOTAL's teams (operational, HSE, societal, quality and R&D) make every effort to find appropriate technological solutions.

In Europe, where TOTAL has stakes in Denmark as an operator, as well as stakes in the UK, the Group focuses its efforts on listening to the various stakeholders to ensure that the operations are carried out under the best possible conditions. TOTAL has also made a commitment to be transparent, whether by providing information about projects, such as via a Group website dedicated to Danish licenses, or by supporting the initiative of the Oil and Gas Producers Association, which publishes the composition of fracturing fluids on the Internet.

In Argentina, TOTAL has stakes either as an operator or partner in several shale gas licenses in the Neuquén basin. Although the large-scale development phase has not yet begun, proposed initiatives for minimizing the impact of the shale gas and oil operations are routinely and regularly assessed (such as using a mobile unit for processing and reusing flowback water or recycling a portion of the crushed rock, after it leaves the drilling platform, for reuse at another site to reduce the total amount of rock extracted from quarries, etc.). TOTAL also takes part in numerous regional committees to provide information to a wide range of stakeholders, including the IAPG (Instituto Argentino del Petróleo y Gas), an institute recognized in Argentina for its high technical standards whose goal is to ensure that best practices are adopted by industry players and included in the local regulatory framework. In addition, the Group is currently involved in a program that assesses the contribution of its operations to local socioeconomic development.

##### **7.4.2. *TOTAL and oil sands***

TOTAL has stakes in several Canadian oil sands projects. Changes in the economic environment have prompted the Group to adapt the development plan related to these projects, including suspending the Joslyn North Mine and Northern Lights projects.

For the projects still under development, Surmont (50%) and Fort Hills (39.2%), which are not operated by the Group, TOTAL emphasizes an awareness by the operator of environmental issues, and particularly water impacts, remediation of the affected soil and ecosystems, and GHG emissions. The Group ensures that the technologies used minimize *in situ* the environmental impact. For phase 2 of the Surmont project, which is scheduled to begin production in 2015, the option chosen is expected to allow water to be withdrawn mainly from saline aquifers and not from freshwater aquifers or rivers in an effort to optimize water use and recycling.

For several years, TOTAL has been actively involved in the various collaborative research initiatives undertaken by the Canadian industry in these areas. In particular, TOTAL is one of the founding members of Canadian Oil Sands Innovation Alliance (COSIA), an initiative launched in 2012 by fourteen producers in Canada to improve the environmental performance of Canadian oil sands by promoting collaboration and innovation.



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TOTAL is mindful of its responsibility to its stakeholders, with whom it builds a long-term relationship by maintaining a dialogue with the surrounding communities.

For more information, refer to [B. Business Overview](#) 2.1.7.2. North America , above.

### **7.4.3. *TOTAL and the Arctic***

The Group is involved in various projects, including in Norway (Snøhvit, active exploration in the Barents Sea) and in Russia (Kharyaga, Yamal LNG, Termokarstovoye, Bazhenov).

According to a survey published by the United States Geological Survey (USGS) in 2012, the Arctic might hold 13% of the world's undiscovered conventional oil resources and 30% of its undiscovered gas resources. These substantial resources could help to meet the growing demand for energy in the coming decades.

For exploration and production in the Arctic, major challenges must be overcome given the difficult weather and oceanographic conditions, logistical constraints and the nature of the technologies to be deployed in a particularly sensitive ecosystem.

TOTAL currently does not conduct any exploration activities in oil fields under the ice cap.

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At the same time, TOTAL is involved in research related to specific issues in the Arctic, in particular through its *Grands froids* (extreme cold) R&D program. TOTAL is also involved in the Joint Industry Program, which brings together oil companies and scientific organizations to study ways of preventing, detecting and responding to accidental pollution by hydrocarbons.

**7.4.4. TOTAL and Western Sahara**

Off the coast of Western Sahara, in December 2011 Morocco awarded a reconnaissance contract for the Anzarane Offshore Block to the Office National Marocain des Hydrocarbures et des Mines (ONHYM - National Moroccan Bureau of Petroleum and Mines) and Total E&P Maroc. This contract was extended until December 2015 in order to assess the oil and gas potential of this large area of 100,000 km<sup>2</sup>.

A reconnaissance contract is not an E&P agreement in that it is limited to geological and geophysical works.

According to independent experts that TOTAL consulted in this regard, the aforementioned geological and geographic works conducted in this area are not legally in breach of international law or the United Nations Charter.

In terms of ethics, in December 2013 Total E&P Maroc and the ONHYM signed two documents: the first was a public joint declaration in which the Moroccan party emphasized its commitment to comply with the principles of the Charter of the United Nations, in particular with regard to consulting local communities and ensuring that they benefit from exploration and production of natural resources. The second was a memorandum of understanding that outlines the action principles related to social responsibility for the exploration period and for any subsequent phases.

In Western Sahara where the Anzarane Offshore Block is located, and wherever it operates, TOTAL complies, within its sphere of activities, with the applicable international laws and standards mentioned in the Group's Code of Conduct, particularly those related to human rights.

**7.5. Reporting scopes and method for social and environmental information****7.5.1. Reporting guidance**

The Group's reporting is based:

for social indicators, on a practical handbook titled *Corporate Social Reporting Protocol and Method* ;

for industrial safety indicators, on the *Corporate Guidance on Event and Statistical Reporting*; and

for environmental indicators, on a Group reporting procedure, together with segment-specific instructions.

These documents are available to all TOTAL companies. Abridged versions of the environmental and social reporting handbooks can be downloaded from the TOTAL website under the *publications* heading. The complete versions can be consulted at Corporate headquarters, in the relevant departments.

**7.5.2. Scopes**

In 2014, environmental reporting covered all activities, sites and industrial assets in which TOTAL, directly or through one of its subsidiaries, is the operator (*i.e.*, either operates or contractually manages the operations) as of December 31, 2014. Greenhouse gas (GHG) emissions based on the Group's equity interest are the only data which are published for the equity interest scope. This scope, which is different from the operated domain mentioned above, includes all the assets in which TOTAL has a

financial interest with rights over all or part of the production (financial interest without operational responsibility nor rights on all or part of the production do not lead to the incorporation of GHG emissions).

**Safety reporting** covers all TOTAL employees, employees of contractors working at Group-operated sites and employees of transport companies under long-term contracts. Each site submits its safety reporting to the relevant business unit. The data is then consolidated at the business level and every month at the Group level. In 2014, the Group safety reporting scope covered 539 million hours worked, equivalent to approximately 300,000 people.

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**Reporting on occupational illnesses** covers only the Group's personnel and illnesses reported according to the regulations applicable in the country of operation of each entity. Each site sends its reporting on occupational illnesses to the operational entity it reports to. Statistics are consolidated at business segment level and reported to the Group once a year.

**Social reporting** is based on two resources – the Global Workforce Analysis and the Worldwide Human Resources Survey.

The **Global Workforce Analysis** is conducted twice a year, on June 30 and December 31, in all fully consolidated companies at least 50% owned and consolidated by the global integration method. The survey mainly covers worldwide workforces, hiring under permanent and fixed-term contracts (non-French equivalents of *contrats à durée déterminée ou indéterminée*) as well as employee turnover. This survey produces a breakdown of the workforce by gender, professional category (managers and other employees), age and nationality.

The **Worldwide Human Resources Survey** is an annual survey which comprises approximately 100 indicators in addition to those used in the Global Workforce Analysis. The indicators are selected in cooperation with the business segments and cover major components of the Group Human Resources policy, such as mobility, career management, training, employee dialogue, Code of Conduct application, health, compensation, retirement benefits and insurance. The survey covers a representative sample of the consolidated scope. The data published in this Registration Document are extracted from the most recent survey, carried out in December 2014 and January 2015; 147 companies, operating in fifty-nine countries, representing 91% of the consolidated Group workforce (90,949 employees) replied to the survey. Both surveys are conducted using the same information system introduced at TOTAL at the end of 2003, and undergo similar internal control and validation processes.

### **7.5.2.1. Consolidation method**

For the scopes defined above, safety indicators and social data are fully consolidated. Environmental indicators consolidate 100% of the emissions of Group operated sites for the operated indicators. GHG emissions are also published on an equity interest basis, *i.e.*, by consolidating the Group share of the emissions of all assets in which the Group has a financial interest or rights to production.

### **7.5.2.2. Changes in scope**

For social and environmental indicators, the indicators are calculated on the basis of the perimeter of the Group as of December 31, 2014. For safety indicators, acquisitions are taken into account as soon as possible and at the latest on January 1 of the following year, and divestments are taken into account at the end of the quarter preceding their effective date of implementation. Restatement of previous years published data, unless there is a specific statement, is now limited to changes of methodology.

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#### 7.5.3. *Principles*

##### 7.5.3.1. *Indicator selection and relevance*

The data published in this annual report are intended to inform stakeholders about TOTAL's Corporate Social Responsibility performance for the year in question. The environmental indicators include Group performance indicators in line with the IPIECA reporting guidance, updated in 2010. The indicators have been selected in order to monitor:

TOTAL's commitments and policies, and their effects in the safety, environment, social, etc., domains;  
performance relative to TOTAL's main challenges and impacts; and  
information required by legislative and regulatory obligations (article L. 225-102-1 of the French Commercial Law).

##### 7.5.3.2. *Terminology used in social reporting*

Outside of France, management staff refers to any employee whose job level is the equivalent of 300 or more Hay points. Permanent contracts correspond to *contrats à durée indéterminée (CDI)* and fixed-term contracts to *contrats à durée déterminée (CDD)*, according to the terminology used in the Group's social reporting.

**Managed scope:** all subsidiaries in which one or more Group companies own a stake of 50% or more, *i.e.*, 496 companies in 125 countries as of December 31, 2014.

**Consolidated scope:** all companies fully consolidated by the global integration method, *i.e.*, 350 companies in 104 countries as of December 31, 2014.

**Employees present:** employees present are employees on the payroll of the consolidated scope, less employees who are not present, *i.e.*, persons who are under suspended contract (sabbatical, business development leave, etc.), absent on long-term sick leave (more than six months), assigned to a company outside the Group, etc.

##### 7.5.3.3. *Methods*

The methods may be adjusted to reflect the diversity of TOTAL's activities, recent integration of subsidiaries, lack of regulations or standardized international definitions, practical procedures for collecting data, or changes in methods.

##### 7.5.3.4. *Consolidation and internal controls*

Environmental, social and industrial safety data are consolidated and checked by each business unit and business segment, and then at Group level. Data pertaining to certain specific indicators are calculated directly by the business segments. These processes undergo regular internal audits.

#### 7.5.4. *Details of certain indicators*

##### 7.5.4.1. *Industrial safety definitions and indicators*

**TRIR** (Total Recordable Injury Rate): number of recorded injuries per million hours worked.

**LTIR** (Lost Time Injury Rate): number of lost time injuries per million hours worked.

**SIR** (Severity Injury Rate): average number of days lost per lost time injury.

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**Employees of external contractors:** any employee of a service provider working at a Group-operated site or assigned by a transport company under a long-term contract.

**Tier 1:** indicator of the number of loss of primary containment as defined in standards API 754 (for downstream) and IOGP 456 (for upstream).

**Near miss:** event which, under slightly different circumstances, could have resulted in a serious accident. The term *potential severity* is used for near misses. Incidents and near misses are assessed in terms of actual or potential severity based on a scale that consists of six levels. Events with an actual or potential severity level of four or more are considered serious.

### 7.5.4.2. *Environmental indicators*

**Personnel in charge of the environment:** means the persons in charge of the environment in the HSE departments of the sites and of the functional entities and, if any, the staff of research centers working on this theme, the laboratories of sites (for environmental analysis), effluent liquid and gaseous emission processing departments, the department responsible for the management (and possibly internal processing) of waste, and the departments and entities charged with remediation of sites.

**ISO sites:** sites covered by an ISO 14001 certificate that is valid, some certificates may cover several sites.

**Fresh water:** water with salinity below 1.5 g/l.

**Hydrocarbon spills:** spills with a volume greater than 1 barrel (159 liters) are counted. These are accidental spills of which at least part of the volume spilled reaches the natural environment (including non-waterproof ground). Spills resulting from sabotage or malicious acts are included. Spills which remain in a confined watertight containment system are excluded.

**Waste:** the contaminated soil excavated and removed from active sites to be treated externally is counted as waste. However, drilling debris, mining cuttings or soil polluted in inactive sites are not counted as waste.

**GHG:** the six gases of the Kyoto protocol, which are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>, with their respective GWP (Global Warming Potential) as described in the 2007 GIEC report.

**GHG based on the Group's equity interest:** GHG emissions of non-significant assets are excluded, *i.e.*, assets in which the Group's equity interest is less than 10% and for which the Group share of emissions are less than 50 kt CO<sub>2</sub>-eq/year. TOTAL relies on the information provided by its partners who operate its non-operated assets. In cases where this information is not available, estimates are made based on past data, budget data or by *pro rata* with similar assets.

**Material loss rate:** this rate corresponds to the net sum of materials extracted or consumed which are neither auto-consumed energy nor sold to a client, divided by the sum of transformed material. In the case of Exploration & Production, this rate is calculated by the ratio of the sum of identified losses to the sum of extracted materials. Petrochemicals considers that this new indicator is not yet sufficiently reliable for its activities to be published.

**Oil spill preparedness:**

An oil spill scenario is deemed important as soon as its consequences are on a small scale and with limited impacts on the environment (orders of magnitude of several hundred meters of beaches impacted, and several tons of hydrocarbons, typically);

An oil spill preparedness plan is deemed operational if it describes the alert mechanisms, if it is based on pollution scenarios that stem from risk analyses and if it describes mitigation strategies that are adapted to each scenario, if it defines the technical and organizational

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means, internal and external, to be implemented and, lastly, if it mentions elements to be taken into account to implement a follow-up of the environmental impacts of the pollution; and  
 Oil spill preparedness exercise: only exercises conducted on the basis of one of the scenarios identified in the oil spill preparedness plan and which are played out until the stage of equipment deployment are included for this indicator.

**8. Cuba, Iran and Syria**

Provided in this section is certain information concerning TOTAL's activities related to Iran in 2014 that is required to be disclosed pursuant to Section 13(r) of the U.S. Exchange Act. In addition, information for 2014 is provided concerning the various types of payments made by Group affiliates to the government of any country identified by the United States as a state sponsor of terrorism (currently, Cuba, Iran, Syria and Sudan<sup>(1)</sup>) or any entity controlled by those governments. For more information on certain U.S. and EU restrictions relevant to TOTAL in these jurisdictions, see Item 3 C. Risk Factors, above.

**1.1. Cuba**

In 2014, Marketing & Services had limited marketing activities for the sale of specialty products to entities in Cuba and paid taxes of approximately \$256,000 on such activities. Hutchinson, a Refining & Chemicals affiliate, had limited sales in Cuba of transmission belts for agricultural machinery via a government-controlled intermediary that received a commission of approximately €58,000 (approximately \$63,000<sup>(2)</sup>). In addition, Trading & Shipping purchased hydrocarbons pursuant to spot contracts from a state-controlled entity for approximately €124 million (approximately \$134 million) and paid approximately €7 million (approximately \$8 million) to this entity via put option transactions with this entity.

**1.2. Iran**

Section 13(r) of the U.S. Exchange Act requires the Company to disclose whether it or any of its affiliates engaged during the 2014 calendar year in certain Iran-related activities. While neither TOTAL S.A. nor any of its affiliates have engaged in any activity that would be required to be disclosed pursuant to subparagraphs (A), (B) or (C) of Section 13(r)(1), affiliates of the Company may be deemed to have engaged in certain transactions or dealings with the government of Iran that would require disclosure pursuant to Section 13(r)(1)(D), as discussed below.

*Upstream*

The Group has no exploration and production activities in Iran and maintains a local office in Iran solely for non-operational functions. Some payments are yet to be reimbursed to the Group with respect to past expenditures and remuneration under buyback contracts entered into between 1997 and 1999 with the National Iranian Oil Company (NIOC) for the development of the South Pars 2&3 and Dorood fields. With respect to these contracts, development operations were completed in 2010 and the Group is no longer involved in the operation of these fields. In 2014, Total E&P Iran (100%), Elf Petroleum Iran (99.8%), Total Sirri (100%) and Total South Pars (99.8%) collectively made payments of approximately €0.3 million (approximately \$0.3 million) to (i) the Iranian administration for taxes and social security contributions concerning the personnel of the aforementioned local office and residual buyback contract-related obligations, and (ii) Iranian public entities for payments with respect to the maintenance of the aforementioned local office (e.g., utilities, telecommunications). TOTAL expects similar payments to be made by these affiliates in

2015. Neither revenues nor profits were recognized from the aforementioned activities in 2014.

Total E&P UK Limited (TEP UK), a wholly-owned affiliate of TOTAL, holds a 43.25% interest in a joint venture at the Bruce field in the UK with BP (37.5%, operator), BHP Billiton Petroleum Great Britain Ltd (16%) and Marubeni Oil & Gas (North Sea) Limited (3.75%). This joint venture and TEP UK's Frigg UK Association pipeline (100%) are parties to agreements (the Rhum Agreements) governing certain transportation, processing and operation services provided to a joint venture at the Rhum field in the UK that is co-owned by BP (50%, operator) and the Iranian Oil Company UK Ltd (IOC), a subsidiary of NIOC (50%). To TOTAL's knowledge, provision of all services under the Rhum Agreements was initially suspended in November 2010, when the Rhum field stopped production following the adoption of EU sanctions, other than critical safety-related services (i.e. monitoring and marine inspection of the Rhum facilities), which were permitted by EU sanctions regulations. On October 22, 2013, the UK government notified IOC of its decision to apply a temporary management scheme to IOC's interest in the Rhum field within the meaning of UK Regulations 3 and 5 of the Hydrocarbons (Temporary Management Scheme) Regulations 2013 (the Hydrocarbons Regulations). Since that date all correspondence in respect of the IOC's interest in the Rhum Agreements has been with the UK government in its capacity as temporary manager of IOC's interests and TEP UK has had no contact with IOC in 2014 regarding the Rhum Agreements. On December 6, 2013,

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the UK government authorized TEP UK, among others, under Article 43a of EU Regulation 267/2012, as amended by 1263/2012 and under Regulation 9 of the Hydrocarbons Regulations, to carry out activities in relation to the operation and production of the Rhum field. In addition, on September 4, 2013, the U.S. Treasury Department issued a license to BP authorizing BP and certain others to engage in various activities relating to the operation and production of the Rhum field. Following receipt of all necessary authorizations, the Rhum field resumed production on October 26, 2014 with IOC's interest in the Rhum field and the Rhum Agreements subject to the UK government's temporary management pursuant to the Hydrocarbons Regulations. Services have been provided by TEP UK under the Rhum Agreements since that date and TEP UK has received tariff income from BP and the UK government (in its capacity as temporary manager of IOC's interest in the Rhum field) in accordance with the terms of the Rhum Agreements. In 2014, these activities generated for TEP UK gross revenue of approximately £1.7 million (approximately \$2.5 million) and net profit of approximately £670,000 (approximately \$1 million). TEP UK intends to continue such activities so long as they continue to be permissible under UK and EU law and not be in breach of applicable international economic sanctions.

### *Downstream*

The Group does not purchase Iranian hydrocarbons or own or operate any refineries or chemicals plants in Iran.

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*(1) Since the independence of the Republic of South Sudan on July 9, 2011, TOTAL is no longer present in Sudan.*

*(2) All non-USD currencies presented in this section 8. Cuba, Iran and Syria were converted to USD using the prevailing exchange rates available on March 20, 2015.*

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Until December 2012, at which time it sold its entire interest, the Group held a 50% interest in the lubricants retail company Beh Total (now named Beh Tam) along with Behran Oil (50%), a company controlled by entities with ties to the government of Iran. As part of the sale of the Group's interest in Beh Tam, TOTAL S.A. agreed to license the trademark Total to Beh Tam for an initial 3-year period for the sale by Beh Tam of lubricants to domestic consumers in Iran. Total E&P Iran (TEPI), a wholly-owned affiliate of TOTAL S.A., received, on behalf of TOTAL S.A., royalty payments of approximately IRR 24 billion (approximately \$86 million) from Beh Tam in 2014 for such license. These payments were based on Beh Tam's sales of lubricants during the previous calendar year. Representatives of the Group and Beh Tam met several times in 2014 to discuss the local lubricants market and further discussions are expected to take place in the future. Similar payments are expected to be received from Beh Tam in 2015.

Total Marketing Middle East FZE (TMME), a wholly-owned affiliate of the Group, sold lubricants to Beh Tam in 2014. The sale in 2014 of approximately 4,805 t of lubricants generated gross revenue of approximately AED 47.6 million (approximately \$13 million) and a net profit of approximately AED 9.3 million (approximately \$2.5 million). TMME expects to continue such activity in 2015.

Total Ethiopia Ltd (TEL), an Ethiopian company held 99.99% by the Group and the rest by three Group employees, paid approximately ETB 154,000 (approximately \$7,500) in 2014 to Merific Iran Gas Co, an Ethiopian company majority-owned by entities affiliated with the government of Iran, pursuant to a contract for the transport and storage of LPG in Ethiopia purchased by TEL from international markets. TEL stopped pursuing this activity in May 2014.

Total Deutschland GmbH (Total Deutschland), a German company wholly-owned by the Group, provided in 2014 fuel payment cards to Iranian diplomatic missions in Germany for use in the Group's service stations. In 2014, these activities generated gross revenue of approximately €2,350 (approximately \$2,540) and a net profit of less than €50 (less than \$54). Total Deutschland terminated these arrangements effective April 30, 2014.

Total Marketing Services (TMS), a French company wholly-owned by TOTAL S.A. and six Group employees, provided in 2014 fuel payment cards to the Iranian embassy in France for use in the Group's service stations. In 2014, these activities generated gross revenues of approximately €30,200 (approximately \$32,700) and net income of approximately €1,100 (approximately \$1,200). TMS expects to continue this activity in 2015.

Caldeo, a French company wholly-owned by TMS, sold in 2014 domestic heating oil to the Iranian embassy in France, which generated gross revenues of approximately €6,300 (approximately \$6,800) and net income of approximately €300 (approximately \$325). Caldeo expects to continue this activity in 2015.

### **1.3. Syria**

Since early December 2011, TOTAL has ceased its activities that contribute to oil and gas production in Syria and maintains a local office solely for non-operational functions. In 2014, TOTAL made payments of approximately €0.35 million (approximately \$0.38 million) to Syrian government agencies in the form of taxes and contributions for public services rendered in relation to the maintenance of the aforementioned office and its personnel. In late 2014, the Group initiated a downsizing of its Damascus office and reduced its staff to a few employees.

## **9. Organizational Structure**

TOTAL S.A. is the parent company of the TOTAL Group. As of December 31, 2014, there were 903 consolidated companies, of which 818 were fully consolidated and 85 were accounted for under the equity method.

TOTAL S.A.'s scope of consolidation includes at least all companies in which the Company holds a direct or indirect interest, the book value of which on that date is at least equal to

10% of the amount of TOTAL S.A.'s equity or of the consolidated net assets of the Group, or which has generated at least 10% of the TOTAL S.A.'s net income or of the Group's consolidated net income during the last year.

An exhaustive list of the companies consolidated by TOTAL S.A. is provided in a summary table in Note 35 to the Consolidated Financial Statements.



**10. Property, Plant and Equipment**

TOTAL has freehold and leasehold interests in numerous countries throughout the world, none of which is material to TOTAL. See

B. Business Overview 2. Upstream segment for a description of TOTAL's reserves and sources of oil and gas.

**ITEM 4A. UNRESOLVED STAFF COMMENTS**

None.

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Items 5 - Overview

**ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

*This section is the Company's analysis of its financial performance and of significant trends that may affect its future performance. It should be read in conjunction with the Consolidated Financial Statements included elsewhere in this Annual Report. The Consolidated Financial Statements are prepared in accordance with IFRS as issued by the IASB and IFRS as adopted by the EU.*

*This section contains forward-looking statements which are subject to risks and uncertainties. For a list of important factors*

*that could cause actual results to differ materially from those expressed in the forward-looking statements, see Cautionary Statement Concerning Forward-Looking Statements on page iii.*

*Effective January 1, 2014, TOTAL changed the presentation currency of the Group's Consolidated Financial Statements from the Euro to the US Dollar and applied IFRIC 21. Comparative 2013 and 2012 information has been restated. For more information, see the Introduction to the Consolidated Financial Statements.*

**OVERVIEW**

TOTAL's results are affected by a variety of factors, including changes in crude oil and natural gas prices as well as refining and marketing margins, which are all generally expressed in dollars, and changes in exchange rates, particularly the value of the euro compared to the dollar. Higher crude oil and natural gas prices generally have a positive effect on the income of TOTAL, since its Upstream oil and gas business benefits from the resulting increase in revenues realized from production. Lower crude oil and natural gas prices generally have a corresponding negative effect. The effect of changes in crude oil prices on TOTAL's Refining & Chemicals and Marketing & Services activities depends upon the speed at which the prices of refined petroleum products adjust to reflect such changes. TOTAL's results are also significantly affected by the costs of its activities, in particular those related to exploration and production, and by the outcome of its strategic decisions with respect to cost reduction efforts. In addition, TOTAL's results are affected by general economic and political conditions and changes in governmental laws and regulations, as well as by the impact of decisions by OPEC on production levels. For more information, see Item 3 C. Risk Factors and Item 4 C. Other Matters.

The year 2014 was marked by the sharp decline in oil prices in the second half, which continued in early 2015. Brent oil prices ended the year 2014 below \$60/b<sup>(1)</sup> after a long period of stability at around \$110/b, due to a substantial increase in oil supply while growth in demand was lower than expected. At the same time, the euro was driven down against the dollar by the September 2014 FED decision in the United States and the anticipation of the decisions of the European Central Bank that was eventually taken in January 2015.

Global oil demand increased by +0.6 Mb/d<sup>(1)</sup> compared with +1.1 Mb/d in 2013, which was lower than anticipated primarily due to a slowdown in Chinese growth. Global oil supply rose significantly in 2014 by +1.9 Mb/d after a moderate increase of +0.4 Mb/d in 2013. Growth in production was mainly due to a dramatic increase of unconventional production in North America. Brent oil prices thus averaged \$99.0/b in 2014 compared with \$108.7/b in 2013.

In Asia, where the gas price is indexed to oil, prices dropped steeply in the second half of the year and the annual price averaged \$14/Mbtu, compared with \$16/Mbtu in 2013. Gas prices in Europe were affected by a very mild winter in 2013-2014 and fell by more than 20% to \$8/Mbtu. Finally, American gas, highly abundant due to shale gas development, was cheaper at \$4/Mbtu on average over the year. In the downstream, the year was marked by volatile refining margins. The margins were very low in the first

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half of the year and almost tripled in the second half, benefiting from the fall in Brent oil prices. On an annual average, the margins remained low due to overcapacity, particularly in Europe, and the Group's European Refining Margin Indicator (ERMI) was \$18.7/t in 2014 compared with \$17.9/t in 2013. Petrochemicals margins were very good in 2014, particularly in the United States, supported by falling raw material prices, while the polymer market remained favorable. The environment for Marketing & Services was less favorable than in 2013, particularly in the European networks.

In this environment, TOTAL's net income (Group share) amounted to \$4,244 million, down 62% from \$11,228 million in 2013, mainly due to the impacts of the inventory valuation effect and special items, including, in view of the economic environment at year-end, the impairment by the Group of certain assets in the fourth quarter 2014 (approximately \$6.5 billion after tax), primarily in oil sands in Canada, unconventional gas particularly in the United States and European refining (as further detailed in Results 2012-2014 Group results 2014 vs. 2013, below).

As further described in Results 2012-2014 Group results 2014 vs. 2013, below, adjusted net operating income from the Upstream segment in 2014 was \$10,504 million compared to \$12,450 million in 2013, a decrease of 16%, which was due essentially to the decrease in the average realized price of hydrocarbons. Adjusted net operating income from the Refining & Chemicals segment in 2014 was \$2,489 million, an increase of 34% compared to 2013, while the refining margin increased by only 4%. The synergies and efficiency plans supported the ability of the segment to adapt to the lower European margins in the first half of 2014 and subsequently to take advantage of a more favorable refining and chemicals environment in the second half of the year. The petrochemicals environment was more favorable in 2014, especially in the United States. Adjusted net operating income from the Marketing & Services segment in 2014 was \$1,254 million, a decrease of 19% compared to 2013. This decline was mainly due to weather conditions in the first half in Europe, and lower margins in 2014, notably in the European network.

Acquisitions were \$2.5 billion, comprised principally of the acquisition of an interest in the Elk and Antelope discoveries in Papua New Guinea, the acquisition of an additional stake in OAO Novatek<sup>(2)</sup> and the carry on the Utica gas and condensate field in the United States. Asset sales were \$4.7 billion<sup>(3)</sup>, comprised essentially of the sale of interests in Shah Deniz and the associated pipelines in Azerbaijan, Block 15/06 in Angola, the Cardinal midstream assets in the United States and GTT (Gaztransport & Technigaz).

<sup>(1)</sup> EIA's estimates, production including crude oil, condensates, LPGs, unconventional oils and other sources.

<sup>(2)</sup> The Group held an 18.24% stake in OAO Novatek as of December 31, 2014.

<sup>(3)</sup> Excluding other transactions with non-controlling interests.

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### Item 5 - Overview

Investments excluding acquisitions amounted to \$26 billion in 2014, down \$2 billion from 2013. TOTAL financed its investments and dividends while maintaining a solid balance sheet and ended 2014 with a net-debt-to-equity ratio of 31.3%, compared to 23.3% in 2013. The increase is partly due to the higher level of net debt linked to lower cash flow from operations as well as the incomplete status on December 31, 2014, of the sales of Bostik, Totalgaz and the South African coal mines, and partly due to the decrease in equity linked mainly to variations in foreign exchange and to the impact of impairments (as further detailed in Results 2012-2014 Group results 2014 vs. 2013, below).

The Group further improved its safety performance, with a 16% drop in TRIR<sup>(1)</sup> compared with 2013. For all of its projects conducted in a large number of countries, the Group also places emphasis on Corporate Social Responsibility (CSR) challenges and the development of local economies.

In the Upstream segment, the year 2014 saw the start-up of CLOV in Angola, which reached its plateau production ahead of schedule and is a testament to the Group's deep offshore expertise. TOTAL also launched the Kaombo project in Angola after optimizing the project design and reducing the investment by \$4 billion. The Group also continued its exploration program and made discoveries in the Kurdistan region in Iraq and in Côte d'Ivoire, where potential is under review.

The Refining & Chemicals segment's net income continued to grow and the segment is one year ahead in the implementation of its synergy and efficiency programs. Industrial performance improved and helped take full advantage in the second half of the year of the more favorable environment for European refining and attractive petrochemicals margins.

Between 2012 and 2014, the Marketing & Services segment increased its market shares in the networks where it operates from 12% to 13% in Europe and from 15% to 18% in Africa. TOTAL's market share in the lucrative lubricants segment also rose to 4.5% in 2014 compared with 4.2% in 2012. In New Energies, the Group is expanding in the field of solar energy through its subsidiary SunPower, which has won tenders in recent years in Chile and South Africa. SunPower's net income also benefited from significant cost cutting measures and the improved efficiency of solar panels.

In 2014, TOTAL dedicated \$1,353 million to research and development (R&D), compared with \$1,260 million in 2013. The Group continues to invest strongly to improve its technological expertise in the exploration and development of oil and gas resources, as well as to develop its competencies in the fields of

solar energy, biomass and carbon capture and contribute to the evolution of global energy supply.

### Outlook

In response to the recent fall in the oil price, TOTAL has launched an ambitious mitigation plan. The plan includes significant reductions to organic investments<sup>(3)</sup>, operating costs and the exploration budget, as well as an acceleration of its asset sale program.

The Group plans to lower its organic investments by more than 10% from \$26.4 billion in 2014 to \$23-24 billion in 2015, by reducing investments in brownfield developments that have become less profitable. For operating costs, the 3-year program targeting savings of \$2 billion in 2017 has been reinforced in the Upstream segment from 2015. The initial target of \$800 million has been raised to \$1.2 billion in 2015, an increase of 50%. The exploration budget has been reduced by about 30%, to \$1.9 billion in 2015.

Having achieved its 2012-14 asset sale target of \$15-20 billion, TOTAL plans to accelerate its 2015-17 asset sale program of \$10 billion by selling \$5 billion of assets in 2015, in addition to benefiting from the completion of about \$4 billion of asset sales that were already signed and pending at the start of the year.

In the Upstream segment, the Group is focused on the execution and delivery of its major projects and plans eight start-ups this year, of which three already started production in January. These start-ups, plus the new ADCO volumes, will contribute to production growth for the Group of more than 8% in 2015.

In addition, refining overcapacity remains an issue in Europe, and the Group is progressing in its restructuring plans by launching a capacity reduction program at its Lindsey refinery in the United Kingdom and will announce a new plan for its refining activities in France in the spring of 2015.

With the decline in oil prices, the petroleum industry has entered a new cycle. In this context, TOTAL is implementing a strong and immediate response generating \$8 billion in cash in 2015, thereby reducing its cash break-even point by \$40/b without compromising the priority to safety.

Finally, despite intensive investments made for future growth, the Group's balance sheet remains strong, allowing it access to financial markets under very favorable conditions.

As it has demonstrated in the past, TOTAL will make the adjustments necessary to successfully adapt to this period of low prices, while at the same time being prepared to take advantage of a recovery, for the benefit of its shareholders.

## CRITICAL ACCOUNTING POLICIES

A summary of the Group's accounting policies is included in Note 1 to the Consolidated Financial Statements. Management believes that the application of these policies on a consistent basis enables the Group to report useful and reliable information about the Group's financial condition and results of operations.

The preparation of financial statements in accordance with IFRS requires the executive management to make estimates and assumptions that affect the reported amounts of assets, liabilities

and contingent liabilities at the date of preparation of the financial statements and reported income and expenses for the period. Management reviews these estimates and assumptions on an ongoing basis, by reference to past experience and various other factors considered as reasonable which form the basis for assessing the carrying amount of assets and liabilities. Actual results may differ significantly from these estimates, if different assumptions or circumstances apply.

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<sup>(1)</sup> *Total Recordable Injury Rate.*

<sup>(2)</sup> *Company data.*

<sup>(3)</sup> *Investments excluding acquisitions and including changes in non-current loans.*

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## Item 5 - Critical Accounting Policies

Furthermore, where the accounting treatment of a specific transaction is not addressed by any accounting standard or interpretation, management applies its judgment to define and apply accounting policies that provide information consistent with the general IFRS concepts: faithful representation, relevance and materiality.

The following summary provides further information about the critical accounting policies that involve significant elements of management judgment, and which could have a significant impact on the results of the Group. It should be read in conjunction with Note 1 to the Consolidated Financial Statements.

The assessment of critical accounting policies below is not meant to be an all-inclusive discussion of the uncertainties in financial results that can occur from the application of the full range of the Company's accounting policies. Materially different financial results could occur in the application of other accounting policies as well. Likewise, materially different results can occur upon the adoption of new accounting standards promulgated by the various rule-making bodies.

**Successful efforts method of oil and gas accounting**

The Group follows the successful efforts method of accounting for its oil and gas activities. The Group's oil and gas reserves are estimated by the Group's petroleum engineers in accordance with industry standards and SEC regulations. Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations, prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. These estimates do not include probable or possible reserves. Estimated oil and gas reserves are based on available reservoir data and prices and costs in the accounting period during which the estimate is made and are subject to future revision. The Group reassesses its oil and gas reserves at least once a year on all its properties.

Exploration leasehold acquisition costs are capitalized when acquired. During the exploration phase, management exercises judgment on the probability that prospects ultimately would partially or fully fail to find proved oil and gas reserves. Based on this judgmental approach, a leasehold impairment charge may be recorded. This position is assessed and adjusted throughout the contractual period of the leasehold based in particular on the results of exploratory activity and any impairment is adjusted prospectively.

When a discovery is made, exploratory drilling costs continue to be capitalized pending determination of whether potentially economic oil and gas reserves have been discovered by the drilling effort. The length of time necessary for this determination depends on the specific technical or economic difficulties in assessing the recoverability of the reserves. If a determination is made that the well did not encounter oil and gas in economically viable quantities, the well costs are expensed and are reported in exploration expense.

Exploratory drilling costs are temporarily capitalized pending determination of whether the well has found proved reserves if both of the following conditions are met:

- the well has found a sufficient quantity of reserves to justify, if appropriate, its completion as a producing well, assuming that the required capital expenditure is made; and
- satisfactory progress toward ultimate development of the reserves is being achieved, with the Company making sufficient progress assessing the reserves and the economic and operating viability of the project.

The Company evaluates the progress made on the basis of regular project reviews which take into account the following factors:

First, if additional exploratory drilling or other exploratory activities (such as seismic work or other significant studies) are either underway or firmly planned, the Company deems there is satisfactory progress. For these purposes, exploratory activities are considered firmly planned only if they are included in the Company's 3-year exploration plan/budget.

In cases where exploratory activity has been completed, the evaluation of satisfactory progress takes into account indicators such as the fact that costs for development studies are incurred in the current period, or that governmental or other third-party authorizations are pending or that the availability of capacity on an existing transport or processing facility awaits confirmation.

The successful efforts method requires, among other things, that the capitalized costs for proved oil and gas properties (which include the costs of drilling successful wells) be amortized on the basis of reserves that are produced in a period as a percentage of the total estimated proved reserves (unit-of-production method). The impact of changes in estimated proved reserves is dealt with prospectively by amortizing the remaining book value of the asset over the expected future production. If proved reserve estimates are revised downward, earnings could be affected by higher depreciation expense or an immediate write-down of the property's book value. Conversely, if the oil and gas quantities were revised upwards, future per-barrel depreciation and depletion expense would be lower.

### **Valuation of long-lived assets**

In addition to oil and gas assets that could become impaired under the application of successful efforts accounting, other assets could become impaired and require write-down if circumstances warrant. Conditions that could cause an asset to become impaired include lower-than-expected commodity sales prices, changes in the Group's business plans or a significant adverse change in the local or national business climate. The amount of an impairment charge would be based on estimates of the higher of the value in use or the fair value minus cost to sell compared with its book value. The value in use is based on the present value of expected future cash flow using assumptions commensurate with the risks involved in the asset group. The expected future cash flow used for impairment reviews is based on judgmental assessments of future production volumes, prices and costs, considering information available at the date of review.

### **Asset retirement obligations and environmental remediation**

When the Group has a present obligation (legal or constructive), upon application of International Accounting Standard (IAS) 37 and IAS 16, it records provisions for the future decommissioning of production facilities at the end of their economic lives. Management makes judgments and estimates in recording these liabilities. Most of these removal obligations are many years in the future and the precise requirements that will have to be met when the removal event actually occurs are uncertain. Asset removal technologies and costs are constantly changing, as well as political, environmental, safety and public expectations.

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### **Item 5 - Critical Accounting Policies**

The Group also makes judgments and estimates in recording costs and establishing provisions for environmental clean-up and remediation costs, which are based on current information on costs and expected plans for remediation. For environmental provisions, actual costs can differ from estimates because of changes in laws and regulations, public expectations, discovery and analysis of site conditions and changes in clean-up technology.

### **Pensions and post-retirement benefits**

Accounting for pensions and other post-retirement benefits involves judgments about uncertain events, including estimated retirement dates, salary levels at retirement, mortality rates, determination of discount rates for measuring plan obligations, healthcare cost-trend rates and rates of utilization of healthcare services by retirees. These assumptions are based on the environment in each country. The assumptions used are reviewed at the end of each year and may vary from year-to-year, based on the evolution of the situation, which will affect future results of operations. Any differences between these assumptions and the actual outcome will also impact future results of operations.

The significant assumptions used to account for pensions and other post-retirement benefits are determined as follows.

Discount rates are determined by reference to the high quality rates of AA-rated corporate bonds of a duration equivalent to that of the plan obligations. Inflation rates reflect market conditions observed on a country-by-country basis.

Salary increase assumptions (when relevant) are determined by each entity. They reflect an estimate of the actual future salary levels of the individual employees involved, including future changes attributed to general price levels (consistent with inflation rate assumptions), productivity, seniority, promotion and other factors.

Healthcare cost trend assumptions (when relevant) reflect an estimate of the actual future changes in the cost of the healthcare-related benefits provided to the plan participants and are based on past and current healthcare cost trends including healthcare inflation, changes in healthcare utilization, and changes in health status of the participants.

Demographic assumptions such as mortality, disability and turnover reflect the best estimate of these future events for the individual employees involved, based principally on available actuarial data.

The effect pensions had on results of operations, cash flow and liquidity is fully set out in Note 18 to the Consolidated Financial Statements. Net employee benefit expense in 2014 amounted to \$338 million and the Company's contributions to pension plans were \$384 million.

Differences between projected and actual costs and between the normative return and the actual return on plan assets routinely occur and are recognized in the statement of comprehensive income, with no possibility to subsequently recycle them to the income statement.

The past service cost in respect of defined benefit plans is recorded immediately in the statement of income, whether vested or unvested.

For defined contribution plans, expenses correspond to the contributions paid.

### **Income tax computation**

The computation of the Group's income tax expense requires the interpretation of complex tax laws and regulations in many taxing jurisdictions around the world, the determination of expected outcomes from pending litigation, and the assessment of audit findings that are performed by numerous taxing authorities. Actual income tax expense may differ from management's estimates.

## **RESULTS 2012-2014**



As of and for the year ended December 31, (M\$, except per share data)	2014	2013	2012
Non-Group sales	236,122	251,725	257,037
Net income (Group share)	4,244	11,228	13,648
Diluted earnings per share	1.86	4.94	6.02

### Group results 2014 vs. 2013

The average Brent price decreased by 9% to \$99.0/b in 2014 compared to 2013. Brent dropped sharply in the second half, from about \$110/b to less than \$60/b by December 31, 2014. In 2014, TOTAL's average liquids price realization decreased by 13% to \$89.4/b from \$103.3/b in 2013. TOTAL's average natural gas price realization for the Group's consolidated subsidiaries decreased in 2014 by 8% to \$6.57/Mbtu from \$7.12/Mbtu in 2013. In the downstream, the Group's European refining margin indicator ( ERMI ) was \$18.7/t in 2014 compared to \$17.9/t in 2013, an increase of 4%. The environment for petrochemicals also improved, notably in the United States.

The euro-dollar exchange rate averaged \$1.33/€ in 2014, unchanged from 2013, though the euro did start to decline against the dollar in the second half of 2014.

In this context, non-Group sales in 2014 were \$236,122 million, a decrease of 6% compared to \$251,725 million for 2013, with non-Group sales decreasing 11% for the Upstream segment, 7% for the Refining & Chemicals segment and 4% for the Marketing & Services segment.

Net income (Group share) in 2014 decreased by 62% to \$4,244 million from \$11,228 million in 2013, mainly due to the impacts of the inventory valuation effect and special items. The after-tax inventory valuation effect (as defined below under Business segment reporting ) had a negative impact on net income (Group share) of \$2,453 million in 2014, mainly due to a reduction in stock during the period, compared to a negative impact of \$728 million in 2013. The changes in fair value of trading inventories and storage contracts (as defined below under Business segment reporting ) had a positive impact on net income (Group share) of \$25 million in 2014 compared to a negative impact of \$58 million in 2013. Special items had a negative impact of \$6,165 million in 2014, including mainly \$7.1 billion of impairments. Taking into account the current economic environment, the Group impaired its oil sands assets in Canada by \$2.2 billion, its unconventional gas assets, notably in the United States, by \$2.1 billion, its refining assets in Europe by \$1.4 billion, as well as certain other assets in the Upstream (for additional information, see Note 4(e) to the Consolidated Financial Statements). These impairments were partially offset by the gain on the sale of the Group's interests in Shah Deniz in Azerbaijan and GTT (Gaztransport et Technigaz). In

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Item 5 - Results 2012-2014

2013, special items had a negative impact on net income (Group share) of \$2,278 million, as described in [Group results 2013 vs. 2012](#), below.

Income taxes in 2014 amounted to \$8,614 million, a decrease of 42% compared to \$14,767 million in 2013, as a result of the decrease in taxable income and the Group's lower tax rate.

In 2014, TOTAL bought back nearly 4.4 million of its own shares (*i.e.*, approximately 0.18% of the share capital as of December 31, 2014) under the authorization granted by the shareholders at the meeting of May 16, 2014 (see [Item 10](#) 1.7 Share buybacks). The number of fully-diluted shares at December 31, 2014, was 2,285 million compared to 2,276 million at December 31, 2013.

Fully-diluted earnings per share, based on 2,281 million weighted-average shares, was \$1.86 in 2014 compared to \$4.94 in 2013, a decrease of 62%.

Investments in 2014, excluding acquisitions of \$2,539 million and including changes in non-current loans of \$1,229 million, were \$26.4 billion compared to \$28.3 billion in 2013, a decrease of 7% reflecting a lower level of Upstream capital expenditure.

Acquisitions were \$2,539 million in 2014, comprised principally of the acquisition of an interest in the Elk and Antelope discoveries in Papua New Guinea, the acquisition of an additional interest in Novatek<sup>(2)</sup> and the carry on the Utica gas and condensate field in the United States. In 2013, acquisitions were \$4,473 million.

Asset sales were \$4,650 million in 2014, comprised essentially of the sale of interests in Shah Deniz and the associated pipelines in Azerbaijan, Block 15/06 in Angola, GTT and the Cardinal midstream assets in the United States. Asset sales were \$4,750 million in 2013.

Net investments<sup>(3)</sup> were \$24.1 billion in 2014 compared to \$25.9 billion in 2013, a decrease of 7% reflecting a lower level of capital expenditure and a lower level of acquisitions.

See also [Liquidity and Capital Resources](#), below.

**Group results 2013 vs. 2012**

On average, the upstream environment remained stable compared to the previous year with a Brent price of \$108.7/b compared to \$111.7/b in 2012. In 2013, TOTAL's average liquids price realization decreased by 4% to \$103.3/b from \$107.7/b in 2012. TOTAL's average natural gas price realization for the Group's consolidated subsidiaries increased in 2013 by 6% to \$7.12/Mbtu from \$6.74/Mbtu in 2012. In the downstream, the ERMI decreased sharply to \$17.9/t on average compared to \$36.0/t in 2012.

The euro-dollar exchange rate averaged \$1.33/€ in 2013 compared to \$1.28/€ in 2012.

In this context, non-Group sales in 2013 were \$251,725 million, a decrease of 2% compared to \$257,037 million for 2012, with non-Group sales decreasing 7% for the Upstream segment, 2% for the Refining & Chemicals segment and less than 1% for the Marketing & Services segment.

Net income (Group share) in 2013 decreased by 18% to \$11,228 million from \$13,648 million in 2012, mainly due to a lower contribution from the Upstream segment, which was partially offset by a higher contribution from Marketing & Services. The

after-tax inventory valuation effect (as defined below under [Business segment reporting](#)) had a negative impact on net income (Group share) in 2013 of \$728 million compared to a negative impact of \$201 million in 2012. The changes in fair value of trading inventories and storage contracts (as defined below under [Business segment reporting](#)) had a negative impact on net income (Group share) in 2013 of \$58 million compared to a negative impact of \$9 million in 2012. Special items had a negative impact of \$2,278 million in 2013, comprised mainly of the loss on the sale of the Voyageur upgrader project in Canada, the impairment of Upstream assets in the Barnett field in the United States and in Syria, charges and write-offs related to the restructuring of downstream activities in France, partially offset by the gain on the sales of TIGF and Upstream assets in Italy. In 2012, special items had a negative impact on net income (Group share) of \$1,914 million, comprised essentially of an impairment of assets in the Barnett in the United States, provisions for abandonment costs relating to Elgin in the UK, a one-off tax of 4% on petroleum stocks in France, an impairment of chemicals assets in Europe and a provision related to the progress of discussions between the Department of Justice, the SEC and TOTAL to resolve issues arising from an investigation concerning gas contracts awarded in Iran in the 1990s, which were partially offset by gains on asset sales.

Income taxes in 2013 amounted to \$14,767 million, a decrease of 12% compared to \$16,747 million in 2012, primarily as a result of the decrease in taxable income.

In 2013, TOTAL bought back approximately 4.4 million of its own shares (*i.e.*, approximately 0.19% of the share capital as of December 31, 2013) under the authorization granted by the shareholders at the meeting of May 17, 2013 (see [Item 10](#). Share buybacks in 2013). The number of fully-diluted shares at

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December 31, 2013, was 2,276 million compared to 2,270 million at December 31, 2012.

Fully-diluted earnings per share, based on 2,272 million weighted-average shares, was \$4.94 in 2013 compared to \$6.02 in 2012, a decrease of 18%.

Investments in 2013, excluding acquisitions of \$4,473 million and including changes in non-current loans of \$1,257 million, were \$28.3 billion compared to \$23.8 billion in 2012, an increase reflecting the investments for the large number of Upstream projects under development.

Acquisitions in 2013 were \$4,473 million, comprised essentially of the acquisition of an interest in the Libra field in Brazil, an additional 6% stake in the Ichthys project in Australia, an additional 1.6% stake in Novatek<sup>(4)</sup>, the carry on the Utica gas and condensate field in the United States, and the bonuses for exploration permits in South Africa, Mozambique and Brazil. In 2012, acquisitions were \$4,037 million.

Asset sales in 2013 were \$4,750 million, comprised essentially of the sale of TIGF in France, a 25% interest in the Tempa Rossa field in Italy, the interest in the Voyageur upgrader project in Canada, TOTAL's fertilizer activities in Europe and exploration and production assets in Trinidad & Tobago. In 2012, asset sales were \$5.9 billion.

*(1) Consolidated subsidiaries, excluding fixed margins. Effective first quarter 2012, over/under-lifting valued at market prices.*

*(2) The Group held an 18.24% stake in OAO Novatek as of December 31, 2014.*

*(3) Net investments = investments including acquisitions and changes in non-current loans asset sales other transactions with non-controlling interests.*

*(4) The Group held a 16.96% stake in OAO Novatek as of December 31, 2013.*

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### Item 5 - Results 2012-2014

Net investments were \$25.9 billion in 2013, an increase of 18% compared to \$21.9 billion in 2012, mainly due to an increase in organic investments in the Upstream segment. Included in 2013 is \$2.2 billion related primarily to the sale of minority equity interests in Total E&P Congo and Block 14 in Angola, which are shown in the financing section of the cash flow statement of the Consolidated Financial Statements.

See also [Liquidity and Capital Resources](#), below.

### Business segment reporting

The financial information for each business segment is reported on the same basis as that used internally by the chief operating decision maker in assessing segment performance and the allocation of segment resources. Due to their particular nature or significance, certain transactions qualified as special items are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, certain transactions such as restructuring costs or asset disposals, which are not considered to be representative of the normal course of business, may be qualified as special items although they may have occurred in prior years or are likely to recur in following years.

In accordance with IAS 2, the Group values inventories of petroleum products in the financial statements according to the First-In, First-Out (FIFO) method and other inventories using the weighted-average cost method. Under the FIFO method, the cost of inventory is based on the historic cost of acquisition or manufacture rather than the current replacement cost. In volatile energy markets, this can have a significant distorting effect on the reported income. Accordingly, the adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method in order to facilitate the comparability of the Group's results with those of its competitors and to help illustrate the operating performance of these segments excluding the impact of oil price changes on the replacement of inventories. In the replacement cost method, which approximates the Last-In, First-Out (LIFO) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end price differential between one period and another or the average prices of the period. The inventory valuation effect is the difference between the results under the FIFO and replacement cost methods.

The effect of changes in fair value presented as an adjustment item reflects, for trading inventories and storage contracts, differences between internal measures of performance used by TOTAL's management and the accounting for these transactions under IFRS, which requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories recorded at their fair value based on forward prices. Furthermore, TOTAL, in its trading activities, enters into storage contracts, the future effects of which are recorded at fair value in the Group's internal economic performance. IFRS, by requiring accounting for storage contracts on an accrual basis, precludes recognition of this fair value effect.

The adjusted business segment results (adjusted operating income and adjusted net operating income) are defined as replacement

cost results, adjusted for special items, excluding the effect of changes in fair value. For further information on the adjustments affecting operating income on a segment-by-segment basis, and for a reconciliation of segment figures to figures reported in the Company's audited consolidated financial statements, see Note 4 to the Consolidated Financial Statements.

The Group measures performance at the segment level on the basis of net operating income and adjusted net operating income. Net operating income comprises operating income of the relevant segment after deducting the amortization and the depreciation of intangible assets other than leasehold rights, translation adjustments and gains or losses on the sale of assets, as well as all other income and expenses related to capital employed (dividends from non-consolidated companies, income from equity affiliates and capitalized interest expenses) and after income taxes applicable to the above. The income and expenses not included in net operating income that are included in net income are interest expenses related to long-term liabilities net of interest earned on cash and cash equivalents, after applicable income taxes (net cost of net debt and non-controlling interests). Adjusted net operating income excludes the effect of the adjustments (special items and the inventory valuation effect) described above. For further discussion of the calculation of net operating income and the calculation of return on average capital employed (ROACE<sup>(1)</sup>), see Note 2 to the Consolidated Financial Statements.

### Upstream segment results

(M\$)	2014	2013	2012
Non-Group sales	23,484	26,367	28,449
Operating income <sup>(a)</sup>	10,494	22,658	26,031
Equity in income (loss) of affiliates and other items	4,302	2,688	3,005
Tax on net operating income	(8,799)	(13,706)	(15,879)
Net operating income <sup>(a)</sup>	5,997	11,640	13,157

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Adjustments affecting net operating income	4,507	810	1,159
Adjusted net operating income <sup>(b)</sup>	10,504	12,450	14,316
Investments	26,520	29,750	25,200
Divestments	5,764	5,786	3,595
ROACE	10.7%	13.8%	18.1%

<sup>(a)</sup> For the definition of operating income and net operating income, see Note 2 to the Consolidated Financial Statements.

<sup>(b)</sup> Adjusted for special items. See Notes 2 and 4 to the Consolidated Financial Statements.

### **2014 vs. 2013**

In 2014, hydrocarbon production was 2,146 kboe/d, a decrease of 7% compared to 2013, essentially as a result of:

-6% essentially for the expiration of the ADCO license in the United Arab Emirates in January 2014;

-2% essentially for natural decline and higher maintenance in 2014 notably in the first half, partially offset by production growth in the Utica in the United States; and

+1% for production growth from start-ups, essentially CLOV in Angola.

Excluding ADCO, hydrocarbon production was virtually stable compared to 2013.

<sup>(1)</sup> ROACE = adjusted net operating income divided by average capital employed.

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Item 5 - Results 2012-2014

Proved reserves based on SEC rules were 11,523 Mboe at December 31, 2014 (Brent at \$101.3/b) compared to 11,526 Mboe at December 31, 2013 (Brent at \$108.2/b). Based on the 2014 average rate of production, the reserve life is more than thirteen years.

See Item 4 B. Business Overview 2.1.2. Reserves for a discussion of proved reserves and Supplemental Oil and Gas Information (Unaudited) contained elsewhere herein for additional information on proved reserves, including tables showing changes in proved reserves by region.

The Upstream segment's sales (excluding sales to other segments) in 2014 were \$23,484 million compared to \$26,367 million in 2013, a decrease of 11%.

Upstream net operating income in 2014 amounted to \$5,997 million (for 2013, \$11,640 million) from operating income of \$10,494 million (for 2013, \$22,658 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of \$8,799 million (for 2013, tax charge of \$13,706 million), partially offset by income from equity affiliates and other items of \$4,302 million (for 2013, income of \$2,688 million).

Adjusted net operating income from the Upstream segment in 2014 was \$10,504 million compared to \$12,450 million in 2013, a decrease of 16%, which was due essentially to the decrease in the average realized price of hydrocarbons.

Adjusted net operating income for the Upstream segment excludes special items. The exclusion of special items had a positive impact on the segment's adjusted net operating income in 2014 of \$4,507 million, comprised mainly of the impairment of the Group's oil sands assets in Canada (\$2.2 billion), its unconventional gas assets (\$2.1 billion), notably in the United States, and certain other assets in the Upstream segment (for additional information, see Note 4(e) to the Consolidated Financial Statements). In 2013, the exclusion of special items had a positive impact on the segment's adjusted net operating income of \$810 million, as described in Upstream segment results 2013 vs. 2012, below.

The effective tax rate<sup>(1)</sup> for the Upstream segment in 2014 was 57.1% compared to 60.0% in 2013. The lower rate reflects mainly the benefit of tax allowances in the UK in the second quarter 2014.

Technical costs for consolidated subsidiaries, in accordance with ASC 932<sup>(2)</sup> were \$28.3/boe in 2014 compared to \$26.1/boe in 2013, an increase due principally to the increase in depreciation of fixed assets and the increase in production costs, mainly maintenance costs.

The Upstream segment's total capital expenditures in 2014 decreased by 11% to \$26,520 million from \$29,750 in 2013, reflecting essentially a lower level of expenditure on development projects. In 2014, in the Upstream segment, capital expenditure mainly pertained to major projects that drive the Group's growth, such as GLNG and Ichthys in Australia, Surmont in Canada, the Ekofisk and Eldfisk areas in Norway, the Laggan-Tormore projects in the United Kingdom, Moho North in the Republic of the Congo, CLOV in Angola, Ofon II and Egina in Nigeria and Yamal in Russia. Divestments by the Upstream segment were \$5,764 million in 2014, a slight decrease compared to \$5,786 million in 2013.

ROACE for the Upstream segment was 10.7% for the full-year 2014 compared to 13.8% for the full-year 2013, primarily due to lower operating results.

**2013 vs. 2012**

Hydrocarbon production averaged 2,299 kboe/d in 2013, stable compared to 2012, essentially as a result of:

- +2.5% for start-ups and growth from new projects;
- 1% for normal decline, partially offset by lower maintenance, the restart of production from Elgin/Franklin in the UK North Sea and OML 58 in Nigeria;
- 0.5% for portfolio changes, including mainly the sale of interests in Nigeria, the UK, Colombia, and Trinidad & Tobago, net of higher production corresponding to the increased stake in Novatek; and
- 1% for security issues in Nigeria and Libya, partially offset by improved security conditions in Yemen.

Proved reserves based on SEC rules were 11,526 Mboe at December 31, 2013 (Brent at \$108.2/b) compared to 11,368 Mboe at December 31, 2012 (Brent at \$111.13/b). Based on the 2013 average rate of production, reserve life is more than thirteen years.

See Item 4 B. Business Overview 2.1.2. Reserves for a discussion of proved reserves and Supplemental Oil and Gas Information (Unaudited) contained elsewhere herein for additional information on proved reserves, including tables showing changes in proved reserves by region.

The Upstream segment's sales (excluding sales to other segments) in 2013 were \$26,367 million compared to \$28,449 million in 2012, a decrease of 7%.

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Upstream net operating income in 2013 amounted to \$11,640 million (for 2012, \$13,157 million) from operating income of \$22,658 million (for 2012, \$26,031 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of \$13,706 million (for 2012, tax charge of \$15,879 million), partially offset by income from equity affiliates and other items of \$2,688 million (for 2012, income of \$3,005 million).

Adjusted net operating income for the Upstream segment in 2013 was \$12,450 million compared to \$14,316 million in 2012, a decrease of 13% mainly due to a less favorable production mix, higher technical costs, particularly for exploration, and a higher tax rate for the Upstream segment.

Adjusted net operating income for the Upstream segment excludes special items. The exclusion of special items had a positive impact on the segment's adjusted net operating income in 2013 of \$810 million, comprised mainly of the loss on the sale of the Voyageur upgrader project in Canada (\$1,646 million) and the impairment of Upstream assets (\$581 million), principally in the Barnett field in the United States and in Syria, partially offset by the gain on the sales of TIGF and Upstream assets in Italy, and a positive impact of \$1,159 million in 2012, consisting essentially of an impairment of assets in the Barnett in the United States and provisions for abandonment costs relating to Elgin in the UK.

The effective tax rate for the Upstream segment in 2013 was 60.0% in 2013 compared to 58.4% in 2012. The year 2012 was marked by favorable one-off items, such as year-end tax adjustments and the reversal of a non-deductible loss.

*(1) Defined as: (tax on adjusted net operating income) / (adjusted net operating income - income from equity affiliates - dividends received from investments + tax on adjusted net operating income).*

*(2) Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 932, Extractive industries - Oil and Gas.*

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## Item 5 - Results 2012-2014

Technical costs for consolidated subsidiaries, in accordance with ASC 932 were \$26.1/boe in 2013 compared to \$22.8/boe in 2012, notably due to increased depreciation of tangible assets relating to major project start-ups as well as increased exploration expenses.

The Upstream segment's total capital expenditures increased by 18% to \$29,750 million in 2013 from \$25,200 million in 2012, essentially due to the large number of Upstream projects under development. In 2013, in the Upstream segment, capital expenditure was mainly intended for the development of new hydrocarbon production facilities and exploration operations. Development expenditure was devoted primarily to the following projects: GLNG and Ichthys in Australia, Surmont and Fort Hills in Canada, the Ekofisk and Eldfisk areas in Norway, the Laggan Tornmore projects in the United Kingdom, Moho North in the Republic of the Congo, CLOV in Angola, Ofon II and Egina in Nigeria and Yamal in Russia. Divestments by the Upstream segment were \$5,786 million in 2013 compared to \$3,595 million in 2012, an increase of 61%.

ROACE for the Upstream segment was 13.8% for the full-year 2013 compared to 18.1% for the full-year 2012, primarily due to lower operating results and an increase in capital employed.

**Refining & Chemicals segment results**

(M\$)	2014	2013	2012
Non-Group sales	106,124	114,483	117,067
Operating income <sup>(a)</sup>	(1,691)	177	1,350
Equity in income (loss) of affiliates and other items	90	181	271
Tax on net operating income	391	(612)	(337)
Net operating income <sup>(a)</sup>	(1,210)	(254)	1,284
Adjustments affecting net operating income	3,699	2,111	484
Adjusted net operating income <sup>(b)</sup>	2,489	1,857	1,768
Contribution of Specialty Chemicals <sup>(c)</sup>	629	583	491
Investments	2,022	2,708	2,502
Divestments	192	365	392
ROACE	15.0%	9.2%	8.7%

<sup>(a)</sup> For the definition of operating income and net operating income, see Note 2 to the Consolidated Financial Statements.

<sup>(b)</sup> Adjusted for special items and the inventory valuation effect. See Notes 2 and 4 to the Consolidated Financial Statements.

<sup>(c)</sup> Hutchinson, Bostik, Atotech.

**2014 vs. 2013**

The ERMI for the full-year 2014 was \$18.7/t, an increase of 4% compared to \$17.9/t in 2013. Refinery throughput in 2014 increased slightly by 3% to 1,775 kb/d compared to 1,719 kb/d in 2013, essentially due to the start up of SATORP.

Sales for the Refining & Chemicals segment (excluding sales to other segments) in 2014 were \$106,124 million compared to \$114,483 million in 2013, a decrease of 7%.

The net operating income of the Refining & Chemicals segment in 2014 decreased to \$(1,210) million (for 2013, \$(254) million) from operating income of \$(1,691) million (for 2013, \$177 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of \$(391) million (for 2013, tax charge of \$612 million) and income from equity affiliates and other items of \$90 million (for 2013, income of \$181 million).

In 2014, adjusted net operating income from the Refining & Chemicals segment was \$2,489 million, an increase of 34% compared to 2013 while the refining margin increased by only 4% in 2014. The synergies and efficiency plans supported the ability of the segment to adapt to the lower European margins in the first half and subsequently to take advantage of a more favorable refining and chemicals environment in the second half of the year. The petrochemicals environment was more favorable in 2014, especially in the United States.



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Adjusted net operating income for the Refining & Chemicals segment excludes any after-tax inventory valuation effect and special items. The exclusion of the inventory valuation effect had a positive impact on the segment's adjusted net operating income in 2014 of \$2,114 million, essentially as a result of a reduction of stocks, and a positive impact of \$656 million in 2013. The exclusion of special items had a positive impact on the segment's adjusted net operating income in 2014 of \$1,585 million, consisting essentially of impairments of European refining assets, compared to a positive impact of \$1,455 million in 2013, as described in Refining & Chemicals segment results 2013 vs. 2012, below.

Investments by the Refining & Chemicals segment in 2014 were \$2,022 million compared to \$2,708 million in 2013, a decrease of 25%. Divestments by the segment were \$192 million in 2014 compared to \$365 million in 2013, a decrease of 47%.

With a ROACE of 15.0% for the full year 2014 compared to 9.2% for the full year 2013, the segment attained its profitability objective one year earlier than the schedule fixed in 2011.

### **2013 vs. 2012**

The ERMI for the full-year 2013 was \$17.9/t, a decrease of 50% compared to 2012. Refinery throughput for the full-year 2013 decreased by 4% compared to the previous year, reflecting essentially a turnaround at the Antwerp refinery, higher maintenance at the Donges refinery, voluntary shutdowns in response to weak refining margins in late 2013 and the closure of the Rome refinery at the end of the third quarter 2012.

Sales for the Refining & Chemicals segment (excluding sales to other segments) in 2013 were \$114,483 million compared to \$117,067 million in 2012, a decrease of 2%.

The net operating income of the Refining & Chemicals segment in 2013 decreased to \$(254) million (for 2012, \$1,284 million) from operating income of \$177 million (for 2012, \$1,350 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of \$612 million (for 2012, tax charge of \$337 million), offset by income from equity affiliates and other items of \$181 million (for 2012, income of \$271 million).

Adjusted net operating income for the Refining & Chemicals segment in 2013 was \$1,857 million, an increase of 5% compared to \$1,768 million in 2012 despite the 50% decrease in refining margins. The increase was due in part to the tangible results realized from the implementation of planned synergies and operational efficiencies and to a more favorable environment for petrochemicals (particularly in the United States), which offset the sharp decline in European refining margins.

Adjusted net operating income for the Refining & Chemicals segment excludes any after-tax inventory valuation effect and special items. The exclusion of the inventory valuation effect had a positive impact on the segment's adjusted net operating income in 2013 of \$656 million compared to a positive impact of \$149 million in 2012. The exclusion of special items had a positive impact on

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the segment's adjusted net operating income in 2013 of \$1,455 million, reflecting mainly charges and write-offs related to the restructuring of downstream activities in France, and a positive impact of \$335 million in 2012, reflecting mainly an impairment on European chemicals assets.

In addition, the SATORP integrated refinery in Saudi Arabia began to export refined products after the successful start-up of its first units.

Investments by the Refining & Chemicals segment in 2013 were \$2,708 million compared to \$2,502 million in 2012, an increase of 8%. Divestments by the segment in 2013 were \$365 million compared to \$392 million in 2012, a decrease of 7%.

ROACE for the Refining & Chemicals segment was 9.2% for the full-year 2013 compared to 8.7% for the full-year 2012.

**Marketing & Services segment results**

(M\$)	2014	2013	2012
Non-Group sales	106,509	110,873	111,281
Operating income <sup>(a)</sup>	1,158	2,014	1,359
Equity in income (loss) of affiliates and other items	(140)	55	(252)
Tax on net operating income	(344)	(560)	(488)
Net operating income <sup>(a)</sup>	674	1,509	619
Adjustments affecting net operating income	580	45	450
Adjusted net operating income <sup>(b)</sup>	1,254	1,554	1,069
Contribution of New Energies	10		(212)
Investments	1,818	1,814	1,671
Divestments	163	186	196
ROACE	13.3%	16.1%	11.8%

<sup>(a)</sup> For the definition of operating income and net operating income, see Note 2 to the Consolidated Financial Statements.

<sup>(b)</sup> Adjusted for special items and the inventory valuation effect. See Notes 2 and 4 to the Consolidated Financial Statements.

**2014 vs. 2013**

The Marketing & Services segment's refined product sales<sup>(3)</sup> were 1,769 kb/d in 2014 compared to 1,749 kb/d in 2013, an increase of 1% due to higher sales in growth areas and offset by lower sales in Europe, mainly due to mild winter weather conditions impacting heating oil sales and low retail sales throughout the year. The segment's non-Group sales in 2014 were \$106,509 million, a decrease of 4% compared to \$110,873 million in 2013.

Net operating income for the Marketing & Services segment in 2014 was \$674 million (for 2013, \$1,509 million) from an operating income of \$1,158 million (for 2013, \$2,014 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of \$344 million (for 2013, tax charge of \$560 million) and a loss from equity affiliates and other items of \$140 million (for 2013, income of \$55 million).

Adjusted net operating income in 2014 for Marketing & Services was \$1,254 million compared to \$1,554 million in 2013, a decrease of 19% mainly due to a negative accounting effect of \$

100 million on the valuation of hedging positions in the fourth quarter of 2014 and weather conditions in the first half in Europe and lower margins in 2014, notably in the European network.

Adjusted net operating income for the Marketing & Services segment excludes any after-tax inventory valuation effect and special items. The exclusion of the inventory valuation effect had a positive impact on the segment's adjusted net operating income in 2014 of \$384 million compared to a positive impact of \$63 million in 2013. The exclusion of special items had a positive impact on the segment's adjusted net operating income in 2014 of \$196 million compared to a negative impact of \$18 million in 2013.

Investments by the Marketing & Services segment in 2014 were \$1,818 million compared to \$1,814 million in 2013. Divestments by the segment in 2014 were \$163 million compared to \$186 million in 2013, a decrease of 12%.

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ROACE for the Marketing & Services segment was 13.3% for the full-year 2014 compared to 16.1% for the full-year 2013. This decrease was mainly due to lower margins, notably in Europe.

### **2013 vs. 2012**

The Marketing & Services segment's refined product sales were 1,749 kb/d in 2013 compared to 1,710 kb/d in 2012, an increase of 2% due to growth in Africa and the Americas, partially offset by a decrease in Europe. The segment's non-Group sales in 2013 were \$110,873 million, a slight decrease compared to \$111,281 million in 2012.

Net operating income for the Marketing & Services segment in 2013 was \$1,509 million (for 2012, \$619 million) from an operating income of \$2,014 million (for 2012, \$1,359 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of \$560 million (for 2012, tax charge of \$488 million) and income from equity affiliates and other items of \$55 million (for 2012, loss of \$252 million).

Adjusted net operating income from the Marketing & Services segment in 2013 was \$1,554 million compared to \$1,069 million in 2012, an increase of 45% reflecting essentially the improvement in the performance of the New Energies, which had particularly negative results in 2012, as well as the overall improvement made in refined products marketing, particularly in emerging markets.

Adjusted net operating income for the Marketing & Services segment excludes any after-tax inventory valuation effect and special items. The exclusion of the inventory valuation effect had a positive impact on the segment's adjusted net operating income in 2013 of \$63 million compared to a positive impact of \$50 million in 2012. The exclusion of special items had a negative impact on the segment's adjusted net operating income in 2013 of \$18 million compared to a positive impact of \$400 million in 2012, reflecting mainly impairments and restructuring charges in New Energies.

Investments by the Marketing & Services segment increased 9% to \$1,814 million in 2013 compared to \$1,671 million in 2012. Divestments by the segment in 2013 were \$186 million compared to \$196 million in 2012, a decrease of 5%.

ROACE for the Marketing & Services segment was 16.1% for the full-year 2013 compared to 11.8% for the full-year 2012.

<sup>(1)</sup> *The Marketing & Services segment's refined product sales presented herein exclude trading and bulk refining sales, which are reported under the Refining & Chemicals segment.*

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## Item 5 - Liquidity and Capital Resources

**LIQUIDITY AND CAPITAL RESOURCES**

(M\$)	2014	2013	2012
<b>Cash flow from operating activities</b>	<b>25,608</b>	<b>28,513</b>	<b>28,858</b>
Including (increase) decrease in working capital	4,480	2,525	1,392
<b>Cash flow used in investing activities</b>	<b>(24,319)</b>	<b>(28,032)</b>	<b>(21,932)</b>
Total expenditures	(30,509)	(34,431)	(29,475)
Total divestments	6,190	6,399	7,543
<b>Cash flow used in financing activities</b>	<b>5,909</b>	<b>(1,521)</b>	<b>(4,817)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>7,198</b>	<b>(1,040)</b>	<b>2,109</b>
Effect of exchange rates	(2,217)	831	153
Cash and cash equivalents at the beginning of the period	20,200	20,409	18,147
<b>Cash and cash equivalents at the end of the period</b>	<b>25,181</b>	<b>20,200</b>	<b>20,409</b>

TOTAL's cash requirements for working capital, capital expenditures, acquisitions and dividend payments over the past three years were financed primarily by a combination of funds generated from operations, borrowings and divestments of non-core assets. In the current environment, TOTAL expects its external debt to be principally financed from the international debt capital markets. The Group continually monitors the balance between cash flow from operating activities and net expenditures. In the Company's opinion, its working capital is sufficient for its present requirements.

**Capital expenditures**

The largest part of TOTAL's capital expenditures in 2014 was made up of additions to intangible assets and property, plant and equipment (approximately 88%), with the remainder attributable to equity-method affiliates and to acquisitions of subsidiaries. In the Upstream segment, as described in more detail under

Supplemental Oil and Gas Information (Unaudited) Costs incurred in oil and gas property acquisition, exploration and development activities, capital expenditures in 2014 were principally development costs (approximately 83%, mainly for construction of new production facilities), exploration expenditures (successful or unsuccessful, approximately 6%) and acquisitions of proved and unproved properties (approximately 8%). In the Refining & Chemicals segment, about 85% of capital expenditures in 2014 were related to refining and petrochemical activities (essentially 45% for existing units including maintenance and major turnarounds and 55% for new construction), the balance being related to Specialty Chemicals. In the Marketing & Services segment, capital expenditures were split between marketing/retail activities (approximately 80%) and New Energies (approximately 20%). For additional information on capital expenditures, please refer to the discussion above in Overview and Results 2012-2014, above, and Item 4 B. Business Overview 5. Investments.

**Cash flow**

Cash flow from operating activities in 2014 was \$25,608 million compared to \$28,513 million in 2013 and \$28,858 million in 2012. The \$2,905 million decrease in cash flow from operating activities from 2013 to 2014 was due essentially to lower net income (Group share), partially offset by a reduction in working capital. The

Group's working capital requirement was affected by the effect of changes in oil and oil product prices. As IFRS rules require TOTAL to account for inventories of petroleum products according to the FIFO method, an increase in oil and oil product prices at the end of the relevant period compared to the beginning of the same period generates, all other factors remaining equal, an increase in inventories and accounts receivable net of an increase in accounts payable, resulting in an increase in working capital requirements. Similarly, a decrease in oil and oil products prices generates a decrease in working capital requirements. In 2014, the Group's working capital requirement decreased by \$4,480 million, due in part to reductions in inventory and receivables partially offset by a decrease in payables. The Group's working capital requirement decreased by \$2,525 million in 2013 and by \$1,392 million in 2012, in both cases partly due to reductions in inventory and receivables.

Cash flow used in investing activities in 2014 was \$24,319 million compared to \$28,032 million in 2013 and \$21,932 million in 2012. The decrease from 2013 to 2014 was due to lower expenditures on the portfolio of Upstream projects as various projects approach completion. The increase from 2012 to 2013 was due to the lower level of proceeds from disposals of non-current investments in 2013 as well as to the larger portfolio of Upstream projects that were under development in 2013. Total expenditures in 2014 were \$30,509 million compared to \$34,431 million in 2013 and \$29,475 million in 2012. During 2014, 87% of the expenditures were made by the Upstream segment (as compared to 87% in 2013 and 86% in 2012), 7% by the Refining & Chemicals segment (also 8% in 2013 and 2012) and

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6% by the Marketing & Services segment (as compared to 5% in 2013 and 6% in 2012). The main source of funding for these expenditures has been cash from operating activities and higher issuance of non-current debt. For additional information on expenditures, please refer to the discussions above in [Overview](#) and [Results 2012-2014](#).

Divestments, based on selling price and net of cash sold, in 2014 were \$6,190 million compared to \$6,399 million in 2013 and \$7,543 million in 2012. In 2014, the Group's principal divestments were asset sales of \$4,650 million, consisting mainly of sales in the Upstream segment in Azerbaijan, Angola and the United States. In 2013, the Group's principal divestments were asset sales of \$4,750 million, consisting mainly of sales of assets in the Upstream segment in Canada, Italy and Trinidad & Tobago, and the sale of its subsidiary Transport et Infrastructures Gaz France (TIGF). In 2012, the Group's principal divestments were asset sales of \$5,892 million, consisting mainly of sales of Sanofi shares and assets in the Upstream segment in Great Britain, Norway, Nigeria and Colombia.

Cash flow raised from financing activities in 2014 was \$5,909 million compared to cash flow used of \$1,521 million in 2013 and \$4,817 million in 2012. The decrease in cash flow used in financing activities in 2014 compared to 2013 was due primarily to higher issuance of non-current financial debt (\$15,786 million in 2014 compared to \$11,102 million in 2013) and a lower decrease in current borrowings (\$2,374 million in 2014 compared to \$(9,037) million in 2013), largely offset by a decrease in current financial assets and liabilities (\$(351) million in 2014 compared to \$1,298 million in 2013) and a decrease in other transactions with non-controlling interests (\$179 million in 2014 compared to \$2,153 million in 2013).

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### **Item 5 - Guarantees and Other Off-Balance Sheet Arrangements**

#### **Indebtedness**

The Company's non-current financial debt at year-end 2014 was \$45,481 million<sup>(1)</sup> compared to \$34,574 million at year-end 2013 and \$29,392 million at year-end 2012. For further information on the Company's level of borrowing and the type of financial instruments, including maturity profile of debt and currency and interest rate structure, see Note 20 to the Consolidated Financial Statements. For further information on the Company's treasury policies, including the use of instruments for hedging purposes and the currencies in which cash and cash equivalents are held, see Item 11. Quantitative and Qualitative Disclosures About Market Risk .

Cash and cash equivalents at year-end 2014 were \$25,181 million compared to \$20,200 million at year-end 2013 and \$20,409 million at year-end 2012.

#### **Shareholders' equity**

Shareholders' equity at year-end 2014 was \$93,531 million compared to \$103,379 million at year-end 2013 and \$95,658 million at year-end 2012. Changes in shareholders' equity in 2014 were primarily due to the impacts of dividend payments, variations in foreign exchange and impairments (for information concerning the impairments, refer to Results 2012-2014 , above). Changes in shareholders' equity in 2013 were primarily due to the addition of net income and other operations with non-controlling interests, partially offset by the payment of dividends.

Changes in shareholders' equity in 2012 were primarily due to the addition of net income, partially offset by the payment of dividends.

In 2014, TOTAL bought back nearly 4.4 million of its own shares (*i.e.*, 0.18% of the share capital as of December 31, 2014) under the authorization granted by the shareholders at the meeting of May 16, 2014 (see Item 10 1.7. Share buybacks ). In 2013, TOTAL bought back approximately 4.4 million of its own shares (*i.e.*, 0.19% of the share capital as of December 31, 2013) under the authorization granted by the shareholders at the meeting of May 17, 2013. In 2012, TOTAL bought back 1.8 million of its own shares (*i.e.*, 0.08% of the share capital as of December 31, 2012) under the previous authorization granted by the shareholders at the meeting of May 11, 2012.

#### **Net-debt-to-equity**

As of December 31, 2014, TOTAL's net-debt-to-equity ratio<sup>(2)</sup> was 31.3% compared to 23.3% and 21.9% at year-ends 2013 and 2012, respectively. The increase from 2013 to 2014 was partly due to the higher level of net debt linked to lower cash flow from operations as well as the incomplete status on December 31, 2014, of the sales of Bostik, Totalgaz and the South African coal mines, and partly due to the decrease in equity linked mainly to variations in foreign exchange and to the impact of impairments (for information concerning the impairments, refer to Results 2012-2014 , above).

As of December 31, 2014, TOTAL S.A. had \$10,514 million of long-term confirmed lines of credit, of which \$10,514 million were unused.

## **GUARANTEES AND OTHER OFF-BALANCE SHEET ARRANGEMENTS**

As part of certain project financing arrangements, TOTAL S.A. provided in 2008 guarantees in connection with the financing of the Yemen LNG project for an amount of \$729 million. These guarantees are presented under Guarantees given against borrowings in Note 23 to the Consolidated Financial Statements.

Guarantees given against borrowings also include the guarantees provided in 2010 by TOTAL S.A. in connection with the financing of the Jubail project (operated by SAUDI ARAMCO TOTAL Refining and Petrochemical Company (SATORP)) of up to \$3,188 million, proportional to TOTAL's share in the project (37.5%). In addition, TOTAL S.A. provided in 2010 a guarantee in favor of its partner in the Jubail project (Saudi Arabian Oil Company) with respect to Total Refining

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Saudi Arabia SAS's obligations under the shareholders agreement with respect to SATORP. As of December 31, 2014, this guarantee, which is presented under Other operating commitments in Note 23 to the

Consolidated Financial Statements, is of up to \$1,230 million. In 2013, TOTAL S.A. provided guarantees in connection with the financing of the Ichthys LNG project. As of December 31, 2014, these guarantees, which are presented under Guarantees given against borrowings in Note 23 to the Consolidated Financial Statements, amounted to \$4,998 million.

These guarantees and other information on the Company's commitments and contingencies are presented in Note 23 to the Consolidated Financial Statements. The Group does not currently consider that these guarantees, or any other off-balance sheet arrangements of TOTAL S.A. nor any other members of the Group, have or are reasonably likely to have, currently or in the future, a material effect on the Group's financial condition, changes in financial condition, revenues or expenses, results of operation, liquidity, capital expenditures or capital resources.

*(1) Excludes net current and non-current financial debt of \$(56) million as of December 31, 2014, \$(179) million as of December 31, 2013 and \$997 million as of December 31, 2012) related to assets classified in accordance with IFRS 5 - non-current assets held for sale and discontinued operations .*

*(2) Net-debt-to-equity ratio = net debt (i.e., the sum of current borrowings, other current financial liabilities and non-current financial debt, net of current financial assets, net financial assets and liabilities related to assets classified in accordance with IFRS 5 as non-current assets held for sale, hedging instruments on non-current financial debt and cash and cash equivalents) divided by the sum of shareholders' equity and non-controlling interests after expected dividends payable.*

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Item 5 - Research and Development

**CONTRACTUAL OBLIGATIONS**

Payment due by period (M\$)	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
Non-current debt obligations <sup>(a)</sup>		9,275	9,184	25,385	43,844
Current portion of non-current debt obligations <sup>(b)</sup>	4,411				4,411
Finance lease obligations <sup>(c)</sup>	40	66	32	220	358
Asset retirement obligations <sup>(d)</sup>	651	1,576	854	10,040	13,121
Operating lease obligations <sup>(c)</sup>	1,218	1,746	981	1,675	5,620
Purchase obligations <sup>(e)</sup>	19,987	17,856	16,052	106,942	160,837
<b>Total</b>	<b>26,307</b>	<b>30,519</b>	<b>27,103</b>	<b>144,262</b>	<b>228,191</b>

<sup>(a)</sup> Non-current debt obligations are included in the items *Non-current financial debt* and *Hedging instruments of non-current financial debt* of the Consolidated Balance Sheet. The figures in this table are net of the non-current portion of issue swaps and swaps hedging bonds, and exclude non-current finance lease obligations of \$318 million and net current and non-current financial debt of \$(56) million related to assets classified in accordance with IFRS 5 non-current assets held for sale and discontinued operations .

<sup>(b)</sup> The current portion of non-current debt is included in the items *Current borrowings* , *Current financial assets* and *Other current financial liabilities* of the balance sheet. The figures in this table are net of the current portion of issue swaps and swaps hedging bonds and exclude the current portion of finance lease obligations of \$40 million.

<sup>(c)</sup> Finance lease obligations and operating lease obligations: the Group leases real estate, retail stations, ships, and other equipment through non-cancelable capital and operating leases. These amounts represent the future minimum lease payments on non-cancelable leases to which the Group is committed as of December 31, 2014, less the financial expense due on finance lease obligations for \$78 million.

<sup>(d)</sup> The discounted present value of Upstream asset retirement obligations, primarily asset removal costs at the completion date.

<sup>(e)</sup> Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on TOTAL and specify all significant terms, including the amount and the timing of the payments. These obligations mainly include: hydrocarbon unconditional purchase contracts (except where an active, highly liquid market exists and when the hydrocarbons are expected to be re-sold shortly after purchase), reservation of transport capacities in pipelines, unconditional exploration works and development works in the Upstream segment, and contracts for downstream capital investment projects. This disclosure does not include contractual exploration obligations with host states where a monetary value is not attributed and purchases of booking capacities in pipelines where the Group has a participation superior to the capacity used.

For additional information on the Group's contractual obligations, see Note 23 to the Consolidated Financial Statements. The Group has other obligations in connection with pension plans which are described in Note 18 to the Consolidated Financial Statements. As these obligations are not contractually fixed as to timing and amount, they have not been included in this disclosure. Other non-

current liabilities, detailed in Note 19 to the Consolidated Financial Statements, are liabilities related to risks that are probable and amounts that can be reasonably estimated. However, no contractual agreements exist related to the settlement of such liabilities, and the timing of the settlement is not known.



## RESEARCH AND DEVELOPMENT

TOTAL dedicated \$1,353 million to research and development (R&D) in 2014, compared with \$1,260 million in 2013 and \$1,034 million in 2012. The process initiated in 2004 to increase R&D budgets continued.

In 2014, 4,840 people were dedicated to R&D activities, compared with 4,684 in 2013 and 4,110 in 2012.

R&D at TOTAL focuses on six major axes:

- developing knowledge, tools and technological mastery to discover and profitably operate complex oil and gas resources to help meet the global demand for energy;
- developing and industrializing solar, biomass and carbon capture and storage technologies to help prepare for future energy needs;
- developing practical, innovative and competitive materials and products that meet customers' specific needs, contribute to the emergence of new features and systems, enable current materials to be replaced by materials showing higher performance for users, and address the challenges of improved energy efficiency, lower environmental impact and toxicity, better management of their life cycle and waste recovery;
- developing, industrializing and improving first-level competitive processes for the conversion of oil, gas, coal and biomass resources to adapt to changes in resources and markets, improve reliability and safety, achieve better energy efficiency, reduce the environmental footprint and maintain the Group's economic margins in the long term;
- understanding and measuring the impacts of the Group's operations and products on ecosystems (water, soil, air, biodiversity) and recovering waste to improve environmental safety, as part of the regulation in place, and reduce their environmental footprint to achieve sustainability in the Group's operations; and
- mastering and using innovative technologies such as biotechnologies, materials sciences, nanotechnologies, high-performance computing, information and communications technologies or new analytic techniques.

These issues are addressed within a portfolio of projects in order to capture synergies. Various aspects may be looked at independently by different divisions.

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The portfolio managed by the entity tasked with developing small and medium-sized enterprises ( SMEs ) specialized in innovative energy technologies and cleantechs has grown regularly since 2009. In addition, a loan facility was introduced for innovative SMEs that develop technologies of interest for the Group.

The Group intends to increase R&D in all of its sectors through cross-functional themes and technologies. Attention is paid to synergies of R&D efforts between business units.

The Group has twenty-two R&D sites worldwide and has developed approximately 1,000 partnerships with other industrial

groups and academic or highly specialized research institutes. TOTAL also has a permanently renewed network of scientific advisors worldwide who monitor and advise on matters of interest to the Group s R&D activities. Long-term partnerships with universities and academic laboratories, deemed strategic in Europe, the United States, Japan and China, as well as innovative SMEs are part of the Group s approach.

Each segment is developing an active intellectual property activity, aimed at protecting its innovations, allowing its activity to develop without constraints as well as facilitating its partnerships. In 2014, more than 300 new patent applications were filed by the Group.

## **ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES**

### **A. DIRECTORS AND SENIOR MANAGEMENT**

#### **1. Composition of the Board of Directors**

Directors are appointed by the shareholders for a 3-year term (Article 11 of the Company s bylaws).

In case of the resignation or death of a director between two Shareholders Meetings, the Board of Directors may temporarily appoint a replacement director. This appointment must be ratified by the shareholders at the next Shareholders Meeting. The terms of office of the members of the Board are staggered to more evenly space the renewal of appointments and to ensure the continuity of the work of the Board of Directors and its Committees.

The Board of Directors appoints the Chairman of the Board from among its members. The Board of Directors also appoints the Chief Executive Officer, who may or may not be a member of the Board.

By virtue of the provisions of French law as well as of Article 11 of the Company s bylaws, the Board of Directors includes among its members one director representing employee shareholders and one director representing employees.

##### **1.1. Composition of the Board of Directors as of December 31, 2014**

As of December 31, 2014, the Board of Directors had fourteen members, including one director appointed by the shareholders to represent the Group s employee shareholders, one director appointed by the Central Workers Council to represent employees, and twelve other directors (including seven independent directors, see C. Board Practices and Corporate Governance 5. Director independence , below).

The following individuals were members of the Board of Directors of TOTAL S.A. (information as of December 31, 2014):

***Thierry Desmarest***

Born on December 18, 1945 (French).

A graduate of École Polytechnique and an Engineer of France's Corps des Mines engineering school, Mr. Desmarest served as Director of Mines and Geology in New Caledonia, then as technical advisor at the Offices of the Minister of Industry and the Minister of Economy. He joined TOTAL in 1981, where he held various management positions, then served as President of Exploration & Production until 1995. He served as Chairman and Chief Executive Officer of TOTAL from May 1995 until February 2007, and then as Chairman of the Board of TOTAL until May 21, 2010. He was then appointed Honorary Chairman and remained a director of TOTAL and Chairman of the TOTAL Foundation. On October 22, 2014, he

was again appointed as Chairman of the Board of Directors for a term of office due to expire on December 18, 2015.

Director of TOTAL S.A. since 1995. Last renewal: May 17, 2013 until 2016.

Chairman of the Governance and Ethics Committee, Chairman of the Strategic Committee.

Holds 186,576 shares.

*Principal other directorships*

Director of L. Air Liquide\*

Director of Renault S.A.\*

Director of Renault S.A.S.

\* *Company names marked with an asterisk are publicly listed companies.*

*Underlined companies are companies excluded from the group in which the director has his or her main duties.*

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### **Item 6 - A. Directors and Senior Management**

#### ***Patrick Artus***

Born on October 14, 1951 (French).

Independent director.

A graduate of École Polytechnique, the École Nationale de la Statistique et de l'Administration Économique (ENSAE) and the Institut d'études politiques de Paris, Mr. Artus began his career at INSEE (French National Institute for Statistics and Economic Studies) where his work included economic forecasting and modeling. He then worked at the Economics Department of the OECD (1980), later becoming the Head of Research at the ENSAE from 1982 to 1985. He was scientific adviser at the research department of the Banque de France, before joining the Natixis Group as the head of the research department, and has been a

member of its Executive Committee since May 2013. He is an associate professor at the University of Paris I, Sorbonne. He is also a member of the Conseil d'analyse économique to the French Prime Minister and of the Cercle des Économistes.

Director of TOTAL S.A. since 2009. Last renewal: May 11, 2012 until 2015.

Member of the Compensation Committee and the Governance and Ethics Committee.

Holds 1,000 shares.

#### ***Principal other directorships***

Director of IPSOS\*

#### ***Patricia Barbizet***

Born on April 17, 1955 (French).

Independent director.

Ms. Barbizet is the Chief Executive Officer of Artemis, the Pinault family's investment company, Chairwoman and Chief Executive Officer of Christie's International and Vice Chairman of the Board of Directors of Kering S.A. She joined the Pinault group in 1989 as the Chief Financial Officer. In 1992, she assisted in the creation of Artemis and became its Chief Executive Officer in the same year. In 2014, she was appointed Chief Executive Officer of Christie's International. She was previously the Treasurer of Renault Véhicules Industriels and then Chief Financial Officer of Renault Crédit International. Ms. Barbizet is also a member of the Board of Directors of TOTAL S.A. and PSA Peugeot Citroën. She was also a member of the Board of Directors of Bouygues from 2005 to 2012, and Chairwoman of the investment committee of the Fonds Stratégique d'Investissement from 2008 to 2013. She is an ESCP Europe graduate (class of 1976).

Director of TOTAL S.A. since 2008. Last renewal: May 16, 2014 until 2017.

Chairperson of the Audit Committee and member of the Strategic Committee.

Holds 1,000 shares.

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### *Principal other directorships*

Director of PSA Peugeot Citroën\*  
Director and Vice Chairman of the Board of Directors of Kering S.A.\*  
Director of Groupe Fnac\* (S.A.)  
Director and Chief Executive Officer of Artémis (S.A.)  
Chief Executive Officer (non-Director) of Financière Pinault (S.C.A.)  
Member of the Supervisory Board of Financière Pinault (S.C.A.)  
Director of Société Nouvelle du Théâtre Marigny (S.A.)  
Permanent representative of Artémis, member of the Board of Directors of Agefi (S.A.)  
Permanent representative of Artémis, member of the Board of Directors of Sebdo le Point (S.A.)  
Member of the Management Board of Société Civile du Vignoble de Château Latour (société civile)  
Director of Yves Saint Laurent (S.A.S.)  
Chairwoman, CEO and Board member of Christie's International Plc (England)  
Administratore Delegato & amministratore de Palazzo Grazi (Italy)  
Non-executive Board member of Kering Holland (formerly Gucci Group NV)

\* *Company names marked with an asterisk are publicly listed companies.  
Underlined companies are companies excluded from the group in which the director has his or her main duties.*

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***Marc Blanc***

Born on December 7, 1954 (French).

Director representing employees.

After joining the Group in 1980 as a refinery operator at the Grandpuits Refinery, Mr. Blanc has, since 1983, exercised a number of trade union functions, in particular as Secretary of the European Elf Aquitaine Committee and then at TOTAL S.A. from 1991 to 2005. From 1995 to 1997, he worked as Secretary General of the CFTD Seine et Marne trade union for the chemicals industry (Syndicat Chimie CFDT), and then, from 1997 to 2001, as Deputy Secretary General of the CFTD trade union for the power and chemicals industries in the Île de France region (Syndicat Énergie Chimie, SECIF), where he became Secretary General in 2001 and continue in this role until 2005. Subsequently, from 2005 to 2012, Mr. Blanc acted as Federal Secretary of the CFDT chemical and power industry federation (Fédération Chimie Énergie) where he was responsible first for industrial policy and then for sustainable development, corporate social responsibility, international affairs (excluding Europe), and the oil and chemicals sectors. From 2009 to 2014, he was Director of the Chemicals and

Power Industry Research and Training Institute (IDEFORCE association) as well as Adviser to the Economic, Social and Environmental Council (Conseil Économique, Social et Environnemental, CESE) where he sits as a member of the Economic and Finance section as well as of the Environment section. In particular, he is responsible for submitting a report on the societal challenges of biodiversity (*la biodiversité, relever le défi sociétal*), which was published in 2011, and co-author with Alain Bougrain-Dubourg of a follow-up opinion entitled *Acting for Biodiversity (Agir pour la Biodiversité)* submitted in 2013. Mr. Blanc was also a member of the CESE's temporary Committee on the annual report on the state of France in October 2013.

Director of TOTAL S.A. representing employees as of November 4, 2014 until 2017.

Holds 345 TOTAL shares and 640 units in the TOTAL ACTIONNARIAT FRANCE collective investment fund.

*Principal other directorships*

None

***Gunnar Brock***

Born on April 12, 1950 (Swedish).

Independent director.

A graduate of the Stockholm School of Economics with an MBA in Economics and Business Administration, Mr. Brock held various international positions at Tetra Pak. He served as Chief Executive Officer of Alfa Laval from 1992 to 1994 and as Chief Executive Officer of Tetra Pak from 1994 to 2000. After serving as Chief Executive Officer of Thule International, he was appointed Chief Executive Officer of Atlas Copco AB from 2002 to 2009. He is currently Chairman of the Board of Stora Enso Oy. Mr. Brock is also a member of the Royal Swedish Academy of Engineering Sciences and of the Board of Directors of the Stockholm School of Economics.

Director of TOTAL S.A. since 2010. Last renewal: May 17, 2013 until 2016.

Member of the Compensation Committee, the Governance and Ethics Committee and the Strategic Committee.

Holds 1,000 shares.

*Principal other directorships*

Chairman of the Board of Stora Enso Oy\*  
Member of the Board of Investor AB\*  
Member of the Board of Syngenta AG\*  
Chairman of the Board of Mölnlycke Health Care Group  
Chairman of the Board of Rolling Optics  
Member of the Board of Stena AB

\* *Company names marked with an asterisk are publicly listed companies.  
Underlined companies are companies excluded from the group in which the director has his or her main duties.*

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### **Item 6 - A. Directors and Senior Management**

#### ***Marie-Christine Coisne-Roquette***

Born on November 4, 1956 (French).

Independent director.

Ms. Coisne-Roquette has a Bachelor Degree in English Lawyer by training, with a French Masters Law and a Specialized Law Certificate from the New York bar, she started a career as an attorney in 1981 at the Paris and New York bars, as an associate of Cabinet Sonier & Associés in Paris. In 1984, she joined the Board of Sonepar as a director and gave up her law career in 1988 to work full time for the family group. As Chairman of the family holding company, Colam Entreprendre, and later of the Sonepar Supervisory Board, she consolidated family ownership, reorganized the Group structures and reinforced the shareholders Group to sustain its long-term strategy. Chairman and CEO of Sonepar from early 2002 until end 2012, Ms. Coisne-Roquette handed over the operational management of the Group to the Managing Director, and is now Chairman of the Board of Sonepar. She heads also Colam Entreprendre as its Chairman and CEO. Formerly a member of the Young Presidents Organization (YPO), she served the MEDEF (France's main employers' association) as Executive Committee member from 2000 to 2013 and Chairman of the Tax Commission the last eight years. She is currently member of the Economic, Social and Environmental Council and a Director of TOTAL.

Director of TOTAL S.A. since 2011. Last renewal: May 16, 2014 until 2017.

Member of the Audit Committee, Member of the Compensation Committee.

Holds 3,550 shares.

#### ***Principal other directorships***

Chairperson of the Board of Directors of Sonepar S.A.  
Chairperson and Chief Executive Officer of Colam Entreprendre  
Permanent representative of Colam Entreprendre, co-manager of Sonedis (*société civile*)  
Permanent representative of Colam Entreprendre, Director of Sovemarco Europe (S.A.)  
Permanent representative of Sonepar, Director of Sonepar France  
Co-manager of Développement Mobilier & Industriel (D.M.I.) (*société civile*)  
Manager of Ker Coro (*société civile immobilière*)

#### ***Bertrand Collomb***

Born on August 14, 1942 (French).

A graduate of École Polytechnique and an Engineer of France's Corps des Mines engineering school, Mr. Collomb held a number of positions within the Ministry of Industry and other cabinet positions from 1966 to 1975. He joined the Lafarge group in 1975, where he served in various management positions. He served as Chairman and Chief Executive Officer of Lafarge from 1989 to 2003, then as Chairman of the Board of Directors from 2003 to 2007, and has been the Honorary Chairman since 2007.

Director of TOTAL S.A. since 2000. Last renewal: May 11, 2012 until 2015.

Member of the Governance and Ethics Committee.

Holds 4,932 shares.



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### *Principal other directorships*

Director of DuPont\* (United States of America)  
Director of Atco\* (Canada)

\* *Company names marked with an asterisk are publicly listed companies.  
Underlined companies are companies excluded from the group in which the director has his or her main duties.*

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Item 6 - A. Directors and Senior Management

***Paul Desmarais, jr(1)***

Born on July 3, 1954 (Canadian).

A graduate of McGill University in Montreal and of the Institut européen d'administration des affaires (INSEAD) in Fontainebleau, Mr. Desmarais was elected Vice Chairman (1984) and then Chairman of the Board (1990) of Corporation Financière Power, a company he helped found. Since 1996, he has served as Chairman of the Board and Co-Chief Executive Officer of Power Corporation of Canada.

Director of TOTAL S.A. since 2002. Last renewal: May 16, 2014 until 2017.

Holds 2,000 ADRs (corresponding to 2,000 shares).

*Principal other directorships*

Chairman of the Board & Co-Chief Executive Officer of Power Corporation of Canada\*  
 Executive Co-Chairman of the Board of Power Financial Corporation\* (Canada)  
 Chairman and Executive Director of Pargesa Holding S.A.\* (Switzerland)  
 Director and member of the Executive Committee of the Great-West Life Assurance Company (Canada)  
 Director and member of the Executive Committee of The Great-West Life & Annuity Insurance Company (United States of America)  
 Director and member of the Executive Committee of Great-West Lifeco Inc.\* (Canada)  
 Director of Great-West Financial (Canada) Inc. (Canada)  
 Vice Chairman, Director and member of the Standing Committee of Groupe Bruxelles Lambert SA\* (Belgium)  
 Director and member of the Executive Committee of Investors Group Inc. (Canada)  
 Director and member of the Executive Committee of London Insurance Group Inc. (Canada)  
 Director and member of the Executive Committee of London Life Insurance Company (Canada)  
 Director and member of the Executive Committee of Mackenzie Inc.  
 Director and Deputy Chairman of the Board of La Presse, ltée (Canada)  
 Director and Deputy Chairman of Gesca ltée (Canada)  
 Director of Lafarge\* S.A. (France)  
 Director and member of the Executive Committee of The Canada Life Assurance Company (Canada)  
 Director and member of the Executive Committee of The Canada Life Financial Corporation (Canada)  
 Director and member of the Executive Committee of IGM Financial Inc.\* (Canada)  
 Director and Chairman of the Board of 171263 Canada Inc. (Canada)  
 Director of 152245 Canada Inc. (Canada)  
 Director of GWL&A Financial Inc. (United States of America)  
 Director of Great-West Financial (Nova Scotia) Co. (Canada)  
 Director of Great-West Life & Annuity Insurance Company of New York (United States of America)  
 Director of Power Communications Inc. (Canada)  
 Director and Chairman of the Board of Power Corporation International (Canada)  
 Director and member of the Executive Committee of Putnam Investments, LLC (United States of America)  
 Member of the Supervisory Board of Power Financial Europe B.V. (Netherlands)  
 Director of Canada Life Capital Corporation Inc. (Canada)  
 Director and member of the Executive Committee of The Canada Life Insurance Company of Canada (Canada)  
 Director and Deputy Chairman of the Board of Groupe de Communications Square Victoria Inc. (Canada)  
 Member of the Supervisory Board of Parjointco N.V. (Netherlands)  
 Director of SGS S.A.\* (Switzerland)

***Anne-Marie Idrac***

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Born on July 27, 1951 (French).

Independent director.

A graduate of Institut d Etudes Politiques de Paris and formerly a student at École Nationale d Administration (ENA 1974), Ms. Idrac began her career holding various positions as a senior civil servant at the Ministry of Infrastructure (Ministère de l Équipement) in the fields of environment, housing, urban planning and transportation. She served as Executive Director of the public institution in charge of the development of Cergy-Pontoise (Établissement public d Aménagement de Cergy-Pontoise) from 1990 to 1993 and Director of land transport from 1993 to 1995. Ms. Idrac was State Secretary for Transport from May 1995 to June 1997, elected member of Parliament for Yvelines from 1997

to 2002, regional councilor for Île-de-France from 1998 to 2002, and State Secretary for Foreign Trade from March 2008 to November 2010. She also served as Chairperson and Chief Executive Officer of RATP from 2002 to 2006 and then as Chairperson of SNCF from 2006 to 2008.

Director of TOTAL S.A. since May 11, 2012 and until 2015.

Member of the Governance and Ethics Committee.

Holds 1,195 shares.

*Principal other directorships*

Director of Bouygues\*

Director of Saint Gobain\*

Member of the Supervisory Board of Vallourec\*

<sup>(1)</sup> Mr. Desmarais, jr is Vice Chairman, a Director and a member of the Permanent Committee of Groupe Bruxelles Lambert, which acting in concert with Compagnie Nationale à Portefeuille, to the Company's knowledge, owns 3.9% of the Company's shares and 3.9% of the voting rights. Mr. Demarais, jr disclaims beneficial ownership of such shares.

\* Company names marked with an asterisk are publicly listed companies.

*Underlined companies are companies excluded from the group in which the director has his or her main duties.*

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### **Item 6 - A. Directors and Senior Management**

#### ***Charles Keller***

Born on November 15, 1980 (French).

Director representing employee shareholders.

A graduate of École Polytechnique and École des Hautes Etudes Commerciales (HEC), Mr. Keller joined the Group in 2005 at the refinery in Normandy as a performance auditor. In 2008, he was named Project Manager at the Grandpuits refinery to improve the site's energy efficiency and oversee its reliability plan. In 2010, he joined Exploration & Production and Yemen LNG as head of the Production Support department in charge of optimizing the plant. Since February 2014, he has been a reservoir engineer at the head office in La Défense. While performing his duties in the refining sector, Mr. Keller sat on the Works Committees of the two

refineries and contributed to the activities of the Central Workers' Council of UES Aval, first as an elected member and then as a union representative. Mr. Keller has been an elected member, representing holders of fund units, of the Supervisory Board of the TOTAL ACTIONNARIAT FRANCE collective investment fund since November 2012.

Director of TOTAL S.A. since May 17, 2013 and until 2016.

Member of the Audit Committee.

Holds 740 TOTAL shares and 58 units of the TOTAL ACTIONNARIAT FRANCE collective investment fund.

#### ***Principal other directorships***

None

#### ***Barbara Kux<sup>(1)</sup>***

Born on February 26, 1954 (Swiss).

Independent director.

Holder of an MBA (with honors) from INSEAD in Fontainebleau, Ms. Kux joined McKinsey & Company in 1984 as a Management Consultant, where she was responsible for strategic assignments for international groups. After serving as manager for development of emerging markets at ABB and then at Nestlé between 1989 and 1999, she was appointed Executive Director of Ford in Europe from 1999 to 2003. In 2003, Ms. Kux became a member of the Management Committee of the Philips group and, starting in 2005, was in charge of sustainable development. From 2008 to 2013, she was a member of the Management Board of Siemens AG. She has been responsible for sustainable development at the

group and in charge of the group's supply chain. Since 2013, she has been a member of the Supervisory Board of Henkel and a member of the Board of Directors of Firmenich S.A.

Director of TOTAL S.A. since 2011. Last renewal: May 16, 2014 until 2017.

Member of the Governance and Ethics Committee and member of the Strategic Committee.

Holds 1,000 shares.

*Principal other directorships*

Member of the Board of Directors of Firmenich S.A.  
Member of the Supervisory Board of Henkel\*  
Director of Pargesa Holding S.A.\* since May 6, 2014  
Director of Umicore\*

**Gérard Lamarche**(2)

Born July 15, 1961 (Belgian).

Independent director.

Mr. Lamarche graduated in economic science from Louvain-la-Neuve University and is also a graduate of the INSEAD business school (Advanced Management Program for Suez Group Executives). He also followed the Global Leadership Series training course at the Wharton International Forum in 1998-99. He started his career in 1983 at Deloitte Haskins & Sells in Belgium, before becoming a consultant in mergers and acquisitions in the Netherlands in 1987. In 1988, Mr. Lamarche joined Société Générale de Belgique as an investment manager and management controller between 1989 and 1991, then as a consultant in strategic operations from 1992 to 1995. He joined Compagnie Financière de Suez as a project manager for the Chairman and Secretary of the Executive Committee (1995-1997), before taking part in the merger between Compagnie de Suez and Lyonnaise des Eaux, which became Suez Lyonnaise des Eaux (1997), and then being appointed as the acting Managing Director in charge of Planning, Management Control and Accounts. In 2000, Mr. Lamarche pursued his career by branching into the industrial sector by joining NALCO (the American subsidiary of the Suez

group and the world leader in the treatment of industrial water) as the Director and Chief Executive Officer. In March 2004, he was appointed Chief Financial Officer of the Suez group. In April 2011, Mr. Lamarche became a director on the Board of Directors of Groupe Bruxelles Lambert (GBL). He has been the Deputy Managing Director since January 2012. Mr. Lamarche is currently a director of Lafarge, Legrand, TOTAL S.A. and SGS SA. He is also a non-voting member (censeur) on the Board of Directors of GDF Suez.

Director of TOTAL S.A. since 2012. Last renewal: May 17, 2013 until 2016.

Member of the Audit Committee and the Strategic Committee.

Holds 2,775 shares.

*Principal other directorships*

Deputy Managing Director and Director of Groupe Bruxelles Lambert\*  
Director and Chairman of the Audit Committee of Legrand\*  
Director of Lafarge\*  
Director of SGS SA\* (Switzerland)  
Non-voting member (*censeur*) of GDF Suez\*

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- (1) *Ms. Kux is a Director of Pargesa Holding S.A., part of Group Bruxelles Lambert, which acting in concert with Compagnie Nationale à Portefeuille, to the Company's knowledge, owns 3.9% of the Company's shares and 3.9% of the voting rights. Ms. Kux disclaims beneficial ownership of such shares.*
- (2) *Mr. Lamarche is Deputy Managing Director and a Director of Groupe Bruxelles Lambert, which acting in concert with Compagnie Nationale à Portefeuille, to the Company's knowledge, owns 3.9% of the Company's shares and 3.9% of the voting rights. Mr. Lamarche disclaims beneficial ownership of such shares.*
- \* *Company names marked with an asterisk are publicly listed companies.*  
*Underlined companies are companies excluded from the group in which the director has his or her main duties.*

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[Item 6 - A. Directors and Senior Management](#)

***Anne Lauvergeon***

Born on August 2, 1959 (French).

An Engineer of France's Corps des Mines engineering school and a graduate of École Normale Supérieure with a doctorate in physical science, Ms. Lauvergeon held various positions in industry before becoming Deputy Chief of Staff in the Office of the President of the Republic in 1990. She joined Lazard Frères et Cie as Managing Partner in 1995. From 1997 to 1999, she was Executive Vice President and member of the Executive Committee of Alcatel, where she was responsible for industrial partnerships and international affairs. Ms. Lauvergeon was Chairperson of the Management Board of the Areva Group from July 2001 to June 2011 and Chairperson and Chief Executive Officer of Areva NC (formerly Cogema) from June 1999 to June 2011. Since 2011, Ms. Lauvergeon has been Chairperson and Chief Executive Officer of ALP, and, since April 2014, Chairperson of the Board of Directors of SIGFOX.

Director of TOTAL S.A. since 2000. Last renewal: May 11, 2012 until 2015.

Member of the Strategic Committee.

Holds 2,000 shares.

*Principal other directorships*

Chairperson and Chief Executive Officer of ALP  
Director of [Airbus Group NV](#)\* (formerly EADS)  
Director of [American Express](#)\*  
Director of [Suez Environnement Company](#)\* since October 2014  
Director of [RIO TINTO](#)\* since March 2014  
Chairperson of the Board of Directors of [SIGFOX](#) since April 2014

***Michel Pébereau***<sup>(1)</sup>

Born on January 23, 1942 (French).

Honorary Inspector General of Finance, Mr. Pébereau held various positions in the Ministry of Economy and Finance, before serving, from 1982 to 1993, as Chief Executive Officer and then as Chairman and Chief Executive Officer of Crédit Commercial de France (CCF). He was Chairman and Chief Executive Officer of BNP then BNP Paribas from 1993 to 2003, Chairman of the Board of Directors from 2003 to 2011, and is currently Honorary Chairman of BNP Paribas, Chairman of the BNP Paribas foundation, and Chairman of the Centre des professions financières. He is also a member of the Académie des Sciences Morales et Politiques, member of the Policy Board of the Institut de l'Entreprise, Honorary Chairman of the Supervisory Board of the Institut Aspen and Chairman of the ARC foundation.

Director of TOTAL S.A. since 2000. Last renewal: May 11, 2012 until 2015.

Chairman of the Compensation Committee.

Holds 2,356 shares.

*Principal other directorships*

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Director of BNP Paribas\*  
Director of Airbus Group NV\* (formerly EADS)  
Director of Pargesa Holding S.A.\* (Switzerland)  
Member of the Supervisory Board of Banque Marocaine pour le Commerce et l'Industrie\*  
Director of BNP Paribas SA (Switzerland)  
Non-voting member (*censeur*) of Galeries Lafayette

### 1.2. Summary of changes in the composition of the Board of Directors (information as of February 11, 2015)

#### i. Changes in the composition of the Board of Directors in 2014:

At the Shareholders' Meeting of May 16, 2014, the directorships of Ms. Barbizet, Coisne-Roquette, Kux and Mr. Desmarais, jr were renewed for a 3-year term that will expire at the end of the Shareholders' Meeting held in 2017 to approve the financial statements for the 2016 fiscal year.

On November 4, 2014, Mr. Blanc was appointed director representing employees, also for a period of three years.

As of February 11, 2015, the Board of Directors has fourteen members, including one director appointed by the shareholders to represent the Group's employee shareholders, one director appointed by the Central Workers' Council to represent employees, and twelve other directors including seven independent directors, *i.e.*, 58.3%<sup>(2)</sup> of the directors (see C. Board Practices and Corporate Governance 5. Director independence, below).

The number of independent members of the Board of Directors is therefore higher than the number recommended by the AFEP-MEDEF Corporate Governance Code, to which the Company refers and which specifies that at least one half of the members of the Board at widely held companies with no controlling shareholders must be independent. According to the Code (point 9.2), neither directors representing employee shareholders nor directors representing employees are considered for the purposes of calculating this percentage.

#### ii. Board of Directors diversity policy:

The Board of Directors places a great deal of importance on its composition and that of its Committees. In particular, it relies on the work of the Governance and Ethics Committee, which reviews annually and proposes, as circumstances may require, desirable changes in the composition of the Board of Directors and Committees based on the Group's strategy.

The Governance and Ethics Committee conducts its work within the context of a formal procedure so as to ensure the complementarity of the Directors' competencies and the diversity of their profiles, maintain a rate of independence for the Board as a

<sup>(1)</sup> Mr. Pébereau is a Director of Pargesa Holding S.A., part of Group Bruxelles Lambert, which acting in concert with Compagnie Nationale à Portefeuille, to the Company's knowledge, owns 3.9% of the Company's shares and 3.9% of the voting rights. Mr. Pébereau disclaims beneficial ownership of such shares.

<sup>(2)</sup> Excluding the director representing employee shareholders and the director representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 9.2).

\* Company names marked with an asterisk are publicly listed companies.

Underlined companies are companies excluded from the group in which the director has his or her main duties.



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### **Item 6 - A. Directors and Senior Management**

whole that is relevant to the Company's governance structure and the structure of its shareholder base, strive for a balanced representation of men and women on the Board, and promote an appropriate representation of directors of different nationalities.

As part of an effort that began several years ago, the composition of the Board of Directors has changed significantly since 2010 to achieve a more balanced representation of men and women and an openness to more international profiles.

As of February 11, 2015, the Board of Directors had four members of foreign nationality (30.7%<sup>(1)</sup> of the directors) and five women (38.5%<sup>(2)</sup> of the directors, *i.e.*, a higher proportion of women than recommended in the AFEP-MEDEF Code).

According to the recommendations introduced in April 2010 in the AFEP-MEDEF Code regarding balanced representation of men and women on boards, the proportion of women on boards of directors was supposed to be at least 20% within three years of the 2010 Shareholders Meeting and should be at least 40% within six years of that same Shareholders Meeting<sup>(3)</sup>. These requirements were also stipulated in the French law of January 27, 2011 regarding balanced representation of men and women on boards of directors and supervisory boards and equal opportunity. Pursuant to this law, the 20% target must be reached by the end of the 2014 Shareholders Meeting and the 40% target must be reached by the end of the 2017 Shareholders Meeting.

The Board of Directors will continue its reflections on diversifying its composition in the years to come, with the aim of reaching the proportion of women on the Board of Directors at or above the level of 40% as set out in the law and in the AFEP-MEDEF Code and a high level of international representation.

#### **iii. Renewals of directorships proposed at the 2015 Shareholders Meeting:**

At its meeting of February 11, 2015, and further to a proposal by the Governance and Ethics Committee, the Board of Directors decided to propose at the Shareholders Meeting of May 29, 2015 that the directorships of Ms. Idrac and Mr. Artus be renewed for a 3-year term to expire at the end of the Shareholders Meeting held to approve the accounts of the 2017 fiscal year. Ms. Lauvergeon and Messrs. Pébereau and Collomb have not requested the renewal of their directorships.

Mr. Pouyanné's appointment as Director of the Company for a period of three years will also be submitted to vote at the Shareholders Meeting of May 29, 2015. If the proposed resolutions are approved, the Board of Directors would have twelve members at the end of the May 29, 2015 Shareholders Meeting (compared with fourteen previously).

#### **1.3. Other information**

At its meeting on September 15, 2009, the Board of Directors appointed Mr. Paris de Bollardière Secretary of the Board.

Representatives of the Workers Council: pursuant to Articles L. 2323-62 et seq. of the French Labor Code, four members of the Workers Council attended, with consultative rights, all meetings of the Board. Pursuant to Article L. 2323-65 of the same Code, as of November 4, 2014, namely the date of the appointment of the director representing employees on the Board of Directors, a single member of the Council attends the meetings of the Board.

## **2. General management**

### **2.1. Management form**

Following the death of the Chairman and Chief Executive Officer, the Board of Directors decided at its meeting of October 22, 2014, on the recommendation of the Governance and Ethics Committee, to separate the functions of Chairman and Chief Executive Officer in order to ensure the greatest possible continuity in the transition of the general management. The selected Management Form remains in effect until a decision to the contrary is made by the Board of Directors.

The Board of Directors thus appointed Mr. Pouyanné as Chief Executive Officer for a term of office due to expire at the end of the Shareholders Meeting called in 2017 to approve the financial statements for the fiscal year 2016. The Board furthermore appointed Mr. Desmarest as Chairman of the Board of Directors for a period due to expire on December 18, 2015, in light of the age limits set out in the bylaws. As of such date, the functions of Chairman and Chief Executive Office of TOTAL will be combined.

**Patrick Pouyanné, Chief Executive Officer of TOTAL**

President of the Executive Committee

Born on June 24, 1963 (French).

A graduate of École Polytechnique and a Chief Engineer of France's Corps des Mines engineering school, Mr. Pouyanné held various administrative positions in the Ministry of Industry and other cabinet positions (technical advisor to the Prime Minister in the fields of the Environment and Industry Edouard Balladur from 1993 to 1995, Cabinet Director for the Minister for Information and Aerospace Technologies François Fillon from 1995 to 1996) between 1989 and 1996.

In January 1997, he joined TOTAL's Exploration & Production division, first as Chief Administrative Officer in Angola, before becoming Group representative in Qatar and President of the Exploration and Production subsidiary in that country in 1999.

In August 2002, he was appointed President Finance, Economy and IT for Exploration & Production. In January 2006, he became President Strategy, Growth and Research in Exploration & Production and was appointed a member of the Group's Management Committee in May 2006.

*(1) Excluding the director who represents employees.*

*(2) Excluding the director who represents employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 6.4).*

*(3) According to the AFEP-MEDEF Code (point 6.4), directors representing employees are not considered for the purposes of calculating this percentage.*

*(4) According to Article L. 225-27-1 of the French Commercial Code, directors representing employees are not taken into consideration for the application of these provisions.*

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[Item 6 - B. Compensation](#)

In March 2011, Mr. Pouyanné was appointed Vice President, Chemicals, and Vice President, Petrochemicals. In January 2012, he became President, Refining & Chemicals and a member of the Group's Executive Committee.

On October 22, 2014, he was appointed Chief Executive Officer of TOTAL and President of the Group's Executive Committee.

Mr. Pouyanné holds 54,224 TOTAL shares and 7,286.44 units in the TOTAL ACTIONNARIAT FRANCE collective investment fund.

**2.2. The Executive Committee**

The Executive Committee, under the responsibility of the Chief Executive Officer, is the decision-making body of the Group.

It implements the strategy formulated by the Board of Directors and authorizes related investments, subject to the approval of the Board of Directors for investments exceeding 3% of the Group's equity or notification of the Board for investments exceeding 1% of equity.

In 2014, the Executive Committee met at least twice a month, except in August when it met only once.

As of December 31, 2014, the members of TOTAL's Executive Committee were as follows:

Patrick Pouyanné, Chief Executive Officer and President of the Executive Committee;  
Philippe Boisseau, President, Marketing & Services and President, New Energies;  
Arnaud Breuillac, President, Exploration & Production;  
Yves-Louis Darricarrère, President, Upstream and President, Gas & Power;  
Jean-Jacques Guilbaud, Chief Administrative Officer;  
Patrick de La Chevadière, Chief Financial Officer; and  
Philippe Sauquet, President, Refining & Chemicals.

**2.3. The Management Committee**

The Management Committee facilitates coordination among the Group's different entities and monitors the operating results of the operational divisions and the activity reports of the functional divisions.

In addition to the members of the Executive Committee, the following twenty-one individuals from various operating divisions and non-operating departments served as members of the Management Committee as of December 31, 2014:

*Corporate:* Helle Kristoffersen, Manuelle Lepoutre, Jean-François Minster, Jacques-Emmanuel Saulnier, Jérôme Schmitt, Maarten Scholten, Bernadette Spinoy, François Viaud.

*Upstream:* Marc Blaizot, Olivier Cleret de Langavant, Michel Hourcard.

*Refining & Chemicals:* Bertrand Deroubaix, Jean-Marc Jaubert, Jacques Maigné, Jean-Jacques Mosconi, Bernard Pinatel, Thomas Waymel.

*Marketing & Services:* Odile de Damas-Nottin, Francis Jan, Benoît Luc, Momar Nguer.

In addition, Humbert de Wendel is the Group's Treasurer.

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As from April 2, 2015, a Group Performance Management Committee will be instituted in place of the Group Management Committee, whose mission will then end. The mission of the Group Performance Management Committee is to examine, analyze and pilot the safety, financial and business results of the Group. The Committee, chaired by the Chief Executive Officer, will be composed of the managers in charge of the business units of the Group, as well as a limited number of Senior Vice Presidents of functions at Group (Communication, Human Resources, Legal Affairs, Safety and Strategy) and segment levels. It will meet monthly.

### B. COMPENSATION

#### Approach to overall compensation

TOTAL's approach to overall compensation (salary and employee benefits) is guided by the twin imperatives of external competitiveness, with salaries and social protection schemes positioned relative to local reference markets, and internal fairness. These shared principles are adapted in line with local factors such as labor laws, the economic context and the job market in the various countries where the Group operates.

When comparative elements are available, a compensation positioning at the market average is sought.

General and merit-based salary-raise campaigns take place yearly. Group companies may also use tools that reward collective performance (for example, in France, incentives and profit-sharing), together with base salary supplements, such as bonuses or variable portions, to better acknowledge individual contribution. The trend is towards individualized remuneration by strengthening rewards for individual performance.

The Health, Safety and Environment (HSE) aspect is also taken into account when evaluating individual and collective performance. A policy is pursued that recognizes HSE

performance by assessing the individual performance of managers and collective team performance. A portion of the managers' variable compensation is based on the achievement of HSE targets set for each business segment. It may also include individual HSE objectives, for which achievement is assessed during the annual appraisal. For the managers whose compensation includes a variable portion, HSE criteria can determine up to 10% of the variable portion. For all employees, the annual appraisal also includes an HSE target determined with the line manager. In addition, the three-yearly profit-sharing agreement for 2012-2014 applying to the oil and petrochemicals perimeter<sup>(1)</sup> in France included for the first time a component of remuneration that is conditional on reaching an HSE target assessed per business segment.

Moreover, 98% of the employees included in the 2014 WHRS are employed in countries where the law guarantees a minimum wage. For the remaining 2%, in the absence of legislation, the Group complies with the local agreements on pay (Company agreements or collective conventions) or builds its own pay structure, at the very least. The minimum compensation is always set in accordance with the above policy, which is based on external

<sup>(1)</sup> Including nine Upstream, Refining & Chemicals and Marketing & Services companies in France.

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### **Item 6 - B. Compensation**

benchmarks, thereby guaranteeing compensation above the locally applicable minimum. The general implementation of job weighting using the same evaluation method (the Hay method), which allows a salary range to be associated with each job level, ensures fair treatment internally.

The development of employee shareholding is another cornerstone of the Group's compensation policy. It is used to foster a good understanding of the Company's core values and to create a direct link with company performance. TOTAL thus grants performance shares to a significant number of employees (approximately 10,000) on the basis of the Group's achievement of overall economic goals (refer to 4. Stock option and free share grants policy, below).

In July 2014, the Board of Directors of TOTAL S.A. approved a performance share plan. This is the tenth plan implemented by the Group since the granting of free shares to employees has been permitted by French law and it ensures a significant replenishment rate with 39% of employees who were not beneficiaries the previous year.

The Group regularly invites its employees to subscribe to capital increases reserved for employees, the latest of which was launched in 2013. During this operation, 28,000 employees in 96 countries decided to subscribe to this capital increase, which, in

addition to a conventional scheme, offered a scheme securing the employee's investment with a guaranteed minimum return. A new operation is taking place in 2015, in approximately 106 countries, which offers the same schemes as in 2013, a classic formula and a leveraged formula. New for this operation is a matching contribution on the first five shares subscribed, which aims to encourage subscribers with modest saving capacity. This operation is carried out in two phases: a reservation period from November 28 to December 12, 2014, followed by a withdrawal/subscription period from March 14 to 20, 2015. The subscription price was set on March 13, 2015.

Moreover, TOTAL places the development of employee savings, wherever possible, at the heart of its Human Resources policy. For more detailed information, refer to D.2. Share ownership, below.

The pension and employee benefit programs in the Group's subsidiaries are improved every year (health, disability and life insurance). The Group also monitors legislative developments and adjusts these programs accordingly. A life insurance program paying a minimum of two years' salary in case of death, regardless of the cause, has been set up in a large majority of Group companies. The level of coverage under this program at year-end was 87% of the workforce included in the 2014 WHRS.

### **1. Board members' compensation**

The conditions applicable to Board members' compensation are defined by the Board of Directors on the proposal of the Compensation Committee, subject to the overall maximum amount of directors' fees authorized by the Shareholders' Meeting.

The overall maximum amount of directors' fees allocated to members of the Board of Directors was set at €1.4 million per fiscal year by the Shareholders' Meeting held on May 17, 2013.

In 2014, the overall amount of directors' fees due to the members of the Board of Directors was €1.34 million, noting that there were fourteen directors as of December 31, 2014.

The directors' fees for fiscal year 2014 are allocated according to a formula comprised of fixed compensation and variable compensation based on fixed amounts per meeting, which makes it possible to take into account each director's actual attendance at the meetings of the Board of Directors and its Committees, subject to the conditions below:

a fixed annual amount of €20,000 is to be paid to each director (calculated on a *pro rata* basis in case of a change during the year), apart from the Chairperson of the Audit Committee, who is to be paid €30,000 and the other Audit Committee members, who are to be paid €25,000;

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an amount of €5,000 per director for each Board of Directors meeting actually attended;  
an amount of €3,500 per director for each Governance and Ethics Committee, Compensation Committee or Strategic Committee meeting actually attended;  
an amount of €7,000 per director for each Audit Committee meeting actually attended;  
a premium of €2,000 for travel from a country outside France to attend a Board of Directors or Committee meeting;  
the Chief Executive Officer, or the Chairman and Chief Executive Officer if the positions are unified, does not receive directors fees for his work on the Board and Committees of TOTAL S.A.; and  
the total amount paid to each director is determined after taking into consideration the director's actual presence at each Board of Directors or Committee meeting and, if appropriate, after prorating the amount set for each director, such that the overall amount paid remains within the maximum limit set by the Shareholders Meeting.

Directors fees for a fiscal year are paid on the decision of the Board of Directors, following a proposal of the Governance and Ethics Committee, at the beginning of the next fiscal year. If the maximum amount authorized by the Shareholders Meeting is exceeded, the total amounts paid to each director are prorated.

The director representing employee shareholders, as well as the director representing employees, receive directors fees according to the same terms and conditions as any other director.

The table below presents the total compensation (including in-kind benefits) due and paid to each director and non-executive director (*mandataires sociaux*) during the last two fiscal years (Article L. 225-102-1 of the French Commercial Code, 1st and 2nd paragraphs).

Over the past two years, the directors currently in office have not received any compensation or in-kind benefits from companies controlled by TOTAL S.A.

Moreover, there is no service contract linking a director to TOTAL S.A. or any companies controlled by it which provides for benefits under such contract.

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**Table of directors' fees and other compensation due and paid to non-executive directors (AMF Table No. 3):**

Gross amount (€)	Fiscal year ended December 31, 2013		Fiscal year ended December 31, 2014	
	Amounts due	Amounts paid	Amounts due	Amounts paid
<b>Thierry Desmarest, Chairman of the Board since October 22, 2014</b>				
Directors' fees	89,500		101,500	89,500
Other compensation <sup>(a)</sup>	none	none	none	none
<b>Patrick Pouyanné, Chief Executive Officer since October 22, 2014 (non-director)</b>				
Directors' fees	n/a	n/a	none	none
Other compensation	n/a	n/a	(b)	(b)
<b>Christophe de Margerie, Chairman and Chief Executive Officer until October 20, 2014</b>				
Directors' fees	none	none	none	none
Other compensation	(b)	(b)	(b)	(b)
<b>Patrick Artus, director</b>				
Directors' fees	79,500		101,500	79,500
Other compensation	none		none	none
<b>Patricia Barbizet, director</b>				
Directors' fees	134,500		136,000	134,500
Other compensation	none		none	none
<b>Marc Blanc, director representing employees since November 4, 2014</b>				
Directors' fees <sup>(c)</sup>	n/a	n/a	8,178	
Other compensation	n/a	n/a	72,940	72,940
<b>Gunnar Brock, director</b>				
Directors' fees	102,500		115,000	102,500
Other compensation	none		none	none
<b>Claude Clément, director representing employee shareholders until May 17, 2013</b>				
Directors' fees	31,000		n/a	n/a
Other compensation	92,153	92,153	n/a	n/a
<b>Marie-Christine Coisne-Roquette, director</b>				
Directors' fees	129,500		126,000	129,500
Other compensation	none		none	none
<b>Bertrand Collomb, director</b>				
Directors' fees	67,500		81,000	67,500
Other compensation	none		none	none
<b>Paul Desmarais, jr, director</b>				
Directors' fees	47,000		56,000	47,000
Other compensation	none		none	none
<b>Anne-Marie Idrac, director</b>				
Directors' fees	75,500		77,000	75,500
Other compensation	none		none	none
<b>Charles Keller, director representing employee shareholders since May 17, 2013</b>				
Directors' fees <sup>(c)</sup>	36,000		93,083	36,000
Other compensation	64,586	64,586	74,244	74,244
<b>Barbara Kux, director</b>				
Directors' fees	79,000		104,000	79,000
Other compensation	none		none	none
<b>Gérard Lamarche, director</b>				
Directors' fees	143,500		156,000	143,500
Other compensation	none		none	none
<b>Anne Lauvergeon, director</b>				
Directors' fees	65,500		68,500	65,500
Other compensation	none		none	none
<b>Claude Mandil, director until May 16, 2014</b>				
Directors' fees	93,000		42,951	93,000

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Other compensation	none	none	none
<b>Michel Pébèreau, director</b>			
Directors' fees	77,500	74,000	77,500
Other compensation	none	none	none
<b>Total</b>	<b>1,407,739</b>	<b>156,739</b>	<b>1,487,896</b>

- (a) *Mr. Desmarest does not receive any specific compensation as Chairman of the Board. In relation to the previous duties that he performed within the Group until May 21, 2010, he receives a retirement pension from the pension plans set up by the Company (internal defined contribution pension plan, known as RECOSUP, and supplementary pension plan authorized by the Board of Directors on February 11, 2009, and approved by the Shareholders' Meeting on May 15, 2009).*
- (b) *For more information, refer to the summary compensation tables given in 2.5. Summary tables (AFEP-MEDEF Code / AMF position-recommendations No. 2009-16) , below. The Chief Executive Officer does not receive directors' fees as director of the Group's companies.*
- (c) *Messrs. Blanc and Keller chose for the entire term of their directorship to grant all their directors' fees to their trade union membership organizations.*



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### Item 6 - B. Compensation

#### **2. Compensation of the executive directors**

At its meeting on October 22, 2014, the Board of Directors, on the proposal of the Governance and Ethics Committee, decided to separate the positions of Chairman and Chief Executive Officer of TOTAL S.A. The Board of Directors considered such separation of powers to be the management form the most appropriate to the new situation within the Company following the death of Mr. de Margerie on October 20, 2014. The Board of Directors therefore appointed Mr. Pouyanné as Chief Executive Officer for a term expiring at the end of the Shareholders Meeting called in 2017 to approve the financial statements for the fiscal year 2016. The Board furthermore appointed Mr. Desmarest as Chairman of the Board of Directors for a period due to expire on December 18, 2015, in light of the age limits set out in the bylaws. As of such date, the functions of Chairman and Chief Executive Officer of TOTAL will be combined.

This new organization in the Group's powers prompted the Board of Directors during its meeting on October 28, 2014, to determine, on the proposals of the Compensation Committee and based on the general principles described hereinafter, the compensation policies for the Chairman of the Board and the Chief Executive Officer.

##### **2.1. General principles of the compensation policy for the executive directors**

The compensation policy for the executive directors is approved and reviewed every year by the Board of Directors on the proposal of the Compensation Committee. It is determined in accordance with the Principles and rules for determining the compensation and other benefits of the executive directors.

These principles and rules, approved by the Board of Directors at its meeting on February 9, 2012, are presented below:

Compensation and benefits for the executive directors are set by the Board of Directors after considering proposals from the Compensation Committee. Such compensation must be reasonable and fair, in a context that values both teamwork and motivation within the Company. Compensation for the executive directors is related to market practice, work performed, results obtained and responsibilities held.

Compensation for the executive directors includes both a fixed portion and a variable portion. The fixed portion is reviewed at least every two years. The amount of variable compensation is reviewed each year and may not exceed a stated percentage of fixed compensation. Variable compensation is determined based on pre-defined quantitative and qualitative criteria that are periodically reviewed by the Board of Directors. Quantitative criteria are limited in number, objective, measurable and adapted to the Group's strategy. Variable compensation is designed to reward short-term performance and progress towards medium-term objectives. The compensation is determined in line with the annual assessment of the performance of the executive directors and the Company's medium-term strategy.

The Board of Directors keeps track of the fixed and variable portions of the compensation of the executive directors over several years and in light of the Company's performance.

The Group does not have a specific pension plan for the executive directors. They are eligible for retirement benefits and pensions schemes available to certain employee categories in the Group under conditions determined by the Board. Stock options and performance shares are designed to align the long-term interests of the executive directors with those of the shareholders. The allocation of options and performance shares to the executive directors is examined in light of all the forms of compensation of each person.

The exercise price for stock options awarded is not discounted compared with the market price, at the time of the grant, for the underlying share.

Stock options and performance shares are awarded at regular intervals to prevent any opportunistic behavior.

The exercise of options and the definitive allocation of performance shares to which the executive directors are entitled are subject to performance criteria that must be met over several years.

The Board puts in place restrictions on the transfer of a portion of shares held upon the exercise of options and the definitive allocation of performance shares, applicable to the executive directors until the end of their term of office.

The executive directors may not be granted stock options or performance shares when they leave office.

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After three years in office, the executive directors are required to hold at least the number of Company shares set by the Board.  
The components of the compensation of the executive directors are made public after the Board of Directors' meeting at which they are approved.

These principles and rules are based on the fundamental principles for determining the compensation of the executive directors set out in the AFEP-MEDEF Code and ensure the consistency and stability of the compensation policy in line with the Group's strategy.

The Board of Directors and Compensation Committee pay special attention to ensuring that the compensation policy is structured to create long-term value for the Company (in particular by introducing non-financial performance indicators) and takes account of the responsibility assumed while remaining reasonable and fair, in a context that values teamwork and motivation within the Company. As such, the Company's bodies also ensure a balance among the various components of the Chief Executive Officer's compensation (fixed portion, variable portion and long-term compensation plan based on the allocation of performance shares).

The benefit accruing from participation in the pension plans is taken into consideration when determining the compensation policy applicable to the executive directors in line with the principles of the AFEP-MEDEF Code.

The relative position of the executive directors' compensation to that of comparable issuers (in particular, CAC 40 companies and issuers operating in the oil and gas sectors) is examined every year, if necessary on the basis of studies undertaken by specialized firms.

The executive directors do not take part in any discussions or deliberations of the corporate bodies regarding items on the agenda of Board of Directors' meetings related to the assessment of their performance or the determination of the components comprising their compensation.

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**2.2. Compensation for the Chairman of the Board****2.2.1. Compensation policy for the Chairman of the Board**

The Chairman of the Board does not receive any specific compensation for the performance of his term of office. This decision was made by the Board of Directors during its meeting on October 28, 2014, on the proposals of the Compensation Committee and after taking Mr. Desmarest's wishes into consideration.

The Chairman of the Board continues to receive directors' fees in relation to his duties as director. For more information, refer to 1. Board members' compensation, above.

**2.2.2. Individual compensation for the Chairman of the Board for fiscal year 2014**

For fiscal year 2014, the Chairman of the Board did not receive any compensation in his role as Chairman of the Board for the period from October 22 to December 31, 2014, other than his directors' fees. However, it should be noted that in relation to the previous duties that he performed within the Group until May 21, 2010, he receives a retirement pension from the pension plans set up by the Company (internal defined contribution pension plan, known as RECOSUP, and supplementary pension plan authorized by the Board of Directors on February 11, 2009, and approved by the Shareholders' Meeting on May 15, 2009).

**2.3. Compensation for the Chief Executive Officer****2.3.1. Compensation policy for the Chief Executive Officer****Compensation structure**

The Board of Directors determined the compensation structure for Mr. Pouyanné in his capacity as Chief Executive Officer during its meeting on October 28, 2014, on the proposals of the Compensation Committee. The compensation policy comprises a fixed portion and an annual variable portion assessed according to predefined criteria.

This compensation structure is intended to be supplemented by a long-term component with the allocation of performance shares as part of plans that are not specific to the Chief Executive Officer and which are structured over a five-year term with a three-year vesting period followed by a mandatory two-year shareholding period. The final grant of shares is subject to a continued employment condition and depends on the extent to which performance conditions have been achieved, which are assessed following the three-year vesting period.

The Chief Executive Officer does not receive any multi-year or deferred variable compensation or any extraordinary compensation. He does not receive directors' fees as director of the Group's companies.

Furthermore, the Company is committed to paying the Chief Executive Officer a retirement benefit and a termination payment in case of forced departure owing to a change of control or strategy. The Chief Executive Officer is also entitled to the pension plans in place within the Group. In line with the principles of the AFEP-MEDEF Code, the benefit accruing from participation in the pension plans has been taken into consideration when determining the compensation policy applicable to the Chief Executive Officer. These commitments are subject to performance conditions and are described in more detail hereinafter in 2.3.2. Commitments made by the Company to the Chief Executive Officer, below.

The Chief Executive Officer also has the use of a company car and is covered by the health insurance plan to which the Group's

employees are entitled, as well as a life insurance plan (death and disability), which is described in more detail hereinafter in 2.3.2. Commitments made by the Company to the Chief Executive Officer, below.

**Compensation policy for fiscal year 2014**

The Board of Directors defined the compensation elements for Mr. Pouyanné in his capacity as Chief Executive Officer for fiscal year 2014 during its meeting on October 28, 2014, as follows:

**a. Base salary**

The annual fixed compensation for the Chief Executive Officer was set at €1,200,000 Euros (*i.e.*, fixed compensation of €233,425 for the period from October 22 to December 31, 2014). The positioning of the Chief Executive Officer's fixed compensation was set in relation to the responsibilities held and taking account of the compensation practices for executive directors of comparable companies (in particular, CAC 40 companies and issuers operating in the energy sectors).

**b. Annual variable portion**

In accordance with the recommendations made in the AFEP-MEDEF Code, the Board of Directors decided to set the maximum percentage for the annual variable portion likely to be paid to the Chief Executive Officer at 165% of the annual fixed compensation, after reviewing practices at a reference sample of companies operating in the energy sectors. The type and weight of the criteria used to determine the Chief Executive Officer's variable portion were chosen after confirming their relevance to the Group's strategic priorities.

The formula used to calculate the Chief Executive Officer's annual variable portion involves economic parameters that refer to quantitative targets reflecting the Group's performance, a HSE/CSR parameter (Health, Safety and Environment/Corporate Social Responsibility), a parameter relating to the reduction in operating costs and a parameter associated with the Chief Executive Officer's personal contribution, which allows a qualitative assessment of his management.

**Annual variable compensation for fiscal year 2014 (expressed as a percentage of the base salary)**

	Maximum percentage
Economic parameters:	100%
ROE	50%
Net earnings per share	25%
Net income	25%
HSE/CSR parameter	16%
Reduction in operating costs	16%
Personal contribution	33%
<b>Total</b>	<b>165%</b>

**Economic parameters**

The chosen economic parameters include:

return on equity (ROE) for up to 50% of the base salary; and  
the Company's results, in comparison with the results of the four major competing oil companies (ExxonMobil, BP, Royal Dutch Shell and Chevron), assessed by reference to the average growth over three years of two indicators: earnings per share and net income. Each indicator has a weighting of up to 25% of the base salary.

The expected levels of attainment of the quantitative economic parameter targets for determining the Chief Executive Officer's

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variable portion were clearly defined by the Board of Directors, but have not been made public for reasons of confidentiality.

#### HSE/CSR parameter

HSE performance (Health, Safety and Environment), which is mainly measured according to attainment of the annual TRIR (Total Recordable Injury Rate) target, associated with CSR performance (Corporate Social Responsibility), measured in particular according to attainment of the CO<sub>2</sub> and energy efficiency targets and the Group's position in the rankings of non-financial rating agencies, is chosen as a parameter for up to 16% of the base salary.

#### Parameter relating to the reduction in operating costs

Achievement of the targets relating to the reduction in operating costs is chosen as a parameter for up to 16% of the base salary.

#### Personal contribution

The Chief Executive Officer's personal contribution is based on three objective and operational target criteria concerning the Group's business segments. The weight of the personal contribution criteria represents up to 33% of the base salary, with each criterion accounting for no more than 11% of the base salary.

These criteria are as follows:

- successful managerial transition;
- achievement of production and reserve targets; and
- successful strategic negotiations with producing countries.

#### **Compensation policy for fiscal year 2015**

The Board of Directors during its meeting on February 11, 2015 and based on the proposals of the Compensation Committee, defined the compensation policy of the Chief Executive Officer for fiscal year 2015.

It decided the compensation elements for Mr. Pouyanné in his capacity as Chief Executive Officer for fiscal year 2015 will comprise an annual fixed compensation of €1,200,000 Euros (unchanged compared to the amount defined by the Board of Direction during its meeting on October 28, 2014) and a variable portion likely to be paid in 2016 set at a maximum of 165% of the annual fixed compensation, after reviewing practices at a reference sample of companies operating in the energy sectors. The Board of Directors decided to maintain the type of the criteria used to determine the Chief Executive Officer's variable compensation for fiscal year 2015, but modified the respective weight of the economic parameters, as follows:

#### **Annual variable compensation for fiscal year 2015 (expressed as a percentage of the base salary)**

	Maximum percentage
Economic parameters:	100%
ROE	34%
Net earnings per share	33%
Net income	33%
HSE/CSR parameter	16%
Reduction in operating costs	16%
Personal contribution	33%
<b>Total</b>	<b>165%</b>

The expected levels of attainment of the quantitative economic parameter targets for determining the Chief Executive Officer's variable portion were clearly defined by the Board of Directors during its meeting on February 11, 2015, but have not been made public for reasons of confidentiality.

#### **2.3.2. Commitments made by the Company to the Chief Executive Officer (Article L. 225-102-1, paragraph 3, of the French Commercial Code)**

The commitments made to the Chief Executive Officer regarding pension and life insurance plans, retirement benefit and termination payment to be paid in the event of a forced departure owing to a change of control or strategy, as described below, were approved by the Board of Directors on October 22, 2014 and confirmed by the Board of Directors' decision on December 16, 2014. Such commitments will be subject to the Shareholders' Meeting on May 29, 2015, in

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accordance with Article L. 225-42-1 of the French Commercial Code.

It should be noted that Mr. Pouyanné was already entitled to all these provisions when he was an employee of the Company, except for the commitment to be granted a termination payment in case of forced departure owing to a change of control or strategy. Furthermore, Mr. Pouyanné joined the Group on January 1, 1997, and terminated the employment contract that previously bound him to TOTAL S.A. by resignation when he was appointed Chief Executive Officer on October 22, 2014.

### **Pension plans**

Pursuant to law, the Chief Executive Officer is eligible for the basic French social security pension and for pension benefits under the ARRCO (*Association pour le régime de retraite complémentaire des salariés*) and AGIRC (*Association générale des institutions de retraite des cadres*) government-sponsored supplementary pension schemes.

He also participates in the internal defined contribution pension plan, known as RECOSUP. This pension plan represented a booked expense to the Company in favor of the Chief Executive Officer for fiscal year 2014 of €2,253.

The Chief Executive Officer also participates in a defined benefit supplementary pension plan set up and financed by the Company, which was approved by the Board of Directors on March 13, 2001, and for which management is outsourced to two insurance companies, effective as of January 1, 2012. This plan applies to all employees of the Group whose annual compensation is greater than eight times the ceiling for calculating French social security contributions (€38,040 in 2015), ceiling above which there is no conventional pension plan.

To be eligible for this plan, participants must have at least five years' length of service, must be over the age of sixty and must have claimed their French social security pension. To be entitled to the supplementary pension plan, participants must also still be employed by the Company when claiming their pension rights, unless they retire due to disability or have taken early retirement at the Group's initiative after the age of fifty-five.

The plan provides participants with a pension equal to the sum of 1.8% of the portion of the reference compensation between eight and forty times the annual ceiling for calculating French social security contributions and 1% of the reference compensation between forty and sixty times the annual ceiling for calculating French social security contributions, multiplied by the number of years of service (up to twenty years). The basis for the calculation of this supplementary plan is indexed to changes in the ARRCO pension point. The compensation taken into account to calculate the supplementary pension is the retiree's last 3-year average gross compensation (fixed and variable portions).

The sum of the supplementary pension plan benefits and other pension plan benefits (other than those constituted individually and

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on a voluntary basis) may not exceed 45% of the compensation used as the calculation basis. In the event this ceiling is exceeded, the supplementary pension is reduced accordingly.

The supplementary pension includes a clause, whereby up to 60% of the amount will be paid to beneficiaries in the event of death after retirement.

The length of service acquired by Mr. Pouyanné in performing his previous salaried duties in the Group since January 1, 1997, has been maintained.

The commitments made to the Chief Executive Officer by TOTAL S.A. under the terms of the defined benefit supplementary pension plans and similar plans would, thus, as of December 31, 2014, represent a gross annual retirement pension estimated at €474,109, *i.e.* 27.73% of the gross annual compensation of Mr. Pouyanné composed of the fixed annual portion as Chief Executive Officer (*i.e.*, €1,200,000) and the variable portion previously paid in 2014 and due for fiscal year 2013 in respect of his previous duties as President of Refining & Chemicals (*i.e.*, €509,700).

The Group's commitments related to these defined benefit supplementary pension plans and similar plans (including the retirement benefit) are outsourced to insurance companies for almost their entire amount, the remaining balance being evaluated on an annual basis and adjusted through a provision in the accounts. The Group's commitments amount, as of December 31, 2014, to €19 million for the Chief Executive Officer (€37.6 million for the Chief Executive Officer, non-executive directors and the former non-executive directors participating in these plans). These amounts represent the gross value of the Group's commitments to these beneficiaries based on the gross annual pensions estimated as of December 31, 2014 as well as a statistical life expectancy of the beneficiaries. They also include the additional tax contribution for an amount of 45% on pensions that exceed eight annual ceilings for calculating French social security contributions, payable by the Company to the French administration in charge of collecting social security contributions (URSSAF) (*i.e.*, €5.6 million for the Chief Executive Officer and €11.2 million for the Chief Executive Officer, non-executive directors and the concerned former non-executive directors).

The sum of all the pension plans in which Mr. Pouyanné participates would, as of December 31, 2014, represent a gross annual retirement pension estimated at €610,300, *i.e.*, 35.70% of the Chief Executive Officer's gross annual compensation defined above (fixed annual portion as Chief Executive Officer and variable portion previously paid in 2014 and due for fiscal year 2013 in respect of his previous duties as President of Refining & Chemicals).

In line with the principles used to determine the compensation of the executive directors as set out in the AFEP-MEDEF Code which the Company uses as a reference, the Board of Directors has taken account of the advantage conferred through participation in the pension plans when determining the Chief Executive Officer's compensation.

**Termination payment and retirement benefit***Retirement benefit*

The Chief Executive Officer is entitled to a retirement benefit equal to that available to eligible members of the Group under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit amounts to 25% of the gross annual compensation (fixed and variable portions) received during the 12-month period preceding the executive director's retirement.

Pursuant to the provisions of Article L. 225-42-1 of the French Commercial Code, entitlement to this benefit is subject to the performance conditions detailed below.

The retirement benefit cannot be combined with the termination payment described below.

*Termination payment*

If the Chief Executive Officer is removed from office or his term of office is not renewed by the Company, he is entitled to a payment equal to two years' gross annual compensation. The calculation is based on the gross compensation (fixed and variable portions) of the 12-month period preceding the date of termination or non-renewal of his term of office.

The termination payment will only be paid in the event of a forced departure owing to a change of control or strategy. It will not be due in cases of gross negligence or willful misconduct or if the Chief Executive Officer leaves the Company of his own volition, accepts new responsibilities within the Group, or may claim full retirement benefits within a short time period.

Pursuant to the provisions of Article L. 225-42-1 of the French Commercial Code, entitlement to this benefit is subject to the performance conditions detailed below.

*Performance condition*

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In accordance with Article L. 225-42-1 of the French Commercial Code, the Board of Directors decided, at its meeting on December 16, 2014, to make entitlement to termination payment and a retirement benefit contingent upon a performance condition that is considered to be fulfilled if at least two of the three criteria set out below are met:

the average ROE (return on equity) over the three years preceding the year in which the executive director retires is at least 12%;

the average ROACE (return on average capital employed) over the three years preceding the year in which the executive director retires is at least 10%;  
and

TOTAL's oil and gas production growth over the three years preceding the year in which the executive director retires is greater than or equal to the average production growth rate of the four other major competing international oil companies: ExxonMobil, Royal Dutch Shell, BP and Chevron.

These criteria were selected to take into account the Company's general interest, shareholders' interests and standard market practice, especially in the oil and gas industry.

More specifically, the ROE performance criterion was retained because it allows these benefits to be tied to the Company's overall shareholder return. Shareholders can use ROE to gauge the Company's ability to generate profit from the capital they invested and from prior year earnings reinvested in the Company.

ROACE, a criterion used by most oil and gas companies, was also retained because it allows the assessment of the operational performance of average capital employed, regardless of whether it is funded by equity or debt. ROACE is an indicator of the return on capital employed by the Company for operational activities and, as a result, allows for the possibility of making payment of termination payment and retirement benefit contingent upon the value created for the Company.

The third and last criterion used by the Board of Directors is the Group's oil and gas production growth compared with that of its competitors. This indicator is widely used in the industry to measure operational performance and the ability to ensure the



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sustainable development of the Group, most of whose capital expenditure is allocated to Upstream activities.

#### Life insurance plan

The Chief Executive Officer is covered by a life insurance plan at the expense of the Company and taken out from a life insurance company. This plan guarantees, upon death, a payment equal to two years' gross compensation (fixed and variable portions), increased to three years in case of accidental death and, in the event of permanent disability due to an accident, a payment proportional to the degree of disability. This payment is increased by 15% for each dependent child.

#### 2.3.3. Compensation due to the Chief Executive Officer for fiscal year 2014

In accordance with the compensation policy defined by the Board of Directors, the compensation due to Mr. Pouyanné as Chief Executive Officer for the period between October 22, 2014 and December 31, 2014, was determined by the Board of Directors at its meeting on February 11, 2015, further to the proposals of the Compensation Committee.

This compensation consists of a base salary (fixed portion) on a *pro rata* basis of €233,425 together with a variable portion (paid in 2015) amounting to €295,469 on a *pro rata* basis, which corresponds to 126.58% of his fixed compensation which was determined as follows.

At its meeting on February 11, 2015, the Board of Directors examined the extent to which the different performance criteria had been achieved (economic parameters, HSE/CSR parameter, and the parameter relating to the reduction in operating costs), as well as the Chief Executive Officer's personal contribution assessed on the basis of the three objective and operational target criteria concerning the Group's business segments pre-determined by the Board of Directors.

Concerning the economic parameters, the Board of Directors noted that the Group's performance, in comparison with its main competitors (in terms of earnings per share and net income), improved in 2014 compared to 2013, but the ROE declined compared to 2013, which led the Board of Directors to set the part allocated for the different economic parameters at 68.58% of the fixed compensation for fiscal year 2014 (against a maximum of 100%).

In terms of the HSE/CSR criterion, the Board of Directors noted that the majority of objectives had been achieved, which led the portion in respect to this criterion to be set at 14% of the fixed compensation (against a maximum of 16%).

Concerning the parameter relating to the reduction in operating costs, the Board of Directors noted that the objective measured in terms of impact on the Group's operating result had been mostly achieved, which led the portion in respect to this criterion to be set at 14% of the fixed compensation (against a maximum of 16%).

Concerning the personal contribution, the Board of Directors considered that most of the objectives that had been set were achieved, particularly the targets relating to successful managerial transition and successful strategic negotiations with producing countries. The Chief Executive Officer's personal contribution was then set to 30% of the fixed compensation (against a maximum of 33%).

In consideration of the level of attainment and the performance achieved, the Board of Directors has set the Chief Executive Officer's variable compensation for fiscal year 2014, for the period from October 22 to December 31, 2014 at 126.58% of his fixed compensation, *i.e.*, an amount of €295,469 on a *pro rata* basis.

#### Annual variable compensation due for fiscal year 2014 (expressed as a percentage of the base salary):

	Maximum percentage	Percentage allocated
Economic parameters:	100%	68.58
ROE	50%	34.37
Net earnings per share	25%	16.35
Net income	25%	17.86
HSE/CSR parameter	16%	14
Reduction in operating costs	16%	14
Personal contribution	33%	30
<b>Total</b>	<b>165%</b>	<b>126.58%</b>

For information purposes, it should furthermore be noted that before his appointment as Chief Executive Officer on October 22, 2014, Mr. Pouyanné was paid a fixed compensation of €483,288 and a variable portion relating to this period and defined according to the pre-determined general rules applicable to the Group's executive officers amounted to €473,806 in respect of his salaried duties as President of Refining & Chemicals for the period from January 1 to October 21, 2014.

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Thus, the compensation paid to Mr. Pouyanné in 2015, both in respect of his previous salaried duties as President of Refining & Chemicals (*i.e.*, a variable portion on a *pro rata* basis due for fiscal year 2014) and his duties as Chief Executive Officer (*i.e.*, a fixed portion due for fiscal year 2015 and a variable portion on a *pro rata* basis due for fiscal year 2014) will therefore be €1,969,275.

Furthermore, in 2014, Mr. Pouyanné had the use of a company car and was covered by the life insurance plan as described above. These benefits were booked in the amount of €23,551 in the Consolidated Financial Statements at December 31, 2014.

Mr. Pouyanné did not benefit from any other forms of compensation due or granted for fiscal year 2014. No multi-year or deferred variable compensation or any extraordinary compensation was awarded for fiscal year 2014.

It should be pointed out that the Chief Executive Officer does not receive directors' fees as director of the Group's companies.

### **2.4. Compensation for the former Chairman and Chief Executive Officer**

#### ***2.4.1. Compensation for the former Chairman and Chief Executive Officer for fiscal year 2014***

The compensation paid to Mr. de Margerie as Chairman and Chief Executive Officer for the period between January 1 and October 20, 2014, was approved by the Board of Directors at its meeting on February 11, 2015, further to the proposal of the Compensation Committee, in accordance with the compensation policy defined by the Board of Directors at its meeting on February 11, 2014.

This compensation consists of a fixed portion (amount unchanged since 2010) on a *pro rata* basis of €1,208,219; together with a variable portion on a *pro rata* basis (paid in 2015) amounting to €1,505,199, which corresponds to 124.58% (against a maximum of 180%) of his fixed annual compensation which was determined as follows.

At its meeting on February 11, 2015, the Board of Directors, after reviewing the attainment of the economic parameters as well as the Chairman and Chief Executive Officer's personal contribution, set the variable portion on a *pro rata* basis of the Chairman and Chief Executive Officer's compensation for fiscal year 2014 at 124.58% of his annual fixed compensation, *i.e.*, €1,505,199

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(compared with 132.48%, *i.e.*, €1,987,200 for fiscal year 2013). 68.58% relates to the share for the different selected economic parameters and 56% to the share for the personal contribution of the Chairman and Chief Executive Officer determined according to six pre-determined and clearly defined criteria.

Concerning the economic parameters of the Group's performance, in comparison with its main competitors (in terms of earnings per share and net income), improved in 2014 compared to 2013, but the ROE declined compared to 2013, which led to a decrease of the portion allocated for the different economic parameters compared to the previous fiscal year (68.58% of the fixed compensation for fiscal year 2014 compared with 77.48% for fiscal year 2013).

Concerning the personal contribution, the Board of Directors considered that most of the objectives were achieved, particularly the targets in terms of Safety, Corporate Social Responsibility (CSR) and the success of strategic negotiations in producing countries. This personal contribution was then set to 56% (against a maximum of 80%) for fiscal year 2014 compared to 55% (against a maximum of 80%) for fiscal year 2013.

The variable portion owed to Mr. de Margerie as Chairman and Chief Executive Officer until October 20, 2014, was paid to his beneficiaries in 2015.

Mr. de Margerie did not benefit from any other forms of compensation due or granted for fiscal year 2014. The Board of Directors did not award any multi-year or deferred variable compensation or any extraordinary compensation for fiscal year 2014.

It should also be noted that Mr. de Margerie did not receive directors' fees as director of TOTAL S.A. or any other company of the Group.

The Chairman and Chief Executive Officer was covered by a life insurance plan at the expense of the Company, and taken out from a life insurance company, which guaranteed, upon death, a payment equal to two years' gross compensation (fixed and variable portions), increased to three years in case of accidental death. The life insurance company paid this sum to Mr. de Margerie's beneficiaries. Mr. de Margerie also continued to have the use of a company car until October 20, 2014. These benefits were booked in the amount of €53,350 in the Consolidated Financial Statements at December 31, 2014.

Mr. de Margerie's death terminated the commitments to pay a retirement benefit and a termination payment in case of forced departure owing to a change of control or strategy, which had been granted in his capacity as Chairman and Chief Executive Officer. His death also terminated the commitments that had been granted under the terms of the defined benefit supplementary pension plan and the internal defined contribution pension plan, known as RECOUP. The capital relating to the internal defined contribution pension plan (RECOUP) was paid to Mr. de Margerie's beneficiaries.

#### 2.4.2. *Grant of performance shares in 2014*

Pursuant to the authorization of the Company's Combined Shareholders' Meeting of May 16, 2014 (sixteenth resolution) and further to the proposal of the Compensation Committee, the Board of Directors decided, at its meeting on July 29, 2014, to grant Mr. de Margerie 48,000 outstanding performance shares of the Company (corresponding to 0.0020% of the share capital on the grant date). The shares were awarded as part of a broader share grant plan approved by the Board of Directors on July 29, 2014 related to 0.19% of the share capital for nearly 10,000 beneficiaries.

The number of shares granted (48,000 performance shares) was lower compared with the previous fiscal year (53,000). As in 2012 and 2013, no stock options were awarded to the Chairman and Chief Executive Officer in 2014.

In addition, the Board of Directors decided that, subject to a continuous employment condition, the number of shares finally granted to the Chairman and Chief Executive Officer would be subject to two performance conditions (described in Note 25 to the Consolidated Financial Statements).

Following the death of Mr. de Margerie, and pursuant to legal provisions, the former Chairman and Chief Executive Officer's beneficiaries have the possibility to request the grant of all the performance shares for a period of six months following the date of death.

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**2.5. Summary tables (AFEP-MEDEF Code / AMF position-recommendations No. 2009-16)**

Summary of compensation for each executive director (AMF Table No. 2):

(€)	Fiscal year ended December 31, 2013		Fiscal year ended December 31, 2014	
	Amount due for the fiscal year	Amount paid during the fiscal year <sup>(a)</sup>	Amount due for the fiscal year	Amount paid during the fiscal year <sup>(a)</sup>
<b>Thierry Desmarest</b> , Chairman of the Board since October 22, 2014				
Fixed compensation	n/a	n/a		
Annual variable compensation	n/a	n/a		
Multi-year variable compensation	n/a	n/a		
Extraordinary compensation	n/a	n/a		
Directors' fees <sup>(b)</sup>	n/a	n/a	101,500	
In-kind benefits	n/a	n/a		
<b>Total</b>	<b>n/a</b>	<b>n/a</b>	<b>101,500</b>	
<b>Patrick Pouyanné</b> , Chief Executive Officer since October 22, 2014 <sup>(c)</sup>				
Fixed compensation	n/a	n/a	233,425	233,425
Annual variable compensation <sup>(d)</sup>	n/a	n/a	295,469	
Multi-year variable compensation	n/a	n/a		
Extraordinary compensation	n/a	n/a		
Directors' fees	n/a	n/a		
In-kind benefits <sup>(e)</sup>	n/a	n/a	23,551	23,551
<b>Total</b>	<b>n/a</b>	<b>n/a</b>	<b>552,445</b>	<b>256,976</b>
<b>Christophe de Margerie</b> , Chairman and Chief Executive Officer until October 20, 2014				
Fixed compensation	1,500,000	1,500,000	1,208,219	1,208,219
Annual variable compensation	1,987,200	1,741,000	1,505,199	1,987,200
Multi-year variable compensation				
Extraordinary compensation				
Directors' fees				
In-kind benefits <sup>(f)</sup>	56,472	56,472	53,350	53,350
<b>Total</b>	<b>3,543,672</b>	<b>3,297,472</b>	<b>2,766,768</b>	<b>3,248,769</b>

<sup>(a)</sup> Variable portion paid for the prior fiscal year.<sup>(b)</sup> For information purposes, it should be noted that before his appointment as Chairman of the Board of Directors on October 22, 2014, Mr. Desmarest was paid €89,500 in Directors' fees in 2014, in respect of fiscal year 2013 in his capacity as Director of the Company (refer to Table No. 3 in 1. Board members compensation, above).<sup>(c)</sup> For information purposes, it should be noted that before his appointment as Chief Executive Officer on October 22, 2014, Mr. Pouyanné was paid a fixed compensation of €483,288 and a variable portion defined according to the pre-determined general rules applicable to the Group's executive officers and amounting to €473,806 in respect of his salaried duties as President of Refining & Chemicals for the period from January 1 to October 21, 2014.<sup>(d)</sup> For further details of the parameters used to calculate the Chief Executive Officer's variable portion, refer to 2.3.3. Compensation due to the Chief Executive Officer for fiscal year 2014, above.<sup>(e)</sup> Mr. Pouyanné has the use of a company car and is covered by a life insurance plan paid by the Company (refer to 2.3.2. Commitments made by the Company to the Chief Executive Officer, above).<sup>(f)</sup> Mr. de Margerie had the use of a company car and was covered by a life insurance plan at the expense of the Company and taken out from a life insurance company.

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**Summary of compensation, stock options and performance shares awarded to each executive director (AMF Table No. 1):**

For the year ended	2013	2014
<b>Thierry Desmarest</b> , Chairman of the Board since October 22, 2014		
Compensation due in respect of the fiscal year (€) (detailed in AMF Table No. 2 above)	n/a	101,500
Valuation of multi-year variable compensation awarded during the fiscal year (€)	n/a	
Accounting valuation of the stock options awarded during the fiscal year (€)	n/a	
Accounting valuation of performance shares awarded during the fiscal year (€ <sup>y</sup> )	n/a	
Number of performance shares awarded during the fiscal year	n/a	
<b>Total</b>	<b>n/a</b>	<b>101,500</b>
<b>Patrick Pouyanné</b> , Chief Executive Officer since October 22, 2014		
Compensation due in respect of the fiscal year (€) (detailed in AMF Table No. 2 above)	n/a	552,445
Valuation of multi-year variable compensation awarded during the fiscal year (€)	n/a	
Accounting valuation of the stock options awarded during the fiscal year (€)	n/a	
Accounting valuation of performance shares awarded during the fiscal year (€ <sup>y</sup> )	n/a	1,116,500 <sup>(b)</sup>
Number of performance shares awarded during the fiscal year	n/a	25,000 <sup>(b)</sup>
<b>Total</b>	<b>n/a</b>	<b>1,668,945</b>
<b>Christophe de Margerie</b> , Chairman and Chief Executive Officer until October 20, 2014		
Compensation due in respect of the fiscal year (€) (detailed in AMF Table No. 2 above)	3,543,672	2,766,768
Valuation of multi-year variable compensation awarded during the fiscal year (€)		
Accounting valuation of the stock options awarded during the fiscal year (€)		
Accounting valuation of performance shares awarded during the fiscal year (€ <sup>y</sup> )	1,729,920	2,143,680
Number of performance shares awarded during the fiscal year	53,000	48,000
<b>Total</b>	<b>5,273,592</b>	<b>4,910,448</b>

Note: The valuation of the options and performance shares awarded corresponds to a valuation performed in accordance with IFRS 2 (see Notes 1e and 25 to the Consolidated Financial Statements) and not to any compensation actually received during the fiscal year. Entitlement to performance shares is subject to fulfillment of performance conditions assessed over a three-year period.

(a) For more information, refer to AMF Table No. 6 below. The valuation of performance shares awarded was calculated on the day they were awarded (see Note 1e to the Consolidated Financial Statements).

(b) Performance shares were granted prior to Mr. Pouyanné's appointment as Chief Executive Officer and related to his previous salaried duties.

**Stock options awarded in 2014 to each executive director by the issuer and by any Group company (AMF Table No. 4):**

	Plan date and No.	Nature of options (purchase or subscription)	Valuation of options (€ <sup>y</sup> )	Number of options awarded during fiscal year	Exercise price	Exercise period
<b>Executive directors</b>						
<b>Thierry Desmarest</b> ,						
Chairman of the Board						
since October 22, 2014						
<b>Patrick Pouyanné</b> ,						
Chief Executive Officer						
since October 22, 2014						
<b>Christophe de Margerie</b> ,						
Chairman and Chief Executive Officer						
until October 20, 2014						

*(a) According to the method used for the Consolidated Financial Statements.*

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**Performance shares awarded in 2014 to each executive director by the issuer and by any Group company (Extract from AMF Table No. 6):**

	Plan date and No.	Number of shares awarded during fiscal year	Valuation of shares (€ <sup>(a)</sup> )	Acquisition date	Date of transferability	Performance conditions
<b>Thierry Desmarest</b>						
Chairman of the Board						
since October 22, 2014						
<b>Patrick Pouyanné<sup>(b)</sup></b>	2014 Plan 07/29/2014	25,000	1,116,500	07/30/2017	07/30/2019	For 100% of the shares, the condition is based on the Group's average ROE in 2014, 2015 and 2016.
Chief Executive Officer						
since October 22, 2014						
<b>Christophe de Margerie</b>	2014 Plan 07/29/2014	48,000 <sup>(c)</sup>	2,143,680	07/30/2017	07/30/2019	For 50% of the shares, the condition was based on the Group's average ROE in 2014, 2015 and 2016. For 50% of the shares, the condition was based on the Group's average ROACE in 2014, 2015 and 2016.
Chairman and Chief Executive Officer until October 20, 2014						

<sup>(a)</sup> The valuation of performance shares was calculated on the day they were awarded, according to the method used for the Consolidated Financial Statements.

<sup>(b)</sup> Performance shares were granted prior to Mr. Pouyanné's appointment as Chief Executive Officer and related to his previous salaried duties.

<sup>(c)</sup> Following the death of Mr. de Margerie, and pursuant to legal provisions, the former Chairman and Chief Executive Officer's beneficiaries have the possibility to request the grant of all the performance shares within a period of six months following the date of death.

**AMF Table No. 11:**

Executive directors	Employment contract	Supplementary pension plan	Payments or benefits due or likely to be due upon termination or change in duties	Benefits related to a non-compete agreement
<b>Thierry Desmarest</b>	NO	(a)	NO	NO
Chairman of the Board				
Start of term of office: October 22, 2014				
End of current term of office: December 18, 2015				
<b>Patrick Pouyanné</b>	NO	YES	YES <sup>(b)</sup>	NO
Chief Executive Officer				
		Internal defined supplementary pension plan and defined	Termination payment	

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Start of term of office: October 22, 2014	contribution pension plan known as RECOSUP			
End of current term of office:			Retirement benefit	
Shareholders Meeting held in 2017 to approve the financial statements for fiscal year 2016 <b>Christophe de Margerie</b> <sup>(c)</sup>	NO	YES	YES	NO
Chairman and Chief Executive Officer				
Start of term of office: February 2007	Internal defined supplementary pension plan and defined contribution pension plan known as RECOSUP		Termination payment	
			Retirement benefit	
End of term of office: October 20, 2014				

<sup>(a)</sup> Note that in relation to the previous duties that he performed within the Group until May 21, 2010, the Chairman of the Board is paid a retirement pension from the pension plans set up by the Company (internal defined contribution pension plan, known as RECO SUP, and supplementary pension plan authorized by the Board of Directors on February 11, 2009, and approved by the Shareholders Meeting on May 15, 2009).

<sup>(b)</sup> Payment subject to a performance condition in accordance with the decision of the Board of Directors on February 28, 2014, and confirmed on December 16, 2014. Details of these commitments are set out above. The retirement benefit cannot be combined with the termination payment described above.

<sup>(c)</sup> Mr. de Margerie was Chairman and Chief Executive Officer since May 21, 2010, and Chief Executive Officer since February 14, 2007. Mr. de Margerie's death terminated the commitments that had been granted to him for the future.



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**3. Executive officers' compensation**

In 2014, the aggregate amount paid directly or indirectly by the French and foreign Group companies as compensation to the executive officers<sup>(1)</sup> of TOTAL in office as of December 31, 2014 (members of the Management Committee<sup>(2)</sup> and the Treasurer)

was €21.18 million (twenty-nine individuals), including €8.72 million paid to the seven members of the Executive Committee. Variable compensation accounted for 42.45% of the aggregate amount of €21.18 million paid to executive officers.

**4. Stock option and free share grants policy****4.1. General policy**

In addition to its policy to develop employee shareholding, TOTAL S.A. is also pursuing a policy to associate employees and senior executives with the Group's future results. This policy consists in awarding free performance shares each year. TOTAL S.A. may also award stock options despite the fact that no plan has been put in place since September 14, 2011.

Stock options and performance share grants put in place by TOTAL S.A. concern only TOTAL shares. No options for or grants of performance shares of any of the Group's listed subsidiaries are awarded by TOTAL S.A.

All grants are approved by the Board of Directors, based on the proposal of the Compensation Committee. For each plan, the Compensation Committee recommends a list of beneficiaries, the conditions and the number of options or shares awarded to each beneficiary. The Board of Directors then gives final approval for this list and the grant conditions.

Grants of performance shares under selective plans become definitive at the end of a vesting period which has been extended to three years for shares granted as from July 25, 2013. However, such grants only become definitive subject to a presence condition and performance conditions based on the Group's return on equity (ROE). At the end of this vesting period, and provided that the conditions set are met, the performance shares are definitively awarded to the beneficiaries, who must then hold them for at least two years (holding period). For beneficiaries employed by non-French subsidiaries on the grant date, the vesting period for performance shares may be increased to four years; in such cases, there is no mandatory holding period. As of 2011, all performance shares granted to senior executives are subject to performance conditions.

Stock options have a term of eight years, with an exercise price set at the average of the closing TOTAL share prices on Euronext Paris during the twenty trading days prior to the grant date, without any discount. The exercise of the options is subject to a presence condition and performance conditions, based on the return on equity (ROE) of the Group, which vary depending on the plan and beneficiary category. Since 2011, all options granted are subject to performance conditions. For options that may be awarded pursuant to the authorization given by the Extraordinary Shareholders' Meeting of May 17, 2013 (eleventh resolution), performance conditions will be assessed over a minimum period of three consecutive fiscal years. For earlier option plans, and subject to the applicable presence and performance conditions being met, options may be exercised only at the end of an initial 2-year vesting period and the shares resulting from the exercise may only be disposed of at the end of a second 2-year holding period. Moreover, for the 2007 to 2011 option plans, the shares resulting from the exercise of options by beneficiaries employed by non-French subsidiaries on the grant date may be disposed of or converted to bearer form at the end of the first 2-year vesting period.

Performance share and stock option grants to the executive directors (*dirigeants mandataires sociaux*) in office at the time of the decision are subject to a presence condition within the Group and to specific performance conditions related to the Group's return on equity (ROE) and return on average capital employed (ROACE) set by the Board of Directors, on the proposal of the Compensation Committee.

The award of performance shares or stock options is used to extend, based on individual performance assessments at the time of each plan, the Group-wide policy of developing employee shareholding.

#### **4.2. Follow up of the grants to executive directors**

##### **4.2.1. Stock options**

No stock options have been awarded since September 14, 2011. Until this date, the Company's executive directors in office at the time of the decision were awarded stock options as part of broader share grant plans approved by the Board of Directors for certain Group employees and senior executives. Options granted to the executive directors were governed by the same provisions that apply to other beneficiaries of grant plans.

For options awarded between 2007 and 2011, the Board of Directors has made the exercise of options awarded to the executive directors contingent upon a presence condition and performance conditions based on the Group's ROE and ROACE. The acquisition rate of performance-related options under the 2009, 2010 and 2011 plans was 100%. It had been 60% for the 2008 plan.

All the options awarded to Messrs. Desmarest and Pouyanné outstanding at December 31, 2014 respectively represented 0.005% and 0.005% of the potential share capital<sup>(3)</sup> of the Company on that date.

*(1) Other than the Chief Executive Officer, executive officers are not executive or non-executive directors.*

*(2) As from April 2, 2015, a Group Performance Management Committee will be instituted in place of the Group Management Committee (for more information, refer to A. Directors and Senior Management 2.3. The Management Committee, above).*

*(3) Based on a potential capital of 2,401,902,936 shares.*

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**Stock options exercised in fiscal year 2014 by each executive director (AMF Table No. 5):**

	Plan date and No.	Number of options exercised during fiscal year	Exercise price (€)
<b>Thierry Desmarest</b>			
Chairman of the Board since October 22, 2014			
<b>Patrick Pouyanné<sup>(a)</sup></b>	2006 Plan 07/18/2006	21,760	50.60
Chief Executive Officer since October 22, 2014			
<b>Christophe de Margerie</b>	2009 Plan 09/15/2009	30,000	39.90
Chairman and Chief Executive Officer until October 20, 2014			

<sup>(a)</sup> Mr. Pouyanné exercised his options while he was a salaried employee of the Group (i.e., prior to his appointment as Chief Executive Officer on October 22, 2014).

**4.2.2. Grant of performance shares**

Since 2011, the former Chairman and Chief Executive Officer had been awarded performance shares as part of the broader share grant plans approved by the Board of Directors for certain Group employees. Subject to specific performance conditions, performance shares granted to the Chairman and Chief Executive Officer were governed by the same provisions that apply to other beneficiaries of grant plans.

The performance conditions of performance share grant plans decided in 2012, 2013 and 2014 are described in Note 25 to the Consolidated Financial Statements.

For the 2012 plan, pursuant to performance conditions, the acquisition rate was 100% for shares granted under performance conditions based on the ROE and 88% for shares granted under performance conditions based on the ROACE. It should be noted that these acquisition rates were 100% for 2010 and 2011 plans.

**Performance shares awarded to each executive and non executive director in fiscal year 2014 by the issuer and by any Group company (AMF Table No. 6):**

	Plan date and No.	Number of shares awarded during fiscal year	Valuation of shares (€) <sup>(a)</sup>	Acquisition date	Date of transferability	Performance conditions
<b>Thierry Desmarest</b>						
Chairman of the Board		none				
since October 22, 2014						
<b>Patrick Pouyanné<sup>(b)</sup></b>	2014 Plan 07/29/2014	25,000	1,116,500	07/30/2017	07/30/2019	For 100% of shares, the condition is based on the Group's average ROE in

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Chief Executive Officer  since October 22, 2014 <b>Christophe de Margerie</b> Chairman and Chief Executive Officer until October 20, 2014	2014 Plan 07/29/2014	48,000	2,143,680	07/30/2017	07/30/2019	fiscal years 2014, 2015 and 2016.  For 50% of shares, the condition is based on the Group's average ROE in fiscal years 2014, 2015 and 2016. For 50% of shares, the condition is based on the Group's average ROACE in fiscal years 2014, 2015 and 2016.
<b>Marc Blanc</b>		none				
Director representing employees  since November 4, 2014 <b>Charles Keller</b>	2014 Plan 07/29/2014	400	17,864	07/30/2017	07/30/2019	Shares in excess of the first 100 shares are subject to a condition based on the Group's average ROE in fiscal years 2014, 2015 and 2016.
Director representing employee shareholders since May 17, 2013						
<b>Total</b>		<b>73,400</b>	<b>3,278,044</b>			

*(a) The valuation of performance shares was calculated on the day they were awarded, according to the method used for the Consolidated Financial Statements.*

*(b) Performance shares were granted prior to Mr. Pouyanné's appointment as Chief Executive Officer and related to his previous salaried duties.*

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**Performance shares that have become available for each executive and non executive director (AMF Table No. 7):**

	Plan date and No.	Number of shares that have become available during the fiscal year	Vesting conditions
<b>Thierry Desmarest</b>			
Chairman of the Board since October 22, 2014			
<b>Patrick Pouyanné</b>	2010 Plan 09/14/2010	2,000	n/a
Chief Executive Officer since October 22, 2014			
<b>Christophe de Margerie</b>			
Chairman and Chief Executive Officer until October 20, 2014			
<b>Marc Blanc</b>			n/a
Director representing employees since November 4, 2014			
<b>Charles Keller</b>			n/a
Director representing employee shareholders since May 17, 2013			

**4.3. Grants to employees****4.3.1. Stock option plan**

No stock options have been awarded since September 14, 2011.

**4.3.2. Performance share plan**

The performance conditions of performance share grant plans decided in 2012, 2013 and 2014 are described in Note 25 to the Consolidated Financial Statements.

For the 2012 plan, pursuant to performance conditions, the acquisition rate was 100%. It should be noted that this acquisition rate was 100% for the 2010 and 2011 plans.

**4.4. Follow up of TOTAL stock option plans as of December 31, 2014****4.4.1. Breakdown of TOTAL stock option grants by category of beneficiary**

The following table gives a breakdown of TOTAL stock options awarded by category of beneficiary (executive officers, other senior executives and other employees) for each of the plans in effect during 2014 (for more information concerning the TOTAL stock option plans, refer to Note 25 to the Consolidated Financial Statements):

	Number of	Number of notified	Percentage	Average number
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		beneficiaries	options		of options per beneficiary
<b>2006 Plan: Subscription options</b>	Executive officers <sup>(a)</sup>	28	1,447,000	25.3%	51,679
Decision of the Board of Directors	Other senior executives Other employees	304	2,120,640	37.0%	6,976
		2,253	2,159,600		959
on July 18, 2006	<b>Total</b>	<b>2,585</b>	<b>5,727,240</b>	37.7%	<b>2,216</b>
Exercise price: €50.60; discount: 0.0%				<b>100%</b>	
<b>2007 Plan: Subscription options</b>	Executive officers <sup>(a)</sup>	27	1,329,360	22.8%	49,236
Decision of the Board of Directors	Other senior executives Other employees	298	2,162,270	37.1%	7,256
		2,401	2,335,600		973
on July 17, 2007	<b>Total</b>	<b>2,726</b>	<b>5,827,230</b>	40.1%	<b>2,138</b>
Exercise price: €60.10; discount: 0.0%				<b>100%</b>	
<b>2008 Plan<sup>(b)</sup>: Subscription options</b>	Executive officers <sup>(a)</sup>	26	1,227,500	27.6%	47,212
Awarded on October 9, 2008, by	Other senior executives Other employees	298	1,988,420	44.7%	6,673
decision of the Board of Directors		1,690	1,233,890		730
on September 9, 2008	<b>Total</b>	<b>2,014</b>	<b>4,449,810</b>	27.7%	<b>2,209</b>
Exercise price: €42.90; discount: 0.0%				<b>100%</b>	
<b>2009 Plan<sup>(b)</sup>: Subscription options</b>	Executive officers <sup>(a)</sup>	26	1,201,500	27.4%	46,212
Decision of the Board of Directors	Other senior executives Other employees	284	1,825,540	41.6%	6,428
		1,742	1,360,460		781
on September 15, 2009	<b>Total</b>	<b>2,052</b>	<b>4,387,500</b>	31.0%	<b>2,138</b>
Exercise price: €39.90; discount: 0.0%				<b>100%</b>	
<b>2010 Plan<sup>(b)</sup>: Subscription options</b>	Executive officers <sup>(a)</sup>	25	1,348,100	28.2%	53,924
Decision of the Board of Directors	Other senior executives Other employees	282	2,047,600	42.8%	7,261
		1,790	1,392,720		778
on September 14, 2010	<b>Total</b>	<b>2,097</b>	<b>4,788,420</b>	29.0%	<b>2,283</b>
Exercise price: €38.20; discount: 0.0%				<b>100%</b>	
<b>2011 Plan<sup>(b)</sup>: Subscription options</b>	Executive officers <sup>(a)</sup>	29	846,600	55.7%	29,193
Decision of the Board of Directors	Other senior executives Other employees	177	672,240	44.3%	3,798
on September 14, 2011	<b>Total</b>	<b>206</b>	<b>1,518,840</b>	<b>100%</b>	<b>7,373</b>
Exercise price: €33.00; discount: 0.0%					

<sup>(a)</sup> Members of the Management Committee and the Treasurer such as defined on the date of the Board meeting granting the performance shares.

<sup>(b)</sup> The acquisition rate of performance condition-related shares was 60% for the 2008 plan and 100% for the 2009, 2010 and 2011 plans.

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For the 2007, 2008 and 2009 share subscription option plans, the Board of Directors decided that for each beneficiary of more than 25,000 options, one-third of the options awarded in excess of that number should be subject to a performance condition.

For the 2010 share subscription option plan, a portion of the options granted to beneficiaries of more than 3,000 options are subject to a performance condition. For the 2011 share subscription option plan, all of the options are subject to a performance condition.

Since September 14, 2011, the Board of Directors has decided not to award any stock options.

**4.4.2. Breakdown of outstanding TOTAL stock option plans****Past awards of subscription or purchase options Information on the subscription or purchase options (AMF Table No. 8):**

Type of options	2006 Plan Subscription options	2007 Plan Subscription options	2008 Plan Subscription options	2009 Plan Subscription options	2010 Plan Subscription options	2011 Plan Subscription options	Total
Date of the Shareholders meeting	05/14/2004	05/11/2007	05/11/2007	05/11/2007	05/21/2010	05/21/2010	
Date of Board meeting/grant date <sup>(a)</sup>	07/18/2006	07/17/2007	10/09/2008	09/15/2009	09/14/2010	09/14/2011	
<b>Total number of options awarded by the Board, including:</b>	<b>5,727,240</b>	<b>5,937,230</b>	<b>4,449,810</b>	<b>4,387,620</b>	<b>4,788,420</b>	<b>1,518,840</b>	<b>26,809,160</b>
Executive and non-executive directors <sup>(b)</sup>	421,760	334,160	230,000	230,000	280,000	190,400	1,686,320
<i>T. Desmarest</i>	240,000	110,000					350,000
<i>P. Pouyanné</i>	21,760	24,160	30,000	30,000	40,000	30,400	176,320
<i>C. de Margerie<sup>(c)</sup></i>	160,000	200,000	200,000	200,000	240,000	160,000	1,160,000
<i>M. Blanc</i>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>C. Keller</i>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Date as of which the options may be exercised:	07/19/2008	07/18/2009	10/10/2010	09/16/2011	09/15/2012	09/15/2013	
Expiry date	07/18/2014	07/17/2015	10/09/2016	09/15/2017	09/14/2018	09/14/2019	
Exercise price (€) <sup>(d)</sup>	50.60	60.10	42.90	39.90	38.20	33.00	
<b>Cumulative number of options exercised as of December 31, 2014</b>	<b>3,831,334</b>		<b>1,116,054</b>	<b>1,343,831</b>	<b>996,005</b>	<b>655,365</b>	<b>7,942,589</b>
<b>Cumulative number of options canceled as of December 31, 2014</b>	<b>1,895,906</b>	<b>89,265</b>	<b>117,872</b>	<b>32,520</b>	<b>91,197</b>	<b>4,400</b>	<b>2,231,160</b>
Number of options:							
outstanding as of January 1, 2014	5,620,626	5,847,965	4,219,198	3,989,378	4,537,852	1,141,094	25,356,113
Awarded in 2014							
Canceled in 2014 <sup>(e)</sup>	1,797,912						1,797,912
Exercised in 2014	3,822,714		1,003,314	978,109	836,634	282,019	6,922,790
<b>Outstanding as of December 31, 2014</b>		<b>5,847,965</b>	<b>3,215,884</b>	<b>3,011,269</b>	<b>3,701,218</b>	<b>859,075</b>	<b>16,635,411</b>

<sup>(a)</sup> The grant date is the date of the Board meeting awarding the options, except for the share subscription option plan of October 9, 2008, approved by the Board on September 9, 2008.

<sup>(b)</sup> List of executive and non executive directors who had this status during the fiscal year 2014.

<sup>(c)</sup> Following the death of Mr. de Margerie, and pursuant to legal provisions, the former Chairman and Chief Executive Officer's beneficiaries are entitled to exercise all the granted stock options within six months following the date of death.

<sup>(d)</sup> The exercise price is the average closing price of TOTAL's share on Euronext Paris during the twenty trading days prior to the grant date, without any discount.

<sup>(e)</sup> The 1,797,912 options canceled in 2014 are unexercised options expired on July 18, 2014 due to the expiration of the 2006 subscription option plan.

In the event of the exercise of all share subscription options outstanding as of December 31, 2014, the corresponding shares would represent 0.69%<sup>(1)</sup> of the Company's potential share capital on that date.

*(1) Based on a potential capital of 2,401,902,936 shares.*

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**4.4.3. Stock options awarded to the ten employees (other than executive or non executive directors) receiving the largest number of options/Stock options exercised by the ten employees (other than executive or non executive directors) exercising the largest number of options (AMF Table No. 9)**

	Total number of options awarded/exercised	Average weighted exercise price (€)	2006 Plan 07/18/2006	2008 Plan 10/09/2008 <sup>(a)</sup>	2009 Plan 09/15/2009	2010 Plan 09/14/2010	2011 Plan 09/14/2011
Options awarded in fiscal year 2014 by TOTAL S.A. and its affiliates <sup>(b)</sup> , to the ten TOTAL S.A. employees (other than executive or non executive directors) receiving the largest number of options (aggregate not individual information)							
Options held on TOTAL S.A. and its affiliates <sup>(b)</sup> , and exercised in fiscal year 2014 by the ten TOTAL S.A. employees (other than executive or non executive directors at the date of the exercises) with the largest number of options purchased or subscribed (aggregate not individual information) <sup>(c)</sup>	638,000	44.87	310,760	93,900	84,000	114,600	34,740

<sup>(a)</sup> The grant date is the date of the Board meeting awarding the options, except for the share subscription option plan of October 9, 2008, approved by the Board on September 9, 2008.

<sup>(b)</sup> Pursuant to the conditions of Article L. 225-180 of the French Commercial Code.

<sup>(c)</sup> Mr. Pouyanné is included among the ten employees as he exercised his options before his appointment as Chief Executive Officer on October 22, 2014.

**4.5. Follow up of TOTAL free share grants as of December 31, 2014**

**4.5.1. Breakdown of TOTAL performance share grants by category of beneficiary**

The following table gives a breakdown of TOTAL performance share grants by category of beneficiary (main executive officers, other senior executives and other employees):

		Number		Percentage	Average
		Number of beneficiaries	of notified shares		number of shares per beneficiary
<b>2010 Plan<sup>(a)(d)</sup></b>	Executive officers <sup>(b)</sup>	24	46,780	1.6%	1,949
Decision of the Board on September 14, 2010	Other senior executives	283	343,080	11.4%	1,212
	Other employees	10,074	2,620,151	87.0%	260
	<b>Total</b>	<b>10,381</b>	<b>3,010,011</b>	<b>100%</b>	<b>290</b>
<b>2011 Plan<sup>(a)</sup></b>	Executive officers <sup>(b)</sup>	29	184,900	5.1%	6,376
Decision of the Board on September 14, 2011	Other senior executives	274	624,000	17.1%	2,277
	Other employees	9,658	2,840,870	77.8%	294
	<b>Total</b>	<b>9,961</b>	<b>3,649,770</b>	<b>100%</b>	<b>366</b>

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<b>2012 Plan<sup>(a)</sup></b>	Executive officers <sup>(b)</sup>	33	416,100	9.7%	12,609
Decision of the Board on July 26, 2012	Other senior executives	274	873,000	20.3%	3,186
	Other employees	9,698	3,006,830	70.0%	310
	<b>Total</b>	<b>10,005</b>	<b>4,295,930</b>	<b>100%</b>	<b>429</b>
<b>2013 Plan</b>	Executive officers <sup>(b)</sup>	32	422,600	9.5%	13,206
Decision of the Board on July 25, 2013	Other senior executives	277	934,500	20.9%	3,374
	Other employees <sup>(c)</sup>	9,625	3,107,100	69.6%	323
	<b>Total</b>	<b>9,934</b>	<b>4,464,200</b>	<b>100%</b>	<b>449</b>
<b>2014 Plan</b>	Executive officers <sup>(b)</sup>	32	421,200	9.4%	13,163
Decision of the Board on July 29, 2014	Other senior executives	281	975,300	21.7%	3,471
	Other employees <sup>(c)</sup>	9,624	3,089,800	68.9%	321
	<b>Total</b>	<b>9,937</b>	<b>4,486,300</b>	<b>100%</b>	<b>451</b>

<sup>(a)</sup> For the 2010, 2011 and 2012 plans, the share acquisition rate deriving from the ROE performance condition was 100%.

<sup>(b)</sup> Members of the Management Committee and the Treasurer such as defined on the date of the Board meeting granting the performance shares. The former Chairman and Chief Executive Officer was awarded performance shares under these plans only as of 2011. The Board of Directors of TOTAL S.A. therefore awarded Mr. de Margerie 16,000 performance shares under the 2011 plan, 53,000 performance shares under the 2012 plan, 53,000 performance shares under the 2013 plan and 48,000 performance shares under the 2014 plan. The current Chief Executive Officer, who has held office as of October 22, 2014, was awarded performance shares in respect of his previous salaried duties.

<sup>(c)</sup> Mr. Keller, who is an employee of TOTAL S.A. and director of TOTAL S.A. representing employee shareholders as of May 17, 2013, was awarded 400 performance shares under the 2013 plan and 400 performance shares under the 2014 plan. Mr. Blanc, who is an employee of TOTAL S.A. and director of TOTAL S.A. representing employees as of November 4, 2014, was not awarded any shares under the 2014 plan.

<sup>(d)</sup> Excluding shares granted under the 2010 global free share plan.

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## Item 6 - B. Compensation

These performance shares, which were previously bought back by the Company on the market, are definitively awarded at the end of a 2-year vesting period. In the case of shares awarded as of July 25, 2013, the vesting period has been extended to three years. The definitive grant of all performance shares is subject to a continued employment condition and a performance condition (refer to Note 25 to the Consolidated Financial Statements). Moreover, the disposal of shares that have been definitively awarded cannot occur until the end of a 2-year mandatory holding period

**4.5.2. Breakdown of TOTAL performance share plans**

**Past award of TOTAL performance shares Information on granted performance shares (AMF Table No. 10):**

	2010 Plan	2011 Plan	2012 Plan	2013 Plan	2014 Plan
<b>Date of the Shareholders Meeting</b>	<b>05/16/2008</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	<b>05/16/2014</b>
<b>Date of Board meeting/grant date</b>	<b>09/14/2010</b>	<b>09/14/2011</b>	<b>07/26/2012</b>	<b>07/25/2013</b>	<b>07/29/2014</b>
Closing price on grant date	€39.425	€32.690	€36.120	€40.005	€52.220
Average repurchase price per share paid by the Company	€39.110	€39.580	€38.810	€40.560	€48.320
Total number of performance shares awarded, including to:	3,010,011	3,649,770	4,295,930	4,464,200	4,486,300
Executive and non executive directors <sup>(a)</sup>	240	16,240	53,260	53,400	73,400
<i>T. Desmarest</i>					
<i>P. Pouyanthé</i>	2,000	7,000	22,500	22,500	25,000
<i>C. de Margerie</i>		16,000	53,000 <sup>(c)</sup>	53,000 <sup>(d)</sup>	48,000 <sup>(d)</sup>
<i>M. Blanc</i>	n/a	n/a	n/a	n/a	
<i>C. Keller</i>	n/a	n/a	n/a	400	400
Start of the vesting period	09/14/2010	09/14/2011	07/26/2012	07/25/2013	07/29/2014
Definitive grant date, subject to the conditions set out (end of the vesting period)	09/15/2012	09/15/2013	07/27/2014	07/26/2016	07/30/2017
Disposal possible from (end of the mandatory holding period)	09/15/2014	09/15/2015	07/27/2016	07/26/2018	07/30/2019
<b>Number of performance shares:</b>					
Outstanding as of January 1, 2014			4,278,410	4,460,390	
Notified in 2014					4,486,300
Canceled in 2014			(43,320)	(22,360)	(11,270)
Definitively granted in 2014 <sup>(e)</sup>			(4,235,090)	(3,570)	
<b>Outstanding as of December 31, 2014</b>				<b>4,434,460</b>	<b>4,475,030</b>

<sup>(a)</sup> List of executive and non executive directors who had this status during the fiscal year 2014.

<sup>(b)</sup> Shares granted in respect of his previous salaried duties.

<sup>(c)</sup> On expiry of the vesting period and in compliance with the performance conditions applied to the Chairman and Chief Executive Officer, 49,820 shares were definitively granted to Mr. de Margerie under the 2012 plan.

<sup>(d)</sup> Following the death of Mr. de Margerie, and pursuant to legal provisions, the former Chairman and Chief Executive Officer's beneficiaries may request the grant of all the performance shares that had been awarded to him within a six-month period from the date of death.

<sup>(e)</sup> Definitive grants brought forward following the death of the beneficiaries of shares under the 2013 plan.

In case of a definitive grant of all the performance shares outstanding at December 31, 2014, these shares would represent 0.37%<sup>(1)</sup> of the potential share capital of the Company on that date.

**TOTAL global free share plan**

On May 21, 2010 the Board of Directors decided to implement a global free share plan intended for all the Group's employees, i.e., more than 100,000 employees. On June 30, 2010, rights to twenty-five free shares were granted to every employee.

The definitive grant was subject to a presence condition during the plan's vesting period. Depending on the country in which the Group's companies were located, the vesting period was either two years followed by a 2-year holding period in countries with a 2+2 structure, or four years without a holding period in countries with a 4+0 structure. Moreover, the granted shares were not subject to any performance condition.

At the end of the vesting period, the granted shares became new shares resulting from a TOTAL S.A. capital increase by capitalization of reserves or issue premiums.

*(1) Based on a potential capital of 2,401,902,936 shares.*

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The Chairman and Chief Executive Officer acknowledged on July 2, 2012 the creation and definitive grant of 1,366,950 shares to the beneficiaries designated at the end of the 2-year vesting period. The Chairman and Chief Executive Officer acknowledged on July 1, 2014 the creation and definitive grant of 666,575 shares to the beneficiaries designated at the end of the 4-year vesting period.

**Past awards of TOTAL global free share plan:**

	2010 Plan (2 + 2)	2010 Plan (4 + 0)	Total
<b>Date of the Shareholders Meeting</b>	<b>05/16/2008</b>	<b>05/16/2008</b>	
<b>Date of Board meeting/grant date<sup>(a)</sup></b>	<b>06/30/2010</b>	<b>06/30/2010</b>	
Total number of shares awarded, including to:	1,506,575	1,070,650	2,577,225
Executive and non executive directors <sup>(b)</sup>	75		75
<i>P. Pouyanné</i>	25		25
<i>M. Blanc</i>	25		25
<i>C. Keller</i>	25		25
Definitive grant date (end of the vesting period)	07/01/2012	07/01/2014	
Disposal possible from	07/01/2014	07/01/2014	
<b>Number of restricted shares</b>			
<b>Outstanding as of January 1, 2012</b>	<b>1,479,000</b>	<b>1,015,525</b>	<b>2,494,525</b>
Notified			
Canceled	(111,725)	(40,275)	(152,000)
Definitively granted <sup>(c)</sup>	(1,367,275)	(350)	(1,367,625)
<b>Outstanding as of January 1, 2013</b>		<b>974,900</b>	<b>974,900</b>
Notified			
Canceled	100	(101,150)	(101,050)
Definitively granted	(100)	(275)	(375)
<b>Outstanding as of January 1, 2014</b>		<b>873,475</b>	<b>873,475</b>
Notified			
Canceled		(206,225)	(206,225)
Definitively granted <sup>(d)</sup>		(667,250)	(667,250)
<b>Outstanding as of December 31, 2014</b>			

<sup>(a)</sup> The June 30, 2010, grant was approved by the Board of Directors on May 21, 2010.

<sup>(b)</sup> List of executive and non executive directors who had this status during the fiscal year 2014.

<sup>(c)</sup> Definitive grant on July 2, 2012, of 1,366,950 shares to the designated beneficiaries at the end of the 2-year vesting period.

<sup>(d)</sup> Definitive grant on July 1, 2014, of 666,575 shares to the designated beneficiaries at the end of the 4-year vesting period.

No shares remained available to be granted as of December 31, 2014.

**4.5.3. Performance share grants to the ten employees (other than executive and non executive directors) receiving the largest number of performance shares**

	Number of performance shares notified/definitively awarded	Grant date	Definitive grant date (end of the vesting period)	Availability date (end of holding period)
Performance share grants approved by the Board of Directors at its meeting on July 29, 2014 to the ten TOTAL S.A. employees (other than executive and non executive directors on the date of this decision) receiving the largest number of performance shares <sup>(a)(b)</sup>	200,000	07/29/2014	07/30/2017	07/30/2019
Performance shares definitively awarded in fiscal year 2014, under the performance share grant plan approved by the Board of Directors on July 26, 2012, to the ten TOTAL S.A. employees (who were not executive and non executive directors at the time of this decision)	187,800	07/26/2012	07/27/2014	07/27/2016

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receiving the largest number of performance shares<sup>(b)(c)</sup>

*(a) These shares will be definitively awarded at the end of a 3-year vesting period, i.e., on July 30, 2017, subject to a performance condition being met (refer to 4.3.2. Performance share plan , above). Moreover, the disposal of shares that have been definitively awarded cannot occur until the end of a 2-year holding period, i.e., from July 30, 2019.*

*(b) Mr. Pouyanné, Chief Executive Officer since October 22, 2014, is among the ten TOTAL S.A. employees (other than executive and non executive directors) receiving the largest number of performance shares.*

*(c) This definitive grant was subject to a performance condition (refer to Note 25 to the Consolidated Financial Statements). The acquisition rate of the performance-related shares awarded was 100%. Moreover, the disposal of shares that have been definitively awarded cannot occur until the end of a 2-year holding period, i.e., from July 27, 2016.*

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## Item 6 - C. Board Practices and Corporate Governance

**C. BOARD PRACTICES AND CORPORATE GOVERNANCE****1. Corporate Governance Code**

For several years, TOTAL has been actively examining corporate governance matters. At its meeting on November 4, 2008, the Board of Directors confirmed its decision to refer to the Corporate Governance Code for Listed Companies published by the principal French business confederations, the Association Française des Entreprises Privées (AFEP) and the Mouvement des Entreprises de France (MEDEF) ( AFEP-MEDEF Code ) for corporate governance matters.

The AFEP-MEDEF Code is available on the Internet websites of the MEDEF and AFEP.

The AFEP-MEDEF Code was revised in June 2013 to introduce new changes regarding, in particular, a consultation procedure in which shareholders can express an opinion on the individual compensation of the executive directors (*dirigeants mandataires sociaux*) (say on pay), as well as the establishment of a High Committee for corporate governance, an independent structure in charge of monitoring implementation of the Code.

Pursuant to Article L. 225-37 of the French Commercial Code, the following table sets forth the recommendations made in the AFEP-MEDEF Code that the Company has not followed and the reasons for such decision.

Recommendations not followed	Explanations Practice followed by TOTAL
<p><b>The Board of Directors assessment (paragraph 10.4 of the Code)</b></p> <p>It is recommended that non-executive directors meet periodically without the participation of the executive or in house directors. The rules of procedure of the Board of Directors should provide for one meeting of this kind per year, during which the performance of the Chairman, the Chief Executive Officer and the Deputy Chief Executive Officer(s) would be evaluated, and which would be an opportunity to reflect periodically on the future of the Company s management.</p>	<p>Although the rules of procedure of the Board of Directors do not expressly provide that one meeting of the non-executive directors be held per year without the participation of the executive or in house directors, the Board of Directors practice constitutes a mechanism that has the same effect as the recommendation made in the AFEP-MEDEF Code. In fact, at its meeting held each year in February, the Board of Directors evaluates the performances of the Chief Executive Officer and, where applicable, reflects on the future of the Company s management. When these particular matters are reviewed, the Chief Executive Officer (who is not a director) as well as the members of the Executive Committee present at the meeting (who are not directors), leave the Board meeting.</p>
<p><b>Compensation Committee (point 18.1 of the Code)</b></p> <p>This committee must be chaired by an independent director.</p>	<p>The Chairman of the Compensation Committee is Mr. Pébereau.</p> <p>Mr. Pébereau has exercised his duties as director at TOTAL for more than twelve years and has not requested the renewal of his directorship at the Shareholders Meeting of May 29, 2015.</p>
	<p>After the Shareholders Meeting of May 29, 2015, the Compensation Committee will consist of Ms. Coisne-Roquette and Messrs. Brock and Artus,</p>

all three being independent directors.

**Compensation Committee (point 18.1 of the Code)**

It is recommended that one member of the Committee should be an employee director.

**Supplementary pension plan (point 23.2.6 of the Code)**

Supplementary pension schemes with defined benefits must be subject to the condition that the beneficiary must be a director or employee of the Company when claiming his or her pension rights pursuant to the applicable rules.

The Board of Directors considers it to be desirable that new directors should, after a sufficient period, sit on a committee in order to familiarize themselves with the functioning of the Board and so that the Board is able to form a preliminary appraisal of their potential contribution to the various committees.

It appeared justified not to deprive the concerned beneficiaries of the benefit of the pension commitments made by the Company in special cases of the disability or departure of a beneficiary over 55 years of age at the initiative of the Group.

**2. Rules of procedure of the Board of Directors**

At its meeting on February 13, 2007, the Board of Directors adopted rules of procedure to replace the existing Directors Charter.

The Board's rules of procedure specify the obligations of each director and set forth the mission and working procedures of the Board of Directors. They also define the respective responsibilities and authority of the Chairman and the Chief Executive Officer. They are reviewed on a regular basis to match the changes in rules and practices related to governance. Thus, in 2014, changes were made to include, in particular, new provisions relating to information of the Board of Directors in the event of new directorships being assumed by the directors or modifications being made to existing directorships, together with a reminder of the obligations of confidentiality inherent to the work of the Board.

The unabridged version of these rules of procedure is available herein in its latest version dated October 28, 2014.



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## Item 6 - C. Board Practices and Corporate Governance

The Board of Directors of TOTAL S.A.<sup>(1)</sup> approved the rules of procedure.

**1. ROLE OF THE BOARD OF DIRECTORS**

The Board of Directors is a collegial body that determines the strategic direction of the Company and supervises the implementation of this vision. With the exception of the powers and authority expressly reserved for shareholders and within the limits of the Company's legal purpose, the Board may address any issue related to the Company's operation and make any decision concerning the matters falling within its purview. Within this framework, the Board's duties and responsibilities include, but are not limited to, the following:

- appointing the executive directors<sup>(2)</sup> and supervising the handling of their responsibilities;
- defining the Company's strategic orientation and, more generally, that of the Group;
- approving investments or divestments being considered by the Group that exceed 3% of shareholders' equity;
- reviewing information on significant events related to the Company's operations, in particular for investments and divestments involving amounts exceeding 1% of shareholders' equity;
- conducting any audits and investigations it deems appropriate. In particular, the Board, with the assistance of the Audit Committee, ensures that:
  - authority has been properly defined and that the various corporate bodies of the Company make proper use of their powers and responsibilities;
  - no individual is authorized to commit to pay or to make payments, on behalf of the Company, without proper supervision and control;
  - the internal control function operates properly and the statutory auditors are able to perform their mission satisfactorily; and
  - the committees it has created duly perform their responsibilities;
- ensuring the quality of the information provided to shareholders and financial markets through the financial statements that it approves and as well as the annual reports, or when major transactions are conducted;
- convening and setting the agenda for Shareholders' Meetings or meetings of bond holders; and
- preparing on an annual basis the list of directors it deems to be independent according to generally accepted corporate governance criteria.

**2. OBLIGATIONS OF THE DIRECTORS OF TOTAL S.A.**

Before accepting a directorship, all candidates receive a copy of TOTAL S.A.'s bylaws and these rules of procedure. They must ensure that they have broad knowledge of the general and particular obligations related to their duty, especially the laws and regulations governing directorships in French limited liability companies (*sociétés anonymes*) whose shares are listed in one or several regulated markets. They must also ensure that they are familiar with the guidelines set out in the Code of Corporate Governance to which the Company refers.

Accepting a directorship creates an obligation to comply with applicable regulations relating in particular to the functioning of the Board of Directors, and with the ethical rules of professional conduct for directors as described in the Code of Corporate Governance to which the Company refers. It also creates an obligation to comply with these rules of procedure and to uphold the Group's values as described in its Code of Conduct.

When directors participate in and vote at meetings of the Board of Directors, they are required to represent all of the Company's shareholders and to act in the interest of the Company as a whole.

**2.1. INDEPENDENCE OF JUDGMENT**

Directors undertake to maintain, in all circumstances, the independence of their analysis, judgment, decision-making and actions as well as not to be unduly influenced, directly or indirectly, by other directors, particular groups of shareholders, creditors, suppliers or, more generally, any third party.

**2.2. OTHER DIRECTORSHIPS OR FUNCTIONS**

Directors must keep the Board of Directors informed of any position they hold on the management team, board of directors or supervisory board of any other company, whether French or foreign, listed or unlisted. This includes any positions as a non-voting member of a board. To this end, directors expressly undertake to promptly notify the Board of Directors of any changes to the positions held, for any reason, whether appointment, resignation, termination or non-renewal.

### 2.3. PARTICIPATION IN THE BOARD'S WORK

Directors undertake to devote the amount of time required to duly consider the information they are given and otherwise prepare for meetings of the Board of Directors and of the committees of the Board of Directors on which they sit. They may request from the executive directors any additional information they deem necessary or useful to their duties. If they consider it necessary, they may request training on the Company's specificities, businesses and industry sector, and any other training that may be of use to the effective exercise of their duties as directors.

Unless unable, in which case the Chairman of the Board shall be provided advance notice, directors are to attend all meetings of the Board of Directors, meetings of committees of the Board of Directors on which they serve and Shareholders' Meetings.

The Chairman of the Board ensures that directors receive all relevant information concerning the Company, including that of a negative nature, particularly analyst reports, press releases and the most important media articles.

- (1) *TOTAL S.A. is referred to in the rules of procedure as the Company and collectively with all its direct and indirect subsidiaries as the Group.*
- (2) *The term executive director refers to: the Chairman and Chief Executive Officer, if the Chairman of the Board of Directors is also responsible for the Company's overall management; the Chairman of the Board of Directors and the Chief Executive Officer, if the two roles are carried out separately; and, where applicable, any Deputy Chief Executive Officers or Chief Operating Officers, depending on the organizational structure adopted by the Board of Directors.*

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#### 2.4. CONFIDENTIALITY

Directors and any other person who attends all or part of any meeting of the Board of Directors or its committees are under the strict obligation not to disclose any details of the proceedings.

All documents reviewed at meetings of the Board of Directors, as well as information conveyed prior to or during the meetings, are strictly confidential.

With respect to all non-public information acquired during the exercise of their functions, directors are bound by professional secrecy not to divulge such information to employees of the Group or to outside parties. This obligation goes beyond the mere duty of discretion provided for by law.

Directors must not use confidential information obtained prior to or during meetings for their own personal benefit or for the benefit of anyone else, for whatever reason. They must take all necessary steps to ensure that the information remains confidential. Confidentiality and privacy are lifted when such information is made publicly available by the Company.

#### 2.5. DUTY OF LOYALTY

Directors must not take advantage of their office or duties to gain, for themselves or a third party, any monetary or non-monetary benefit.

They must notify the Board of Directors of any existing or potential conflict of interest with the Company or any Group company, and they must refrain from participating in the vote relating to the corresponding resolution as well as in any discussion preceding such vote.

Directors must inform the Board of Directors of their participation in any transaction that directly involves the Company, or any Group company, before such transaction is finalized.

Directors must not assume personal responsibilities in companies or businesses having activities in competition with those of the Company or any Group company without first having informed the Board of Directors.

Directors undertake not to seek or accept from the Company, or from companies directly or indirectly connected to the Company, any advantages liable to be considered as being of a nature that may compromise their independence.

#### 2.6. DUTY OF EXPRESSION

Directors undertake to clearly express their opposition if they deem a decision being considered by the Board of Directors is contrary to the Company's corporate interest and they must endeavor to convince the Board of Directors of the pertinence of their position.

#### 2.7. TRANSACTIONS IN THE COMPANY'S SECURITIES AND STOCK EXCHANGE RULES

While in office, directors are required to hold the minimum number of registered shares of the Company as set by the bylaws.

Generally speaking, directors must act with the highest degree of prudence and vigilance when completing any personal transaction involving the financial instruments of the Company, its subsidiaries or affiliates that are listed or that issue listed financial instruments.

To that end, directors must comply with the following requirements:

1. Any shares or ADRs of TOTAL S.A. or its listed subsidiaries are to be held in registered form, either with the Company or its agent, or as administered registered shares with a French broker (or North American broker for ADRs), whose contact details are communicated by the director to the Secretary of the Board of Directors.
2. Directors shall refrain from directly or indirectly engaging in (or recommending engagement in) transactions involving the financial instruments (shares, ADRs or any other securities related to such financial instruments) of the Company or its listed subsidiaries, or any listed financial instruments

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for which the director has insider information.

Insider information is specific information that has not yet been made public and that directly or indirectly concerns one or more issuers of financial instruments or one or more financial instruments and which, if it were made public, could have a significant impact on the price of the financial instruments concerned or on the price of financial instruments related to them.

3. Any transaction in the Company's financial instruments (shares, ADRs or related financial instruments) is strictly prohibited during the thirty calendar days preceding the publication by the Company of its periodic results (quarterly, half-year or annual) as well as on the day of any such announcement.
4. Moreover, directors shall comply, where applicable, with the provisions of Article L. 225-197-1 of the French Commercial Code, which stipulates that free shares may not be sold:
  - during the ten trading days preceding and the three trading days following the date on which the consolidated financial statements or, failing that, the annual financial statements, are made public; and
  - during the period from the date on which the Company's corporate bodies become aware of information that, if it were made public, could have a significant impact on the Company's share price, until ten trading days after such information is made public.
5. Directors are prohibited from carrying out transactions on any financial instruments related to the Company's share (Paris option market (MONEP), warrants exchangeable bonds, etc.) and from buying on margin or short selling such financial instruments.
6. Directors are also prohibited from hedging the shares of the Company and any financial instruments related to them, and in particular:
  - Company shares that they hold;

and, where applicable,

- Company share subscription or purchase options;
- rights to Company shares that may be awarded free of charge; and
- Company shares obtained from the exercise of options or granted free of charge.

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7. Directors must make all necessary arrangements to declare, pursuant to the form and timeframe provided by applicable law, to the French securities regulator (Autorité des marchés financiers), as well as to the Secretary of the Board of Directors, any transaction involving the Company's securities conducted by themselves or by any other person to whom they are closely related.

**3. FUNCTIONING OF THE BOARD OF DIRECTORS**

**3.1. BOARD MEETINGS**

The Board of Directors meets at least four times a year and whenever circumstances require.

Prior to each Board meeting, the directors receive the agenda and, whenever possible, all other materials necessary to consider for the session.

Directors may be represented by another director at a meeting of the Board, provided that no director holds more than one proxy at any single meeting.

Whenever authorized by law, directors are considered present for quorum and majority purposes who attend Board meetings through video conferencing or other audiovisual means that are compliant with the technical requirements set by applicable regulations.

**3.2. DIRECTORS' FEES**

The Board of Directors allocates annual directors' fees within the total amount authorized by the Annual Shareholders' Meeting. Compensation includes a fixed portion and a variable portion that takes into account each director's actual participation in the work of the Board of Directors and its committees.

The Chief Executive Officer or, if the functions are combined, the Chairman and Chief Executive Officer does not receive any director's fees for his participation in the work of the Board and its committees.

**3.3. SECRETARY OF THE BOARD OF DIRECTORS**

The Board of Directors, based on the recommendation of its Chairman, appoints a Secretary who assists the Chairman in organizing the Board's activities, and particularly in preparing the annual work program and the schedule of Board meetings.

The Secretary drafts the minutes of Board meetings, which are then submitted to the Board for approval. The Secretary is authorized to dispatch Board meeting minutes and to certify copies and excerpts of the minutes.

The Secretary is responsible for all procedures pertaining to the functioning of the Board of Directors. These procedures are reviewed periodically by the Board.

All Board members may ask the Secretary for information or assistance.

**3.4. EVALUATION OF THE FUNCTIONING OF THE BOARD**

The Board evaluates its functioning at regular intervals not exceeding three years. The evaluation is carried out with the assistance of an outside consultant and, where appropriate, under the supervision of an independent director. The Board of Directors also conducts an annual review of its practices.

**4. ROLE AND AUTHORITY OF THE CHAIRMAN**

The Chairman represents the Board of Directors and, except under exceptional circumstances, has sole authority to act and speak on behalf of the Board of Directors.

The Chairman organizes and oversees the work of the Board of Directors and ensures that the Company's corporate bodies operate effectively and in compliance with good governance principles. The Chairman coordinates the work of the Board of Directors and its committees. The Chairman establishes the agenda for each

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Board meeting, including items suggested by the Chief Executive Officer.

The Chairman ensures that directors receive, in a timely manner and in a clear and appropriate format, the information they need to effectively carry out their duties.

In liaison with the Group's general management, the Chairman is responsible for maintaining relations between the Board of Directors and the Company's shareholders. The Chairman monitors the quality of information disclosed by the Company.

In close cooperation with the Group's general management, the Chairman may represent the Company in high-level discussions with government authorities and major partners, both at a national and international level.

The Chairman is regularly informed by the Chief Executive Officer of significant events and situations relating to the Group, particularly with regard to strategy, organization, monthly financial reporting, major investment and divestment projects and key financial transactions. The Chairman may ask the Chief Executive Officer or other senior executives of the Company, provided that the Chief Executive Officer is informed, to supply any information that may help the Board or its committees to carry out their duties.

The Chairman may meet with the statutory auditors in order to prepare the work of the Board of Directors and the Audit Committee.

Every year, the Chairman presents a report to the Annual Shareholders' Meeting describing the preparation and organization of the Board of Directors' work, any limits set by the Board of Directors concerning the powers of the Chief Executive Officer, and the internal control procedures implemented by the Company. To this end, the Chairman obtains the necessary information from the Chief Executive Officer.

### **5. AUTHORITY OF THE CHIEF EXECUTIVE OFFICER**

The Chief Executive Officer is responsible for the Company's overall management and chairs the Group's Executive Committee and Management Committee. The Chief Executive Officer is vested with the broadest powers to act on behalf of the Company in all circumstances, subject to the powers that are, by law, restricted to the Board of Directors and to the Annual Shareholders' Meeting, as well as to the Company's corporate governance rules and in particular these rules of procedure of the Board of Directors.

The Chief Executive Officer is responsible for presenting the Group's results and prospects to shareholders and the financial community on a regular basis.

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### Item 6 - C. Board Practices and Corporate Governance

At each meeting of the Board of Directors, the Chief Executive Officer presents an overview of significant Group events.

#### **6. BOARD COMMITTEES**

The Board of Directors approved the creation of:

- an Audit Committee;
- a Governance and Ethics Committee;
- a Compensation Committee; and
- a Strategic Committee.

The roles and composition of each committee are set forth in their respective rules of procedure, which have been approved by the Board of Directors.

The committees perform their duties under the authority and for the benefit of the Board of Directors.

Each committee reports on its activities to the Board of Directors.

### **3. Committees of the Board of Directors**

The unabridged version of the rules of procedure of the Committees of the Board of Directors is available herein, followed by the composition of each Committee

#### **3.1. Audit Committee**

The rules of procedure of the Audit Committee were modified in 2014 to permit the appointment of a director representing the employee shareholders or employees. The unabridged version of the rules of procedure of the Audit Committee, as approved by the Board of Directors on July 29, 2014, is available herein.

#### **Rules of procedure (unabridged version)**

The Board of Directors of TOTAL S.A. (hereafter referred to as the **Company** and, collectively with all its direct and indirect subsidiaries, as the **Group** ) has approved the following rules of procedure of the **Company** 's Audit Committee (hereafter, the **Committee** ).

The members of the Committee are directors of the **Company** and therefore uphold the rules of procedure of the Board of Directors of TOTAL S.A.

#### **I. DUTIES**

To allow the Board of Directors of TOTAL S.A. to ensure that internal control is effective and that published information available to shareholders and financial markets is reliable, the duties of the Committee include:

- recommending the appointment of statutory auditors and their compensation, ensuring their independence and monitoring their work;
- establishing the rules for the use of statutory auditors for non-audit services and verifying their implementation;
- supervising the audit by the statutory auditors of the **Company** 's statutory financial statements and Consolidated Financial Statements;

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examining the assumptions used to prepare the financial statements, assessing the validity of the methods used to handle significant transactions and examining the Company's statutory financial statements and consolidated annual, semi-annual, and quarterly financial statements prior to their examination by the Board of Directors, after regularly monitoring the financial situation, cash position and commitments included in the annual financial statements of the Company;

supervising the implementation of internal control and risk management procedures and their effective application, with the assistance of the internal audit department;

supervising procedures for preparing financial information;

monitoring the implementation and activities of the disclosure committee, including reviewing the conclusions of this committee;

reviewing the annual work program of internal and external auditors;

receiving information periodically on completed audits and examining annual internal audit reports and other reports (statutory auditors, annual report, etc.);

reviewing the choice of appropriate accounting principles and methods used to prepare the Company's consolidated and statutory financial statements and ensuring the continuity of the methods;

reviewing the Group's policy for the use of derivative instruments;

reviewing, if requested by the Board of Directors, major transactions contemplated by the Group;

reviewing significant litigation annually;

implementing and monitoring compliance with the financial code of ethics;

proposing to the Board of Directors, for implementation, a procedure for complaints or concerns of employees, shareholders and others, related to accounting, internal control or auditing matters, and monitoring the implementation of this procedure;

where applicable, reviewing significant transactions of the Group during which a conflict of interest may have occurred; and

reviewing the procedure for booking the Group's proved reserves.

### **II. COMPOSITION**

The Committee is made up of at least three directors designated by the Board of Directors from among the independent directors.

The director representing the employee shareholders or a director representing the employees may also be appointed as members of the Audit Committee by the Board of Directors.



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Members of the Committee may not be executive directors (dirigeants mandataires sociaux) of the Company or one of its subsidiaries, nor own more than 10% of the Company's shares, whether directly or indirectly, individually or acting together with another party.

In selecting the members of the Committee, the Board of Directors pays particular attention to their independence and their financial and accounting qualifications.

The Board of Directors appoints one of the members of the Committee to serve as the financial expert on the Committee.

Members of the Committee may not receive from the Company and its subsidiaries, either directly or indirectly, any compensation other than: (i) directors' fees paid for their services as directors or as members of the Committee, or, if applicable, as members of another committee of the Company's Board; and (ii) compensation and pension benefits related to prior employment by the Company, or another Group company, which are not dependent upon future work or activities.

The term of office of the members of the Committee coincides with the term of their appointment as director. The term of office as a member of the Committee may be renewed at the same time as the appointment as director.

However, the Board of Directors can change the composition of the Committee at any time.

### **III. ORGANIZATION OF ACTIVITIES**

The Committee appoints its Chairman, who must be selected from the independent directors on the said Committee. The appointment or renewal of the appointment of the Committee Chairman is submitted to the Board of Directors following consultation with the Governance and Ethics Committee. The Committee appoints its Secretary, who may be the Chief Financial Officer of the Company.

The Committee deliberates when at least one-half of its members are present. A member of the Committee cannot be represented.

The Committee meets at least seven times each year: each quarter to review the statutory financial statements of TOTAL S.A., the annual and quarterly Consolidated Financial Statements, and at least three other times a year to review matters not directly related to the review of the quarterly financial statements.

The Committee may also meet at the request of its Chairman, at least one half of its members, the Chairman and Chief Executive Officer, and, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, the Chairman of the Board of Directors or the Chief Executive Officer.

The Committee Chairman prepares the schedule of its meetings.

At each committee meeting where the quarterly financial statements are reviewed, the Group's Chief Financial Officer presents the consolidated and statutory financial statements of TOTAL S.A. as well as the Group's financial position and, in particular, its liquidity, cash flow and debt situation. A memo describing the Company's risk exposure and off-balance sheet commitments is communicated to the Audit Committee. This review of the financial statements includes a presentation by the statutory auditors underscoring the key points observed.

As part of monitoring the efficiency of the internal control and risk management systems, the Committee is informed of the work program of the Group Internal Control and Audit Department and its organization, on which it may issue an opinion. The Committee also receives a summary of the internal audit reports, which is presented at each committee meeting where the quarterly financial statements are reviewed. The risk management processes implemented within the Group and updates to them are presented regularly to the Audit Committee.

The Committee may meet with the Chairman and Chief Executive Officer and, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, the Chairman of the Board of Directors, the Chief Executive Officer and, if applicable, any Deputy Chief Executive Officer of the Company, and perform inspections and consult with managers of operating or non-operating departments, as may be useful in performing its duties. The Chairman of the Committee gives prior notice of such meeting to the Chairman and Chief Executive Officer and, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, both the Chairman of the Board of Directors and the Chief Executive Officer. In particular, the Committee is authorized to consult with those involved in preparing or auditing the financial statements (Chief Financial Officer and principal Finance Department managers, Audit Department, Legal Department) by asking the Company's Chief Financial Officer to call them to a meeting.

The Committee consults with the statutory auditors and, at least once a year, without any Company representative being present. If it is informed of a substantial irregularity, it recommends that the Board of Directors take all appropriate action.

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If it deems it necessary to accomplish its duties, the Committee may request from the Board of Directors the resources to contract external consultants.

The proposals made by the Committee to the Board of Directors are adopted by a majority of the members present at the Committee meeting. The Chairman of the Committee casts the deciding vote if an even number of members is present at the meeting.

The Committee can adopt proposals intended for the Board of Directors without meeting if all the members of the Committee so agree and sign each proposal.

A written summary of Committee meetings is drawn up.

### **IV. REPORT**

The Committee submits written reports to the Board of Directors regarding its work.

It periodically evaluates its performance based on these rules of procedure and, if applicable, offers suggestions for improving its performance.

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### **Item 6 - C. Board Practices and Corporate Governance**

#### **Members of the Audit Committee in 2014**

As of December 31, 2014, the Committee had four members.

The Committee consists of Mses. Barbizet and Coisne-Roquette and Messrs. Keller and Lamarche.

With the exception of the director representing the employee shareholders (Mr. Keller), all members of the Committee are independent directors (see C. Board Practices and Corporate Governance 5. Director independence, below). Their careers attest to their possession of acknowledged expertise in the financial and accounting fields (see A. Directors and Senior Management 1.1. Composition of the Board of Directors as of December 31, 2014, above).

The Committee is chaired by Ms. Barbizet.

At its meeting on July 28, 2011, the Board of Directors decided to appoint Ms. Barbizet to serve as the Audit Committee financial expert based on a recommendation by the Audit Committee.

#### **3.2. Compensation Committee**

The unabridged version of the rules of procedure of the Compensation Committee, as approved by the Board of Directors on February 9, 2012, is available herein

#### **Rules of procedure (unabridged version)**

The Board of Directors of TOTAL S.A. (hereafter referred to as the Company and, collectively with all its direct and indirect subsidiaries, as the Group) has approved the following rules of procedure of the Company's Compensation Committee (hereafter, the Committee).

The members of the Committee are directors of the Company and therefore uphold the rules of procedure of the Board of Directors of TOTAL S.A.

The Committee is focused on:

examining the executive compensation policies implemented by the Group and the compensation of members of the Executive Committee;  
evaluating the performance and recommending the compensation of each executive director; and  
preparing reports which the Company must present in these areas.

#### **I. DUTIES**

The Committee's duties include:

1. examining the main objectives proposed by the Company's general management regarding compensation of the Group's executive officers, including stock option and restricted share grant plans and equity-based plans, and advising on this subject;
2. presenting recommendations and proposals to the Board of Directors concerning:

compensation, pension and life insurance plans, in-kind benefits and other compensation (including severance benefits) for the executive directors of the Company; in particular, the Committee proposes compensation structures that take into account the Company's strategy, objectives and earnings and market practices;  
stock option and restricted share grants, particularly grants of restricted shares to the executive directors;

3. examining the compensation of the members of the Executive Committee, including stock option and restricted share grant plans and equity-based plans, pension and insurance plans and in-kind benefits;

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4. preparing and presenting reports in accordance with these rules of procedure;
5. examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
6. preparing recommendations requested at any time by the Chairman of the Board of Directors or the general management of the Company regarding compensation.

### **II. COMPOSITION**

The Committee is made up of at least three directors designated by the Board of Directors. A majority of the members must be independent directors.

Members of the Compensation Committee may not receive from the Company and its subsidiaries, either directly or indirectly, any compensation other than:  
(i) directors' fees paid for their services as directors or as members of the Committee, or, if applicable, as members of another committee of the Company's Board;  
(ii) compensation and pension benefits related to prior employment by the Company, or another Group company, which are not dependent upon future work or activities.

The term of office of the members of the Committee coincides with the term of their appointment as director. The term of office as a member of the Committee may be renewed at the same time as the appointment as director.

However, the Board of Directors can change the composition of the Committee at any time.

### **III. ORGANIZATION OF ACTIVITIES**

The Committee appoints its Chairman and its secretary. The secretary is a Company senior executive.

The Committee deliberates when at least one-half of its members are present. A member of the Committee cannot be represented.

The Committee meets at least twice a year. It meets on an as-needed basis through notice by its Chairman or by one-half of its members.

The Committee invites the Chairman of the Board or the Chief Executive Officer of the Company, as applicable, to present recommendations. Neither the Chairman nor the Chief Executive Officer may be present during the Committee's deliberations regarding his own situation. If the Chairman of the Board is not the Chief Executive Officer of the Company, the Chief Executive Officer may not be present during the Committee's deliberations regarding the situation of the Chairman of the Board.

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While maintaining the appropriate level of confidentiality for its discussions, the Committee may request from the Chief Executive Officer to be assisted by any senior executive of the Company whose skills and qualifications could facilitate the handling of an agenda item.

If it deems it necessary to accomplish its duties, the Committee may request from the Board of Directors the resources to contract external consultants.

The proposals made by the Committee to the Board of Directors are adopted by a majority of the members present at the Committee meeting. The Chairman of the Committee casts the deciding vote if an even number of Committee members is present at the meeting.

The Committee can adopt proposals intended for the Board of Directors without meeting if all the members of the Committee so agree and sign each proposal.

A written summary of Committee meetings is drawn up.

**IV. REPORT**

The Committee reports on its activities to the Board of Directors.

At the request of the Chairman of the Board, the Committee examines all draft reports of the Company regarding compensation of the executive officers or any other issues relevant to its area of expertise.

**Members of the Compensation Committee in 2014**

As of December 31, 2014, the Compensation Committee was made up of four members as a result of Mr. Desmarest's withdrawal from this Committee at the time of his appointment as Chairman of the Board of Directors.

The Committee's members are Ms. Coisne-Roquette and Messrs. Artus, Brock and Pébureau. Mr. Pébureau chairs the Committee.

75% of the Committee members are independent directors, given that the Board of Directors considers Ms. Coisne-Roquette and Messrs. Artus and Brock to be independent (see [C. Board Practices and Corporate Governance](#) 5. Director independence, below).

As Mr. Pébureau did not request the renewal of his directorship at the Shareholders' Meeting of May 29, 2015, the Compensation Committee, following the Shareholders' Meeting of May 29, 2015, will consist of Ms. Coisne-Roquette and Messrs. Brock et Artus, all three being independent directors.

**3.3. The Governance and Ethics Committee**

The unabridged version of the rules of procedure of the Governance and Ethics Committee, as approved by the Board of Directors on March 27, 2013, is available [herein](#).

**Rules of procedure (unabridged version)**

The Board of Directors of TOTAL S.A. (hereafter referred to as the [Company](#) and, collectively with all its direct and indirect subsidiaries, as the [Group](#) ) has approved the following rules of procedure of the [Company's](#) Governance and Ethics Committee (hereafter, the [Committee](#) ).

The members of the Committee are directors of the [Company](#) and therefore uphold the rules of procedure of the Board of Directors of TOTAL S.A.

The Committee is focused on:

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recommending to the Board of Directors the persons that are qualified to be appointed as directors, so as to guarantee the scope of coverage of the Directors' competencies and the diversity of their profiles;  
recommending to the Board of Directors the persons that are qualified to be appointed as executive directors;  
preparing the Company's corporate governance rules and supervising their implementation; and  
ensuring compliance with ethics rules and examining any questions related to ethics and situations of conflicting interests.

### **I. DUTIES**

The Committee's duties include:

1. presenting recommendations to the Board for its membership and the membership of its committees, and the qualification in terms of independence of each candidate for Directors' positions on the Board of Directors;
2. proposing annually to the Board of Directors the list of directors who may be considered as independent directors;
3. examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
4. assisting the Board of Directors in the selection and evaluation of the executive directors and examining the preparation of their possible successors, including cases of unforeseeable absence;
5. recommending to the Board of Directors the persons that are qualified to be appointed as directors;
6. recommending to the Board of Directors the persons that are qualified to be appointed as members of a Committee of the Board of Directors;
7. proposing methods for the Board of Directors to evaluate its performance, and in particular preparing means of regular self-assessment of the workings of the Board of Directors, and the possible assessment thereof by an external consultant;
8. proposing to the Board of Directors the terms and conditions for allocating directors' fees and the conditions under which expenses incurred by the directors are reimbursed;
9. developing and recommending to the Board of Directors the corporate governance principles applicable to the Company;
10. preparing recommendations requested at any time by the Board of Directors or the general management of the Company regarding appointments or governance;

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### Item 6 - C. Board Practices and Corporate Governance

11. examining the conformity of the Company's governance practices with the recommendations of the Code of Corporate Governance adopted by the Company;
12. supervising and monitoring implementation of the Company's ethics and compliance program and, in this respect, ensuring that the necessary procedures for updating the Group's Code of Conduct are put in place and that this code is disseminated and applied;
13. examining any questions related to ethics and situations of conflicting interests;
14. examining changes in the duties of the Board of Directors.

#### **II. COMPOSITION**

The Committee is made up of at least three directors designated by the Board of Directors. At least one half of the members must be independent directors.

Members of the Governance and Ethics Committee, other than the Company's executive directors, may not receive from the Company and its subsidiaries any compensation other than: (i) directors' fees paid for their services as directors or as members of the Committee, or, if applicable, as members of another committee of the Company's Board; (ii) compensation and pension benefits related to prior employment by the Company, or another Group company, which are not dependent upon future work or activities.

The term of office of the members of the Committee coincides with the term of their appointment as director. The term of office as a member of the Committee may be renewed at the same time as the appointment as director.

However, the Board of Directors can change the composition of the Committee at any time.

#### **III. ORGANIZATION OF ACTIVITIES**

The Committee appoints its Chairman and its secretary. The secretary is a Company senior executive.

The Committee deliberates when at least one-half of its members are present. A member of the Committee cannot be represented.

The Committee meets at least twice a year. It meets on an as-needed basis through notice by its Chairman or by one-half of its members.

The Committee invites the Chairman of the Board or the Chief Executive Officer of the Company, as applicable, to present recommendations. The executive directors, whether they are members of the Committee or invited to its meetings, may not be present at deliberations concerning their own situation.

While maintaining the appropriate level of confidentiality for its discussions, the Committee may request from the Chief Executive Officer to be assisted by any senior executive of the Company whose skills and qualifications could facilitate the handling of an agenda item.

The Chairman of the Group Ethics Committee, who reports to the Chief Executive Officer, may appear before the Governance and Ethics Committee at any time. He reports to this Committee each year on his activities and on the results of the ethics program implemented by the Company.

If it deems it necessary to accomplish its duties, the Committee may request from the Board of Directors the resources to contract external consultants.

The proposals made by the Committee to the Board of Directors are adopted by a majority of the members present at the Committee meeting. The Chairman of the Committee casts the deciding vote if an even number of Committee members is present at the meeting.

The Committee can make proposals to the Board of Directors without meeting if all the members of the Committee so agree and sign each proposal.

A written summary of Committee meetings is drawn up.

#### **IV. REPORT**

The Committee reports on its activities to the Board of Directors.

#### **Members of the Governance and Ethics Committee in 2014**

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As of December 31, 2014, the Governance and Ethics Committee had six members.

The Committee's members are Mses. Kux and Idrac and Messrs. Artus, Brock, Collomb and Desmarest. The Committee is chaired by Mr. Desmarest.

Two-thirds of the Committee members are independent directors, given that the Board of Directors considers Mses. Kux and Idrac and Messrs. Artus and Brock to be independent (see C. Board Practices and Corporate Governance 5. Director independence, below).

As Mr. Collomb did not request the renewal of his directorship at the Shareholders Meeting of May 29, 2015, the Governance and Ethics Committee will have five members following the Shareholders Meeting of May 29, 2015.

### **3.4. Strategic Committee**

The unabridged version of the rules of procedure of the Strategic Committee, as approved by the Board of Directors on April 25, 2013, is available herein.



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**Rules of procedure (unabridged version)**

The members of the Committee are directors of the Company and therefore uphold the rules of procedure of the Board of Directors of TOTAL S.A.

**I. DUTIES**

To allow the Board of Directors of TOTAL S.A. to ensure the Group's development, the Committee's duties include:

examining the Group's overall strategy proposed by the Company's Chief Executive Officer;  
examining operations that are of particular strategic importance; and  
reviewing competition and the resulting medium and long-term outlook for the Group.

**II. COMPOSITION**

The Committee is made up of at least five directors designated by the Board of Directors.

Members of the Committee may not receive from the Company and its subsidiaries, either directly or indirectly, any compensation other than: (i) directors' fees paid for their services as directors or as members of the Committee, or, if applicable, as members of another committee of the Company's Board; (ii) compensation and pension benefits related to prior employment by the Company, or another Group company, which are not dependent upon future work or activities.

The term of office of the members of the Committee coincides with the term of their appointment as director. The term of office as a member of the Committee may be renewed at the same time as the appointment as director.

However, the Board of Directors can change the composition of the Committee at any time.

**III. ORGANIZATION OF ACTIVITIES**

The Chairman of the Board of Directors of the Company chairs the Committee. The Chairman appoints the Committee secretary, who may be the Secretary of the Board of Directors.

The Committee deliberates when at least one-half of its members are present. A member of the Committee cannot be represented.

The Committee meets at least once a year and at the request of its Chairman, at least one-half of its members, or the Chief Executive Officer of the Company. The Committee Chairman prepares the schedule of its meetings.

The Chairman of the Committee may invite other directors to participate in the Committee meetings based on the meeting agenda.

The Committee may meet with the Chief Executive Officer, and, if applicable, any Deputy Chief Executive Officer of the Company and consult with managers of operating or non-operating departments, as may be useful in performing its duties. The Chairman of the Committee, if he is not the Chief Executive Officer of the Company, gives prior notice of such meeting to the Chief Executive Officer. In particular, the Committee is authorized to consult with the Vice President Strategy & Business Intelligence of the Company or the person delegated by the latter, by asking the Company's Chief Executive Officer to call them to a meeting.

If it deems it necessary to accomplish its duties, the Committee may request from the Board of Directors the resources to contract external consultants.

A written summary of Committee meetings is drawn up.

**IV. REPORT**

The Committee submits written reports to the Board of Directors regarding its work.

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It periodically evaluates its performance based on these rules of procedure and, if applicable, offers suggestions for improving its performance.

### Members of the Strategic Committee in 2014

As of December 31, 2014, the Strategic Committee had six members.

The Committee's members are Meses. Barbizet, Kux and Lauvergeon and Messrs. Desmarest, Brock and Lamarche.

The Committee is chaired by Mr. Desmarest.

Two-thirds of the Committee members are independent directors, given that the Board of Directors considers Meses. Barbizet and Kux and Messrs. Brock and Lamarche to be independent (see C. Board Practices and Corporate Governance 5. Director independence, below).

Ms. Lauvergeon did not request the renewal of her directorship at the Shareholders Meeting of May 29, 2015, and will then leave the Strategic Committee following the Shareholders Meeting.

At its meeting of February 11, 2015, and further to a proposal by the Governance and Ethics Committee, the Board of Directors decided that Mr. Pouyanné, Chief Executive Officer, shall become a member of the Strategic Committee, subject to the approval of his appointment as a director by the Shareholders Meeting of May 29, 2015.

## 4. Board of Directors practices

### 4.1. Management form

On May 21, 2010, the Board of Directors decided to reunify the positions of Chairman and Chief Executive Officer and appoint the Chief Executive Officer as Chairman of the Board. This decision had been made further to the work done by the Governance and Ethics Committee (then the Nominating & Governance Committee)

and in the best interests of the Company, taking into account the advantage of the unified management and the majority of independent directors appointed at the Committees, which ensured balanced authority. The Board of Directors had deemed that the unified management form was the most appropriate to the Group's organization, modus operandi and business, and the

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### **Item 6 - C. Board Practices and Corporate Governance**

specificities of the oil and gas sector. It respected the respective prerogatives of the various Company corporate bodies (Shareholders Meeting, Board of Directors and General Management). The reunification was confirmed during the Board of Directors meeting held on May 11, 2012, at which Mr. de Margerie was reappointed as Chairman and Chief Executive Officer.

Following the death of the Chairman and Chief Executive Officer, and acting on a proposal from the Governance and Ethics Committee, the Board of Directors decided to separate the positions of Chairman and Chief Executive Officer in order to ensure continuity as best as possible in the General Management's transition process.

During its meeting on October 22, 2014, the Board of Directors therefore appointed Mr. Pouyanné, as Chief Executive Officer for a term expiring at the end of the Shareholders Meeting called in 2017 to approve the financial statements for the fiscal year 2016. The Board has furthermore appointed Mr. Desmarest Chairman of the Board of Directors for a period due to expire on December 18, 2015, in light of the age limits set out in the bylaws. As of such date, the functions of Chairman and Chief Executive Office of TOTAL will be combined.

#### **4.2. Performance and evaluation**

At its meeting on February 11, 2015, the Board of Directors discussed its practices on the basis of a formal evaluation carried out

by means of a detailed questionnaire to which all the Directors responded. The responses given by the Directors were then presented to the Governance and Ethics Committee to be reviewed and summarized. This summary was then discussed by the Board of Directors. This process made it possible to confirm the quality of each director's contribution to the work of the Board and its Committees.

The formal evaluation showed a generally positive opinion of the practices of the Board of Directors and the Committees, which was highlighted in particular during the decision-making process that had ensured the continuity of the Group's governance following the death of the Chairman and Chief Executive Officer.

Furthermore, it was noted that the improvements requested by the directors over the last few years had been made on the whole. During the Board of Directors meetings, some of which were held at certain of the Group's sites, special attention was paid at the start of each meeting to the review of the main points to be examined by the Board (financial statements, large-scale investment and divestment projects, etc.). It was also noted that more time was allotted to the main strategic topics and important issues during the Board and Committee meetings.

To further improve its performance, the Board took into account the main suggestions made by the directors in the 2015 self-assessment, which notably concerned the strengthening of improvements made to the time allotted to the most important issues and substantive debates.

### **5. Director independence**

At its meeting on February 11, 2015, the Board of Directors, on the recommendation of the Governance and Ethics Committee, reviewed the independence of the Company's directors as of December 31, 2014. At the Committee's proposal, the Board considered that, pursuant to the AFEP-MEDEF Code, a director is independent when he or she has no relationship of any kind with the Company, its Group or its Management, that may compromise the exercise of his or her freedom of judgment.

For each director, this assessment relies on the independence criteria set forth in the AFEP-MEDEF Code, revised in June 2013, as outlined below, as well as on the analysis of the High Committee for Corporate Governance (HCGE) set out in the AFEP-MEDEF Code Application Guide, revised in December 2014:

- not be an employee or executive director of the Company, or an employee or director of its parent company or of a company consolidated by its parent company, and not having been in such a position for the previous five years;
- not be an executive director of a company in which the Company holds, directly or indirectly, a directorship or in which an employee designated as such or an executive director of the Company (currently in office or having held such office for less than five years) is a director;
- not to be a significant customer, supplier, investment banker or commercial banker of the Company or Group, and for which the Company or the Group represents a material part of their business (the assessment of the materiality or non-materiality of the relationship must be discussed by the Board and the criteria on which this assessment was based must be explained in the Registration Document);

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not to be related by close family ties to a corporate executive director;  
not to have been a statutory auditor of the Company within the previous five years; and  
not to have been a director of the Company for more than twelve years (upon expiry of the term of office during which the 12-year limit was reached).  
The AFEP-MEDEF Code expressly stipulates that the Board can decide that the implementation of certain defined criteria is not relevant or induces an interpretation that is particular to the Company.

At its meeting on February 11, 2015, pursuant to the report of the Governance and Ethics Committee, the Board of Directors observed that Mr. Desmarest, Director since May 30, 1995 and Chairman of the Board of Directors since October 22, 2014, was an executive director within the meaning of the Code and therefore could not be considered as independent.

With regard to the criterion of twelve years of service, the Board, at its meeting on February 11, 2015, pursuant to the report of the Governance and Ethics Committee, took note of the HCGE's analysis. It observed that as of December 31, 2014, the twelve years of service of four directors (Ms. Lauvergeon, Messrs. Collomb, Desmarais, jr and Pébereau) no longer allowed them to be considered as independent within the meaning of the AFEP-MEDEF Code in view of the positions expressed by the HCGE, notwithstanding the specific characteristics of the oil and gas sector, which relies on long-term investment cycles on one hand, and, on the other hand, the objectivity that these directors have demonstrated in the Board's activity.

Concerning significant relationships, as a customer, supplier, investment banker or finance banker, between a director and the Company, the Board deemed that the level of activity between Group companies and a bank at which Mr. Pébereau is a former corporate executive director, which is less than 0.1% of its net banking income<sup>(1)</sup> and less than 5% of the Group's overall assets, represents neither a significant portion of the overall activity of such bank nor a material portion of the Group's external financing.

*(1) 2014 net banking income estimated based on BNP Paribas accounts as of September 30, 2014.*

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Item 6 - C. Board Practices and Corporate Governance

Likewise, the Board of Directors also deemed that the level of activity between Group companies and one of its suppliers, Vallourec, of which Ms. Idrac is a member of the Supervisory Board, which is less than 3% of Vallourec's turnover<sup>(1)</sup> and less than 0.5% of the Group's purchasing in 2014, represents neither a material portion of the supplier's overall activity nor a significant portion of the Group's purchasing. The Board concluded that Ms. Idrac could be deemed as being independent.

Furthermore, the Board deemed that the level of activity between Group companies and Stena AB, of which Mr. Brock is a director,

which is less than 0.5% of Stena AB turnover<sup>(2)</sup> and less than 0.05% of the Group's purchasing in 2014, represents neither a material portion of the supplier's overall activity nor a significant portion of the Group's purchasing. The Board concluded that Mr. Brock could be deemed as being independent.

Accordingly, Mses. Barbizet, Coisne-Roquette, Idrac and Kux, and Messrs. Artus, Brock, and Lamarche were deemed to be independent directors.

The percentage of independent directors in the Board in its composition as of December 31, 2014 stood at 58.3%<sup>(3)</sup>.

**6. Additional information on the members of the Board of Directors**

**6.1. Absence of conflicts of interest**

The Board also noted the absence of potential conflicts between the Directors' duties in the best interests of the Company and the private interests of its directors. To the Company's knowledge, the members of the Board of TOTAL S.A. are not related by close family ties, there are no arrangements or agreements with clients or suppliers that facilitated their appointment, and there is no service agreement binding a director of TOTAL S.A. to one of its subsidiaries and providing for special benefits under the terms of such agreement.

**6.2. Absence of a conviction**

The current members of the Board of Directors of the Company have informed the Company that they have not been convicted, have not been associated with a bankruptcy, receivership or liquidation, and have not been incriminated or publicly sanctioned or disqualified, as stipulated in item 14.1 of Annex I of EC Regulation 809/2004 of April 29, 2004.

<sup>(1)</sup> Based on the 2013 consolidated turnover published by Vallourec.

<sup>(2)</sup> Based on the 2013 consolidated turnover published by Stena AB.

<sup>(3)</sup> Excluding the director representing employee shareholders and the director representing employees, in accordance with the recommendations made in the AFEP-MEDEF Code (point 9.2).

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Item 6 - D. Employees and Share Ownership

**D. EMPLOYEES AND SHARE OWNERSHIP****1. Group employees****1.1. Group employees as of December 31, 2014**

As of December 31, 2014, the Group had 100,307 employees belonging to 350 employing companies and subsidiaries located in 104 countries. The tables below show the breakdown of employees by the following categories: gender, nationality, business segment, region, and age bracket.

Group employees as of December 31,	2014	2013	2012
<b>Total number of employees</b>	<b>100,307</b>	<b>98,799</b>	<b>97,126</b>
Women	31.1%	30.8%	30.0%
Men	68.9%	69.2%	70.0%
French	32.2%	33.4%	35.6%
Other nationalities	67.8%	66.6%	64.4%
<b>Breakdown by business segment</b>			
Upstream			
Exploration & Production	17.2%	17.1%	16.9%
Gas & Power	1.1%	1.1%	1.7%
Refining & Chemicals			
Refining & Chemicals	50.9%	51.5%	52.5%
Trading & Shipping	0.6%	0.6%	0.6%
Marketing & Services			
Marketing & Services	21.2%	21.5%	21.6%
New Energies	7.4%	6.7%	5.2%
Corporate	1.6%	1.5%	1.5%

Group employees as of December 31,	2014	2013	2012
<b>Breakdown by region</b>			
Mainland France	32.5%	33.6%	36.0%
French overseas departments and territories	0.3%	0.4%	0.4%
Rest of Europe	23.9%	23.4%	23.5%
Africa	10.2%	10.0%	9.6%
North America	6.6%	6.6%	6.4%
Latin America	9.7%	9.6%	8.9%
Asia	15%	14.6%	13.2%
Middle East	1.3%	1.3%	1.3%
Oceania	0.5%	0.5%	0.5%
<b>Breakdown by age bracket</b>			
< 25 years	6.3%	6.5%	5.7%
25 to 34 years	29%	29.1%	29.2%
35 to 44 years	29.1%	28.8%	28.5%
45 to 54 years	22.7%	23.1%	23.7%

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> 55 years

12.9%

12.5%

12.9%

Between 2013 and 2014, the workforce increased by 1.5%. At year-end 2014, the country with the most employees after France was the United States, followed by Mexico, China and Germany.

The breakdown by gender and nationality of managers or equivalent positions (<sup>3</sup> 300 Hay points<sup>(1)</sup>) is as follows:

Breakdown of managers			
or equivalent as of December 31,	2014	2013	2012
<b>Total number of managers</b>	<b>29,271</b>	<b>28,527</b>	<b>27,639</b>
Women	24.5%	23.9%	23.5%
Men	75.5%	76.1%	76.5%
French	38.8%	39.1%	40.7%
Other nationalities	61.2%	60.9%	59.3%

*(1) The Hay method is a unique reference framework used to classify and assess jobs.*

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## Item 6 - D. Employees and Share Ownership

The table below shows the breakdown by business segment of the Group employees present (as defined in Item 4 7.5.3.2. Terminology used in social reporting , above).

Breakdown by business segment of the Group employees present as of December 31,	2014
Upstream	
Exploration & Production	16,157
Gas & Power	1,111
Refining & Chemicals	
Refining & Chemicals	49,967
Trading & Shipping	567
Marketing & Services	
Marketing & Services	20,682
New Energies	7,425
Corporate	1,551

In 2014, the WHRS covered 90,949 employees belonging to 147 subsidiaries.

Group employees included in WHRS	2014	2013	2012
<b>Employees surveyed</b>	<b>90,949</b>	<b>88,653</b>	<b>80,003</b>
% of Group employees	91%	90%	82%

**1.2. Employees joining and leaving TOTAL**

As of December 31,	2014	2013	2012
<b>Total number hired on open-ended contracts</b>	<b>10,771<sup>(a)</sup></b>	<b>10,649</b>	<b>9,787</b>
Women	33.2%	35.9%	31.0%
Men	66.8%	64.1%	69.0%
French	9.5%	10.0%	11.8%
Other nationalities	90.5%	90.0%	88.2%

<sup>(a)</sup> Recruitments in China, which represent 13% of 2014 recruitments, are long-term contracts as defined by local law.

The number of employees hired under open-ended contracts in 2014 in the consolidated companies increased by 1.1% compared with 2013. The regions in which the largest number of employees were hired were Asia (27%), followed by Latin America (26.8%) and Europe (26%), and the business segment that hired most was Refining & Chemicals (55.9%).

In 2014, the consolidated Group companies also hired 3,675 employees on fixed-term contracts. Close to 600,000 job applications were received by the companies covered by the WHRS.

As of December 31,	2014	2013	2012
<b>Departures excluding retirement/transfers/early retirement/voluntary departures and expiry of short-term contracts</b>	<b>7,195</b>	<b>6,779</b>	<b>8,324</b>
Deaths	108	106	155
Resignations	4,545	4,040	4,946
Redundancies/negotiated departures	2,413	2,495	3,006
Negotiated departures ( <i>Ruptures conventionnelles</i> , France)	129	138	217
<b>Total departures/total employees</b>	<b>7.2%</b>	<b>6.9%</b>	<b>8.6%</b>

TOTAL believes that the relationship between its management and labor unions is, in general, satisfactory.



## 2. Share ownership

### 2.1. Employee profit-sharing agreements

#### 2.1.1. *Employee incentive and profit-sharing agreements*

On June 29, 2012, the latest profit-sharing and incentive agreements were signed for fiscal years 2012, 2013 and 2014, concerning TOTAL S.A., Elf Exploration Production, Total Exploration Production France, CDF Énergie, Total Marketing Services, Total Additifs et Carburants Spéciaux, Total Lubrifiants, Total Fluides, Totalgaz, Total Raffinage-Chimie, Total Petrochemicals France, Total Raffinage France and Total Global Services. Under the terms of these agreements, the amount available for employee incentive is determined based on the return on the Group's equity (ROE) performance, as well as on the trend of the Total Recordable Injury Rate (TRIR) in view of the objectives and thresholds set out for each business unit.

The amount of the special incentive and profit-sharing reserve to be distributed by all of the companies that signed the Group

agreements for fiscal year 2014 is estimated to total approximately €113 million.

#### 2.1.2. *Company savings plans*

Pursuant to agreements signed on March 15, 2002 and their amendments, the Group created a TOTAL Group Savings Plan (PEGT) and a Complementary Company Savings Plan (PEC) for employees of the Group's French companies having subscribed to these plans. These plans allow investments in a number of mutual funds including the TOTAL ACTIONNARIAT FRANCE fund that is invested in Company shares. A Shareholder Group Savings Plan (PEG-A) has also been in place since November 19, 1999 to facilitate capital increases reserved for employees of the Group's French and foreign subsidiaries covered by this plan.

Company savings plans give employees of the Group's French companies that subscribe to these plans the ability to make discretionary contributions (which the Group's companies may, under certain conditions, supplement) to mutual funds chosen by

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### **Item 6 - D. Employees and Share Ownership**

the employee. The Group's companies made gross additional contributions (*abondement*) to various savings plans that totaled €71.7 million in 2014.

#### **2.1.3. Capital increase reserved for Group employees**

The Combined General Meeting of May 16, 2014, in its fourteenth resolution, delegated to the Board of Directors the authority to carry out in one or more occasions within a maximum period of twenty-six months, a capital increase reserved for employees having subscribed to an employee savings Plan.

The Combined General Meeting, in its eighteenth resolution, also delegated to the Board of Directors the powers necessary to accomplish in one or more occasions within a maximum period of eighteen months, a capital increase with the objective of providing employees with their registered office located outside France with benefits comparable to those granted to the employees included in the fourteenth resolution of the Combined General Meeting.

Pursuant to the fourteenth delegation of this Meeting, the Board of Directors, during its July 29, 2014, meeting, decided to proceed with a capital increase reserved for employees that included a classic offering and a leverage offering depending on the employees' choice, within the limit of 18 million shares with dividend rights as of January 1, 2014. The Chief Executive Office was also delegated all powers necessary in order to designate the dates of the beginning and end of the subscription period as well as the subscription price of the shares. This capital increase, initiated in 2014, is due to end before the Shareholders' Meeting of 2015.

The prior capital increase reserved for the Group's employees was decided by the Board of Directors on September 18, 2012, under the terms of the authorization of the Combined General Meeting of May 11, 2012, and resulted in the subscription of 10,802,215 shares with a par value of €2.50 at a unit price of €30.70. The issuance of the shares was acknowledged on April 25, 2013.

The capital increase reserved for employees approved by the Board of Directors at its meeting of September 18, 2012, was conducted under the PEG-A: (i) for employees of the Group's French subsidiaries, through the TOTAL ACTIONNARIAT FRANCE fund in the case of standard subscription and through the TOTAL FRANCE CAPITAL+ fund in the case of subscription to the leveraged offer; and (ii) for employees of foreign subsidiaries, through the TOTAL ACTIONNARIAT INTERNATIONAL CAPITALISATION fund in the case of standard subscription and through the TOTAL INTERNATIONAL CAPITAL fund in the case of subscription to the leveraged offer. In addition, U.S. employees participated in this operation by directly subscribing to American Depositary Shares (ADS), and Italian and German employees by directly subscribing to new shares at the Group Caisse Autonome (in Belgium). In addition, employees in certain other countries benefited from the leveraged subscription offer by means of a dedicated vehicle.

The previous capital increases reserved for employees were conducted under the PEG-A through the TOTAL ACTIONNARIAT FRANCE fund for employees of the Group's French subsidiaries and through the TOTAL ACTIONNARIAT INTERNATIONAL CAPITALISATION fund for the employees of foreign subsidiaries. In addition, U.S. employees participated in these operations by directly subscribing to American Depositary Shares (ADS) and Italian employees (as well as German employees starting in 2011) by directly subscribing to new shares at the Group Caisse Autonome.

#### **2.1.4. Capital increase as part of a global free share plan intended for Group employees**

The Shareholders' Meeting on May 16, 2008 authorized the Board of Directors to proceed with the free grant of Company shares to

the Group's employees as well as to executive directors of the Company or Group companies, for a period of thirty-eight months, within the limit of 0.8% of the outstanding share capital at the date of the decision of the Board of Directors to grant such shares.

Pursuant to this authorization, the Board of Directors at its meeting on May 21, 2010 decided on the terms and conditions of the global plan of free TOTAL shares in favor of the Group's employees and delegated to the Chairman and Chief Executive Officer of the Company all powers necessary for implementing this plan.

As a result, on July 2, 2012, the Chairman and Chief Executive Officer of the Company acknowledged the issuance and the final allocation of 1,366,950 ordinary shares with a nominal value of €2.50 to the designated beneficiaries at the end of the vesting period of two years in application of the grant conditions defined by the Board of Directors meeting held on May 21, 2010.

Furthermore, on July 1, 2014, the Chairman and Chief Executive Officer of the Company acknowledged the issue and definitive grant of 666,575 ordinary shares with a nominal value of €2.50 to the designated beneficiaries at the end of the vesting period of four years in application of the grant conditions defined by the Board of Directors at its meeting of May 21, 2010 (for further information on TOTAL's global free share plan, refer to B. Compensation 4.5.2. Breakdown of TOTAL performance share plans, above).

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### 2.1.5. *Pension savings plan*

The September 29, 2004 Group agreement on the provisions for retirement savings set up a Collective Retirement Savings Plan (PERCO). An amendment to this plan signed on April 15, 2011 provides for the additional contribution of credit transferred from the time-savings scheme to the PERCO (CET-PERCO gateway). An amendment to the plan signed on March 30, 2012 adjusted the management mechanisms of the PERCO in order to better secure retirement savings and extended the scope of the agreement to include Total Petrochemicals France, Total Raffinage-Chimie and Total Raffinage France.

### 2.1.6. *Employee shareholding*

The total number of TOTAL shares held directly or indirectly by the Group's employees as of December 31, 2014, is as follows:

TOTAL ACTIONNARIAT FRANCE	81,365,651
TOTAL ACTIONNARIAT INTERNATIONAL CAPITALISATION	20,969,875
TOTAL FRANCE CAPITAL+	2,450,084
TOTAL INTERNATIONAL CAPITAL	901,595
ELF PRIVATISATION N°1 <sup>(a)</sup>	
Shares held by U.S. employees	462,143
Group Caisse Autonome (Belgium)	429,663
TOTAL shares from the exercise of the Company's stock options and held as registered shares within a Company Savings Plan	3,125,389
<b>Total shares held by employees</b>	<b>109,704,400</b>

<sup>(a)</sup> The *ELF PRIVATISATION N°1* fund was merged with the *TOTAL ACTIONNARIAT FRANCE* fund in 2014.

<sup>(b)</sup> *Company savings plan.*

As of December 31, 2014, the Group's employees held, on the basis of the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code, 109,704,400 TOTAL shares, representing 4.60% of the Company's share capital and 8.78% of the voting rights that could be exercised at a Shareholders' Meeting on that date.

The management of each of the FCPEs (Collective investment funds) mentioned above is controlled by a dedicated Supervisory board, two-thirds of its members representing holders of fund units

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## Item 6 - D. Employees and Share Ownership

and one-third representing the Company. The Board is responsible for reviewing the Collective investment fund's management report and annual financial statements, as well as the financial, administrative and accounting management of the fund, exercising voting rights attached to portfolio securities, deciding contribution of securities in case of a public tender offer, deciding mergers, spin-offs or liquidations, and granting its approval prior to changes in the rules and procedures of the Collective investment fund in the conditions provided for by the rules and procedures.

These rules and procedures also stipulate a simple majority vote for decisions, except for decisions requiring a qualified majority vote of two-thirds plus one related to a change in a fund's rules and procedures, its conversion or disposal.

For employees holding shares outside of the employee collective investment funds mentioned in the table above, voting rights are exercised individually.

**2.2. Shares held by the administration and management bodies**

As of December 31, 2014, based on information from the members of the Board and the share registrar, the members of the Board and the Group's Executive Officers (Management Committee and Treasurer) held a total of less than 0.5% of the share capital:

members of the Board of Directors (including the Chairman of the Board of Directors): 210,469 shares;  
 Chairman: 186,576 shares;  
 Chief Executive Officer: 54,224 shares and 7,286.44 units in the TOTAL ACTIONNARIAT FRANCE ;  
 Management Committee (including Chief Executive Officer) and Treasurer: 878,941 shares.

By decision of the Board of Directors:

the executive directors are required to hold a number of shares of the Company equal in value to two years of the fixed portion of their annual compensation; the Chairman of the Board is required to hold 50,000 shares until the end of his functions; members of the Executive Committee are required to hold a number of shares of the Company equal in value to two years of the fixed portion of their annual compensation. These shares have to be acquired within three years from the appointment to the Executive Committee.

The number of TOTAL shares to be considered includes:

directly held shares, whether or not they are subject to transfer restrictions; and units in the collective investment fund invested in TOTAL shares.

**2.2.1. Summary of transactions in the Company's securities (Article L. 621-18-2 of the French Monetary and Financial Code)**

The following table presents transactions, of which the Company has been informed, in the Company's shares or related financial instruments carried out in 2014 by the individuals concerned under points a) through c) of Article L. 621-18-2 of the French Monetary and Financial Code.

Year 2014		Acquisition	Subscription	Transfer	Exchange	Exercise of stock options
Christophe de Margerie <sup>(a)</sup>	TOTAL shares Units in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	3,825.77				
Patrick Pouyanné <sup>(a)</sup>	TOTAL shares Units in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>			51,760.00		51,760.00
Philippe Boisseau <sup>(a)</sup>	TOTAL shares Units in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	492.25	212.13	26,560.00		26,560.00
		552.08	251.01	4,382.96		

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Arnaud Breuillac <sup>(a)</sup>	TOTAL shares				
	Units in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	213.49	2.62		
Yves-Louis Darricarrère <sup>(a)</sup>	TOTAL shares			84,380.70	84,400.00
	Units in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	1,565.54			
Patrick de La Chevardière <sup>(a)</sup>	TOTAL shares			114,680.23	120,600.00
	Units in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	452.73		1,694.21	
Jean-Jacques Guilbaud <sup>(a)</sup>	TOTAL shares			52,500.00	52,500.00
	Units in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	1,197.68	587.91		
Philippe Sauquet <sup>(a)</sup>	TOTAL shares				
	Units in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	165.61	3.21		

<sup>(a)</sup> Including the related individuals in the meaning of the provisions of the Article R. 621-43-1 of the French Monetary and Financial Code.

<sup>(b)</sup> Collective investment funds (FCPE) primarily invested in Company shares.

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## Item 7 - Major Shareholders and Related Party Transactions

**ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS****1. Major shareholders****1.1. Changes in major shareholders holdings**

For the purpose of this paragraph, major shareholders are defined as shareholders whose interest (in the share capital or voting rights) exceeds 5%. TOTAL's major shareholders as of December 31, 2014, 2013 and 2012 were as follows:

As of December 31,	2014		% of theoretical voting rights <sup>(a)</sup>	2013		2012	
	% of share capital	% of voting rights		% of share capital	% of voting rights	% of share capital	% of voting rights
<b>Blackrock, Inc.<sup>(b)</sup></b>	<b>6.2</b>	<b>5.4</b>	<b>4.9</b>	NC <sup>(c)</sup>	NC <sup>(c)</sup>	NC <sup>(c)</sup>	NC <sup>(c)</sup>
<b>Group employees<sup>(d)</sup></b>	<b>4.6</b>	<b>8.8</b>	<b>8.1</b>	4.7	8.6	4.4	8.1
<b>GBL-CNP in concert</b>	<b>3.9</b>	<b>3.9</b>	<b>3.6</b>	4.8	4.8	5.4	5.4
<i>of which Groupe Bruxelles Lambert<sup>(e)</sup></i>	3.0	3.0	2.8	3.6	3.6	4.0	4.0
<i>of which Compagnie Nationale à Portefeuille<sup>(e)</sup></i>	0.9	0.9	0.8	1.2	1.2	1.4	1.4
<b>Treasury shares</b>	<b>4.6</b>	<b>8.0</b>	<b>8.0</b>	4.6		4.6	
<i>of which TOTAL S.A.</i>	0.4		0.3	0.4		0.3	
<i>of which Total Nucléaire</i>	0.1		0.2	0.1		0.1	
<i>of which subsidiaries of Elf Aquitaine<sup>(f)</sup></i>	4.1		7.5	4.1		4.2	
<b>Other shareholders<sup>(g)</sup></b>	<b>80.7</b>	<b>81.9</b>	<b>75.4</b>	85.9	86.6	85.7	86.6
<i>of which holders of ADRs<sup>(h)</sup></i>	8.5	8.4	7.7	9.3	9.2	9.3	9.3

<sup>(a)</sup> Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all outstanding shares to which voting rights are attached, including treasury shares that are deprived of voting rights.

<sup>(b)</sup> Information sourced from the Schedule 13G filed by BlackRock, Inc. (BlackRock) with the SEC on February 2, 2015, pursuant to which BlackRock declared beneficial ownership of 147,841,504 Company shares as of December 31, 2014 (i.e., 6.2% of the Company's share capital). Blackrock specified that it had dispositive power of these shares as well as 128,791,678 voting rights (i.e., 5.4% of the Company's share capital). Furthermore, Blackrock declared not having any shared voting or dispositive powers over these shares.

<sup>(c)</sup> Not communicated.

<sup>(d)</sup> Based on the definition of employee shareholding pursuant to Article L. 225-102 of the French Commercial Code. The Amundi Group, the holding company for Amundi Asset Management, which is the manager of the employee collective investment fund TOTAL ACTIONNARIAT FRANCE (see below), filed a Schedule 13G with the SEC on February 11, 2015, declaring beneficial ownership of 172,847,066 Company shares as of December 31, 2014 (i.e., 7.3% of the Company's share capital). The Amundi Group specified that it did not have sole voting or dispositive power over any of these shares, and that it had shared voting power over 64,406,799 of these shares (i.e., 2.7% of the Company's share capital) and shared dispositive power over all of these shares. Moreover, the employee representatives serve on the Board of Directors of TOTAL S.A.

<sup>(e)</sup> Groupe Bruxelles Lambert is a company controlled jointly by the Desmarais family and Frère-Bourgeois S.A., and for the latter mainly through its direct and indirect interest in Compagnie Nationale à Portefeuille. In addition, Groupe Bruxelles Lambert and Compagnie Nationale à Portefeuille have declared that they act in concert. Moreover, these companies have executive directors who serve on the Board of Directors of TOTAL S.A.

<sup>(f)</sup> Fingestval, Financière Valorgest and Sogapar.

<sup>(g)</sup> Of which 1.59% held by registered shareholders (non-Group) in 2014.

<sup>(h)</sup> American Depositary Shares represented by American Depositary Receipts listed on the New York Stock Exchange.

As of December 31, 2014, the holdings of the major shareholders were calculated based on 2,385,267,525 shares, representing 2,406,809,364 voting rights exercisable at Shareholders' Meetings, or 2,616,502,045 theoretical voting rights<sup>(a)</sup> including:

9,030,145 voting rights attached to the 9,030,145 TOTAL shares held by TOTAL S.A. that are deprived of voting rights; and

200,662,536 voting rights attached to the 100,331,268 TOTAL shares held by TOTAL S.A. subsidiaries that cannot be exercised at Shareholders Meetings. For prior years, the holdings of the major shareholders were calculated on the basis of 2,377,678,160 shares to which 2,391,533,246 voting rights exercisable at Shareholders Meetings were attached as of December 31, 2013, and 2,365,933,146 shares to which 2,371,131,871 voting rights exercisable at Shareholders Meetings were attached as of December 31, 2012.

**1.2. Identification of the holders of bearer shares**

In accordance with Article 9 of its bylaws, the Company is authorized, to the extent permitted under applicable law, to identify the holders of securities that grant immediate or future voting rights at the Company's Shareholders Meetings.

**1.3. Temporary transfer of securities**

Pursuant to legal obligations, any legal entity or individual (with the exception of those described in paragraph IV-3 of Article L. 233-7 of the French Commercial Code) holding alone or in concert a number of shares representing more than 0.5% of the Company's voting rights pursuant to one or more temporary transfers or similar operations as described in Article L. 225-126 of the aforementioned code is required to notify the Company and the French Financial Markets Authority of the number of shares temporarily owned no later than the second business day preceding the Shareholders Meeting at midnight.

*(1) Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all outstanding shares to which voting rights are attached, including treasury shares that are deprived of voting rights.*

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### **Item 7 - Major Shareholders and Related Party Transactions**

Notifications must be e-mailed to the Company at the following address: holding.df-declarationdeparticipation@total.com.

If no notification is sent, any shares acquired under any of the above temporary transfer operations will be deprived of voting rights at the relevant Shareholders Meeting and at any Shareholders Meeting that may be held until such shares are transferred again or returned.

#### **1.4. Thresholds notifications**

In addition to the legal obligation to inform the Company and the French Financial Markets Authority within four trading days of the date on which the number of shares (or securities similar to shares or voting rights pursuant to Article L. 233-9 of the French Commercial Code) held represents more than 5%, 10%, 15%, 20%, 25%, 30%, one-third, 50%, two-thirds, 90% or 95% of the share capital or theoretical voting rights<sup>(1)</sup> (Article L. 233-7 of the French Commercial Code), any individual or legal entity who directly or indirectly comes to hold a percentage of the share capital, voting rights or rights giving future access to the Company's share capital which is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Company, within fifteen days of the date on which each of the above thresholds is exceeded, by registered mail with return receipt requested, and indicate the number of shares held.

In case the shares above these thresholds are not declared, any shares held in excess of the threshold that should have been declared will be deprived of voting rights at Shareholders Meetings if, at a meeting, the failure to make a declaration is acknowledged and if one or more shareholders holding collectively at least 3% of the Company's share capital or voting rights so request at that meeting.

Any individual or legal entity is also required to notify the Company in due form and within the time limits stated above when their direct or indirect holdings fall below each of the aforementioned thresholds.

Notifications must be sent to the Vice President of Investor Relations in London.

#### **1.5. Legal threshold notifications in 2014**

In AMF notice No. 214C0695 dated May 5, 2014, Blackrock stated that, as of April 30, 2014, they had risen above the 5% share capital threshold and that they held 119,199,504 TOTAL shares representing as many voting rights, *i.e.*, 5.01% of the share capital and 4.57% of the theoretical voting rights<sup>(1)</sup> (based on share capital of 2,378,259,685 shares representing 2,607,207,684 voting rights).

#### **1.6. Holdings above the legal thresholds**

In accordance with Article L. 233-13 of the French Commercial Code, to TOTAL's knowledge two known shareholders hold 5% or more of TOTAL's share capital or voting rights at year-end 2014.

As of December 31, 2014, the TOTAL ACTIONNARIAT FRANCE collective investment fund held 3.41% of the share capital representing 6.68% of the voting rights exercisable at Shareholders Meetings and 6.14% of the theoretical voting rights<sup>(1)</sup>.

As of December 31, 2014, Blackrock held 6.20% of the share capital representing 5.35% of the voting rights exercisable at Shareholders Meetings and 4.92% of the theoretical voting rights<sup>(1)</sup>.

#### **1.7. Shareholders agreements**

TOTAL is not aware of any agreements among its shareholders.

## **2. Treasury shares**



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As of December 31, 2014, the Company held 109,361,413 TOTAL shares either directly or through its indirect subsidiaries, which represented 4.58% of the share capital on that date. By law, these shares are deprived of voting rights.

For more details, refer to Item 10 1. Share capital 1.5. TOTAL shares held by the Company or its subsidiaries , below.

### **2.1. TOTAL shares held directly by the Company**

The Company held 9,030,145 treasury shares as of December 31, 2014, representing 0.38% of the share capital on that date.

### **2.2. TOTAL shares held directly by Group companies**

As of December 31, 2014, Total Nucléaire, a Group company wholly-owned indirectly by TOTAL, held 2,023,672 TOTAL shares. As of December 31, 2014, Financière Valorgest, Sogapar and Fingestval, indirect subsidiaries of Elf Aquitaine, held 22,203,704, 4,104,000 and 71,999,892 TOTAL shares respectively, representing a total of 100,331,268 shares. As of December 31, 2014, the Company held 4.21 % of the share capital through its indirect subsidiaries.

## **3. Related party transactions**

The Group's main transactions with related parties (principally all the investments carried under the equity method) and the balances receivable from and payable to them are shown in Note 24 to the Consolidated Financial Statements.

In the ordinary course of its business, TOTAL enters into transactions with various organizations with which certain of its directors or executive officers may be associated, but no such transactions of a material or unusual nature have been entered into during the period commencing on January 1, 2012, and ending on March 26, 2015.

*(1) Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all outstanding shares to which voting rights are attached, including treasury shares that are deprived of voting rights.*

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**ITEM 8. FINANCIAL INFORMATION**

**1. Consolidated Statements and other supplemental information**

See pages F-1 through F-107 for TOTAL's Consolidated Financial Statements and Notes thereto and pages S-1 through S-17 for other supplemental information.

**2. Dividend**

**2.1. Dividend policy**

**2.1.1. Dividend payment policy**

The Company has paid dividends on its share capital in each year since 1946. Future dividends will depend on the Company's earnings, financial condition and other factors. The payment and amount of dividends are subject to the recommendation of the Board of Directors and resolution by the Company's shareholders at the annual Shareholders' Meeting.

On October 28, 2010, TOTAL S.A.'s Board of Directors adopted a policy based on quarterly dividend payments starting in fiscal year 2011.

**2.1.2. Fiscal years 2014 and 2015 dividends**

TOTAL has paid three quarterly interim dividends for fiscal year 2014:

the first quarterly interim dividend of €0.61 per share for fiscal year 2014, approved by the Board of Directors on April 29, 2014, was paid in cash on September 26, 2014 (the ex-dividend date was September 23, 2014);

the second quarterly interim dividend of €0.61 per share for fiscal year 2014, approved by the Board of Directors on July 29, 2014, was paid in cash on December 17, 2014 (the ex-dividend date was December 15, 2014); and

the third quarterly interim dividend of €0.61 per share for fiscal year 2014, approved by the Board of Directors on October 28, 2014, was paid in cash on March 25, 2015 (the ex-dividend date was March 23, 2015).

After closing the 2014 accounts, the Board of Directors decided on February 11, 2015, to propose to the Annual Shareholders' Meeting on May 29, 2015 an annual dividend of €2.44/share for fiscal year 2014, an increase of 2.5% compared to 2013. Taking into account the interim dividends for the first three quarters of 2014 decided by the Board of Directors, the remaining 2014 dividend is €0.61/share, equal to the three 2014 interim dividends. The Board of Directors also decided to propose to the shareholders the option of receiving the remaining 2014 dividend payment in new shares benefiting from a 10% discount<sup>(1)</sup>. Pending the approval at the Annual Shareholders' Meeting, the ex-dividend date would be June 8, 2015, and the payment date for the cash dividend or the delivery of the new shares, depending on the election of the shareholder, would be set for July 1, 2015. Subject to the applicable legislative and regulatory provisions, and pending the approval by the Board of Directors and the shareholders at the Shareholders' Meeting for the accounts and the final dividend, the ex-date calendar for the interim quarterly dividends and the final dividend for fiscal year 2015 is expected to be as follows:

<sup>1</sup>st interim dividend: September 28, 2015

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2<sup>nd</sup> interim dividend: December 21, 2015

3<sup>rd</sup> interim dividend: March 21, 2016

Remainder: June 6, 2016

The provisional ex-dividend dates above relate to the TOTAL shares traded on Euronext Paris.

Dividends in euros per share for the last five fiscal years:

2010: €2.28

2011: €2.28

2012: €2.34

2013: €2.38

2014: €2.44<sup>(1)</sup>

### 2.2. Dividend payment

BNP Paribas Securities Services manages the payment of the dividend, which is made through financial intermediaries using the Euroclear France direct payment system.

Since November 12, 2014, JP Morgan Chase Bank (4 New York Plaza, New York, NY 10005-1401, USA) has managed the payment of dividends to holders of American Depositary Receipts (ADRs). Prior to that date, payments were managed by The Bank of New York Mellon.

Dividends paid to holders of ADRs will be subject to a charge by the Depositary for any expenses incurred by the Depositary in the conversion of euros to dollars. See Item 10 – 5. Taxation, for a summary of certain U.S. federal and French tax consequences to holders of shares and ADRs.

#### 2.2.1. Dividend payment of stock certificates

TOTAL issued stock certificates (*certificats représentatifs d'actions*, CRs) as part of the public exchange offer for Total Petrochemicals & Refining SA/NV (formerly PetroFina) shares.

The CR is a stock certificate provided for by French rules, issued by Euroclear France, intended to circulate exclusively outside of France, and which may not be held by French residents. The CR is freely convertible from a physical certificate into a security registered on a custody account and vice-versa. However, in compliance with the Belgian law of December 14, 2005 on the dematerialization of securities in Belgium, CRs may only be delivered in the form of a dematerialized certificate as of January 1, 2008, the effective date of the law. In addition, ING Belgique is the bank handling the payment of all coupons detached from outstanding CRs.

No fees are applicable to the payment of coupons detached from CRs, except for any income or withholding taxes; the payment may be received on request at the following bank branches:

ING Belgique Avenue Marnix 24, 1000 Brussels, Belgium

BNP Paribas Fortis Avenue des Arts 45, 1040 Brussels, Belgium

KBC BANK N.V. Avenue du Port 2, 1080 Brussels, Belgium

<sup>(1)</sup> The issuance price of each new share will be equal to 90% of the average opening price of TOTAL S.A.'s shares on Euronext Paris over the twenty trading days preceding the Annual Shareholders Meeting, reduced by the amount of the remaining dividend, and rounded up to the nearest euro centime.

<sup>(2)</sup> Pending approval at the May 29, 2015 Shareholders Meeting.

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**3. Significant changes since the date of the Company's Consolidated Financial Statements**

On January 29, 2015, TOTAL acquired a 10% stake in the new ADCO concession in Abu Dhabi (United Arab Emirates) for a forty-year period starting from January 1, 2015. It covers the fifteen main onshore fields in Abu Dhabi and represents more than half of the Emirate's production. TOTAL has been appointed Asset Leader for the Bu Hasa field and the Southeast group of fields (covering Sahil, Asab, Shah, Qusahwira and Mender fields), which represent approximately two-thirds of ADCO's production. In 2015, ADCO's entire production is expected to be approximately 1.6 million barrels per day (Mb/d), with an objective to increase output to 1.8 Mb/d from 2017. As the first international company to enter the new ADCO concession in Abu Dhabi, Total demonstrates its ability to access resources under good conditions

and create strong partnerships in a strategic region with numerous development opportunities.

On February 2, 2015, TOTAL completed the sale of its adhesive subsidiary Bostik to Arkema. The accounting effects of this sale, which occurred after the close of the Consolidated Financial Statements for the year ended December 31, 2014 will be reflected in TOTAL S.A.'s intermediate Consolidated Financial Statements for the first quarter of 2015.

For a description of other significant changes that have occurred since the date of the Company's Consolidated Financial Statements, see Item 4 B. Business Overview and Item 5. Operating and Financial Review and Prospects, which include descriptions of certain recent 2015 activities.

**4. Legal or arbitration proceedings**

There are no governmental, legal or arbitration proceedings, including any proceeding that the Company is aware of, threatened with or even pending (including the main legal proceedings described hereafter) that could have, or could have had during the last twelve months, a material impact on the Group's financial situation or profitability. While it is not feasible to predict the outcome of the pending claims, proceedings, and investigations described below with certainty, management is of the opinion that their ultimate disposition should not have a material adverse effect on the Company's financial position, cash flows, or results of operations.

**4.1. Antitrust investigations**

The principal antitrust proceedings in which the Group's companies are involved are described below.

**4.1.1. Refining & Chemicals segment**

As part of the spin-off of Arkema<sup>(1)</sup> in 2006, TOTAL S.A. and certain other Group companies agreed to grant Arkema for a period of ten years a guarantee for potential monetary consequences related to antitrust proceedings arising from events prior to the spin-off. As of December 31, 2013, all public and civil proceedings covered by the guarantee were definitively resolved in Europe and in the United States. Despite the fact that Arkema has implemented since 2001 compliance procedures that are designed to prevent its employees from violating antitrust provisions, it is not possible to exclude the possibility that the relevant authorities could commence additional proceedings involving Arkema regarding events prior to the spin-off.

**4.1.2. Marketing & Services segment**

Following the appeal lodged by the Group's companies against the European Commission's 2008 decision fining Total Marketing Services an amount of €128.2 million in relation to practices regarding a product line of the Marketing & Services segment, which the company had already paid, and concerning which TOTAL S.A. was declared jointly liable as the parent company, the relevant European court decided during the third quarter of 2013 to reduce the fine imposed on Total Marketing Services to €125.5 million without modifying the liability of TOTAL S.A. as parent company. Appeals have been lodged against this judgment.

In the Netherlands, a civil proceeding was initiated against TOTAL S.A., Total Marketing Services and other companies by third parties alleging damages in connection with practices already sanctioned by the European Commission. At this stage, the plaintiffs have still not communicated the amount of their claim.

Finally, in Italy, in 2013, a civil proceeding was initiated against TOTAL S.A. and its subsidiary Total Aviazione Italia Srl before the competent Italian civil court. The plaintiff claims against TOTAL S.A., its subsidiary and other third parties, damages that it estimates to be nearly €908 million. This proceeding follows practices that had been sanctioned by the Italian competition authority in 2006. The proceeding has not progressed; the existence and the assessment of the alleged damages in this proceeding involving multiple defendants remain strongly contested.

Whatever the evolution of the proceedings described above, the Group believes that their outcome should not have a material adverse effect on the Group's financial situation or consolidated results.

**4.2. Grande Paroisse**

An explosion occurred at the Grande Paroisse industrial site in the city of Toulouse in France on September 21, 2001. Grande Paroisse, a former subsidiary of Atofina which became a subsidiary of Elf Aquitaine Fertilisants on December 31, 2004, as part of the reorganization of the Chemicals segment, was principally engaged in the production and sale of agricultural fertilizers. The explosion, which involved a stockpile of ammonium nitrate pellets, destroyed a portion of the site and caused the death of thirty-one people, including twenty-one workers at the site, and injured many others. The explosion also caused significant damage to certain property in part of the city of Toulouse.

This plant has been closed and individual assistance packages have been provided for employees. The site has been rehabilitated.

On December 14, 2006, Grande Paroisse signed, under the supervision of the city of Toulouse, a deed whereby it donated the former site of the AZF plant to the greater agglomeration of Toulouse (CAGT) and the Caisse des dépôts et consignations and its subsidiary ICADE. Under this deed, TOTAL S.A. guaranteed the site remediation obligations of Grande Paroisse and granted a €10 million endowment to the InNaBioSanté research foundation as part of the setting up of a cancer research center at the site by the city of Toulouse.

<sup>(1)</sup> *Arkema is used in this section to designate those companies of the Arkema group whose ultimate parent company is Arkema S.A. Arkema became an independent company after being spun-off from TOTAL S.A. in May 2006.*

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After having articulated several hypotheses, the Court-appointed experts did not maintain in their final report filed on May 11, 2006, that the accident was caused by pouring a large quantity of a chlorine compound over ammonium nitrate. Instead, the experts have retained a scenario where a container of chlorine compound sweepings was poured between a layer of wet ammonium nitrate covering the floor and a quantity of dry agricultural nitrate at a location not far from the principal storage site. This is claimed to have caused an explosion which then spread into the main storage site. Grande Paroisse was investigated based on this new hypothesis in 2006; Grande Paroisse is contesting this explanation, which it believes to be based on elements that are not factually accurate.

On July 9, 2007, the investigating magistrate brought charges against Grande Paroisse and the former Plant Manager before the Toulouse Criminal Court. In late 2008, TOTAL S.A. and Mr. Thierry Desmarest, Chairman and CEO at the time of the event, were summoned to appear in Court pursuant to a request by a victims association.

On November 19, 2009, the Toulouse Criminal Court acquitted both the former Plant Manager, and Grande Paroisse due to the lack of reliable evidence for the explosion. The Court also ruled that the summonses against TOTAL S.A. and Mr. Thierry Desmarest were inadmissible.

Due to the presumption of civil liability that applied to Grande Paroisse, the Court declared Grande Paroisse civilly liable for the damages caused by the explosion to the victims in its capacity as custodian and operator of the plant.

The Prosecutor's office, together with certain third parties, appealed the Toulouse Criminal Court verdict. In order to preserve its rights, Grande Paroisse lodged a cross-appeal with respect to civil charges.

By its decision of September 24, 2012, the Court of Appeal of Toulouse (Cour d'appel de Toulouse) upheld the lower court verdict pursuant to which the summonses against TOTAL S.A. and Mr. Thierry Desmarest were determined to be inadmissible. This element of the decision has been appealed by certain third parties before the French Supreme Court (Cour de cassation).

The Court of Appeal considered, however, that the explosion was the result of the chemical accident described by the court-appointed experts. Accordingly, it convicted the former Plant Manager and Grande Paroisse. This element of the decision has been appealed by the former Plant Manager and Grande Paroisse before the French Supreme Court (Cour de cassation), which has the effect of suspending their criminal sentences. On January 13, 2015, the French Supreme Court (Cour de Cassation) fully quashed the decision of September 24, 2012. The impugned decision is set aside and the parties find themselves in the position they were in before the decision was rendered. The case is referred back to the Court of Appeal of Paris for a new criminal trial. The trial date has not yet been set.

A compensation mechanism for victims was set up immediately following the explosion. €2.3 billion was paid for the compensation of claims and related expenses amounts. A €10.3 million reserve remains booked in the Group's consolidated financial statements as of December 31, 2014.

#### **4.3. Blue Rapid and the Russian Olympic Committee – Russian regions and Interneft**

Blue Rapid, a Panamanian company, and the Russian Olympic Committee filed a claim for damages with the Paris Commercial Court against Elf Aquitaine, alleging a so-called non-completion by a former subsidiary of Elf Aquitaine of a contract related to an

exploration and production project in Russia negotiated in the early 1990s. Elf Aquitaine believed this claim to be unfounded and opposed it. On January 12, 2009, the Commercial Court of Paris rejected Blue Rapid's claim against Elf Aquitaine and found that the Russian Olympic Committee did not have standing in the matter. Blue Rapid and the Russian Olympic Committee appealed this decision. On June 30, 2011, the Court of Appeal of Paris dismissed as inadmissible the claim of Blue Rapid and the Russian Olympic Committee against Elf Aquitaine, notably on the grounds of the contract having lapsed. Blue Rapid and the Russian Olympic Committee appealed this decision to the French Supreme Court.

In connection with the same facts, and fifteen years after the termination of the exploration and production contract, a Russian company, which was held not to be the contracting party to the contract, and two regions of the Russian Federation that were not even parties to the contract, launched an arbitration procedure against the aforementioned former subsidiary of Elf Aquitaine that was liquidated in 2005, claiming alleged damages of \$22.4 billion. For the same reasons as those successfully adjudicated by Elf Aquitaine against Blue Rapid and the Russian Olympic Committee, the Group considers this claim to be unfounded as a matter of law and fact. The Group has lodged a criminal complaint to denounce the fraudulent claim of which the Group believes it is a victim and, has taken and reserved its rights to take other actions and measures to defend its interests.

#### **4.4. Iran**

In 2003, the United States Securities and Exchange Commission (SEC) followed by the Department of Justice (DoJ) issued a formal order directing an investigation in connection with the pursuit of business in Iran by certain oil companies including, among others, TOTAL.

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The inquiry concerned an agreement concluded by the Company with consultants concerning gas fields in Iran and aimed at verifying whether certain payments made under this agreement would have benefited Iranian officials in violation of the Foreign Corrupt Practices Act (FCPA) and the Company's accounting obligations.

In late May 2013, and after several years of discussions, TOTAL reached settlements with the U.S. authorities (a Deferred Prosecution Agreement with the DoJ and a Cease and Desist Order with the SEC). These settlements, which put an end to these investigations, were concluded without admission of guilt and in exchange for TOTAL respecting a number of obligations, including the payment of a fine (\$245.2 million) and civil compensation (\$153 million) that occurred during the second quarter of 2013. The reserve of \$398.2 million that was booked in the financial statements as of June 30, 2012, has been fully released. By virtue of these settlements, TOTAL also accepted the appointment of a French independent compliance monitor to review the Group's compliance program and to recommend possible improvements. For more information, refer to Item 4 C. Other Matters 7.3.7.1. Preventing corruption, above.

With respect to the same facts, TOTAL and its late Chairman and Chief Executive Officer, who was President of the Middle East division at the time of the facts, were placed under formal investigation in France following a judicial inquiry initiated in 2006. In late May 2013, the Prosecutor's office recommended that the case be sent to trial. This position was reiterated by the Prosecutor's office in June 2014. By order notified in October 2014, the investigating magistrate decided to refer the case to trial.

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At this point, the Company considers that the resolution of these cases is not expected to have a significant impact on the Group's financial situation or consequences for its future planned operations.

**4.5. Oil-for-Food Program**

Several countries have launched investigations concerning possible violations related to the United Nations (UN) Oil-for-Food Program in Iraq.

Pursuant to a French criminal investigation, certain current or former Group employees were placed under formal criminal investigation for possible charges as accessories to the

misappropriation of corporate assets and as accessories to the corruption of foreign public agents. In 2007, the criminal investigation was closed and the case was transferred to the Prosecutor's office. In 2009, the Prosecutor's office recommended to the investigating magistrate that the case against the Group's current and former employees and TOTAL's late Chairman and Chief Executive Officer, formerly President of the Group's Exploration & Production division, not be pursued.

In early 2010, despite the recommendation of the Prosecutor's office, a new investigating magistrate, having taken over the case, decided to indict TOTAL S.A. on bribery charges as well as complicity and influence peddling. The indictment was brought eight years after the beginning of the investigation without any new evidence being introduced.

In October 2010, the Prosecutor's office recommended to the investigating magistrate that the case against TOTAL S.A., the Group's former employees and TOTAL's late Chairman and Chief Executive Officer not be pursued. However, by ordinance notified in early August 2011, the investigating magistrate on the matter decided to send the case to trial. On July 8, 2013, TOTAL S.A., the Group's former employees and TOTAL's late Chairman and Chief Executive Officer were cleared of all charges by the Criminal Court, which found that none of the offenses for which they had been prosecuted were established. On July 18, 2013, the Prosecutor's office appealed the parts of the Criminal Court's decision acquitting TOTAL S.A. and certain of the Group's former employees. TOTAL's late Chairman and Chief Executive Officer's acquittal issued on July 8, 2013 was irrevocable since the Prosecutor's office did not appeal this part of the Criminal Court's decision. The appeal hearing is expected to start in October 2015.

**4.6. Italy**

As part of an investigation led by the Prosecutor of the Republic of the Potenza Court, Total Italia and certain Group employees were the subjects of an investigation related to certain calls for tenders that Total Italia made for the preparation and development of an oil field.

The criminal investigation was closed in the first half of 2010.

In May 2012, the Judge of the preliminary hearing decided to dismiss the charges against some of the Group's employees and to refer the case for trial for a reduced number of charges. The trial started in September 2012.

**4.7. Rivunion**

On July 9, 2012, the Swiss Tribunal Fédéral (Switzerland's Supreme Court) rendered a decision against Rivunion, a wholly-owned subsidiary of Elf Aquitaine, confirming a tax reassessment in the amount of CHF 171 million (excluding interest for late payment). According to the Tribunal, Rivunion was held liable as tax collector for withholding taxes owed by the beneficiaries of taxable services. Rivunion, in liquidation since March 13, 2002 and unable to recover the amounts corresponding to the withholding

taxes in order to meet its fiscal obligations, has been subject to insolvency proceedings since November 1, 2012. On August 29, 2013, the Swiss federal tax administration lodged a claim as part of the insolvency proceedings of Rivunion, for an amount of CHF 284 million, including CHF 171 million of principal as well as interest for late payment. Rivunion's insolvency proceedings was terminated on December 4, 2014 and the company was removed from the Geneva commercial register on December 11, 2014.

**4.8. Total Gabon**

On February 14, 2014, Total Gabon received a tax re-assessment notice from the Ministère de l'Économie et de la Prospective of the Gabonese Republic accompanied by a partial tax collection notice, following the tax audit of Total Gabon in relation to the years 2008 to 2010. The partial tax collection procedure



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was suspended on March 5, 2014 further to the action that Total Gabon engaged before the Tax Administration.

Discussions with the Gabonese authorities led to the termination in early November 2014 of the tax assessment procedure to which Total Gabon was subject. Net income for Total Gabon as of September 30, 2014 includes the impact of the closing of this procedure, following which Total Gabon obtained a tax clearance for the relevant period, extended to and including the years 2011 to 2013.

### **4.9. Kashagan**

In Kazakhstan, the start-up of production of the Kashagan field, in which TOTAL holds an interest of 16.81%, occurred on September 11, 2013. Following the detection of a gas leak from the export pipeline, production was stopped on September 24, 2013. Production was resumed but then stopped again shortly thereafter following the detection of another leak. Pressure tests were performed in a fully controlled environment revealing some other potential leaks/cracks. The production of the field was stopped and a thorough investigation was launched.

After the identification of a significant number of anomalies in the oil and gas export lines, it was decided to replace both pipelines. The remedial work will be conducted according to best international oil and gas field practices and strict HSE requirements in order to address, mitigate and remedy all problems prior to the restart of production.

On December 13, 2014, the Republic of Kazakhstan and the co-venturers of the consortium settled the disputes raised over the last several years concerning a number of operational, financial and environmental matters. This settlement agreement definitively closed these proceedings without a significant impact on the Group's financial situation or consolidated results.

### **4.10. Djibouti**

Following the confirmation of their conviction by a final judgment of the facts regarding pollution that occurred in the port of Djibouti in 1997, Total Djibouti SA and Total Marketing Djibouti SA each received in September 2014 an order to pay €53.8 million to the Republic of Djibouti. The amounts were contested by the two companies which, unable to deal with the liability, in accordance with local law, filed declarations of insolvency with the court on October 7, 2014. With respect to Total Djibouti SA, the insolvency proceeding comprised a recovery plan.

Following a judgment delivered on November 18, 2014, the recovery plan proposed by Total Djibouti SA was rejected and the two companies were put into liquidation.

Total Djibouti SA, a wholly-owned subsidiary of TOTAL S.A., fully holds the capital of Total Marketing Djibouti SA.

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Item 9 - The Offer and Listing

**ITEM 9. THE OFFER AND LISTING****1. Markets**

The principal trading market for the shares is the Euronext Paris exchange in France. The shares are also listed on Euronext Brussels and the London Stock Exchange.

**2. Offer and listing details****2.1. Trading on Euronext Paris**

Official trading of listed securities on Euronext Paris, including the shares, is transacted through French investment service providers that are members of Euronext Paris and takes place continuously on each business day in Paris from 9:00 a.m. to 5:30 p.m. (Paris time), with a fixing of the closing price at 5:35 p.m. Euronext Paris may suspend or resume trading in a security listed on Euronext Paris if the quoted price of the security exceeds certain price limits defined by the regulations of Euronext Paris.

The markets of Euronext Paris currently settle and transfer ownership three trading days after a transaction (T+3). On January 14, 2014, Euronext announced its decision to shorten the standard settlement cycle from T+3 to T+2 for all securities. This migration is expected to take place on October 6, 2014. Highly liquid shares, including those of the Company, are eligible for deferred settlement (*Service de Règlement Différé* - SRD). Payment and delivery for shares under the SRD occurs on the last trading day of each month. Use of the SRD service requires payment of a commission.

In France, the shares are included in the principal index published by Euronext Paris (the CAC 40 Index). The CAC 40 Index is

derived daily by comparing the total market capitalization of forty stocks traded on Euronext Paris to the total market capitalization of the stocks that made up the CAC 40 Index on December 31, 1987. Adjustments are made to allow for expansion of the sample due to new issues. The CAC 40 index indicates trends in the French stock market as a whole and is one of the most widely followed stock price indices in France. In the UK, the shares are listed in both the FTSE Eurotop 100 and FTSEurofirst 300 index. As a result of the creation of Euronext, the shares are included in Euronext 100, the index representing Euronext's blue chip companies based on market capitalization. The shares are also included in the Dow Jones Stoxx Europe 50 and Dow Jones Euro Stoxx 50, blue chip indices comprised of the fifty most highly capitalized and most actively traded equities throughout Europe and within the European Monetary Union, respectively. Since June 2000, the shares have been included in the Dow Jones Global Titans 50 Index which consists of fifty global companies selected based on market capitalization, book value, assets, revenue and earnings.

The table below sets forth, for the periods indicated, the reported high and low quoted prices in euros for the currently outstanding shares on Euronext Paris.

Price per share (€)	High	Low
2010	46.735	35.655
2011	44.550	29.400
2012	42.970	33.420
2013	45.670	35.175
First Quarter	40.820	37.040

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Second Quarter	40.400	35.175
Third Quarter	43.785	36.615
Fourth Quarter	45.670	41.050
<b>2014</b>	<b>54.710</b>	<b>38.250</b>
First Quarter	48.250	41.310
Second Quarter	54.710	47.310
Third Quarter	53.650	47.145
September	52.090	48.470
Fourth Quarter	51.290	38.250
October	51.290	40.565
November	49.425	43.505
December	46.565	38.250
<b>2015 (through February 27)</b>	<b>48.600</b>	<b>39.345</b>
January	46.860	39.345
February	48.600	45.500

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**2.2. Trading on the New York Stock Exchange**

ADSs evidenced by ADRs have been listed on the New York Stock Exchange since October 25, 1991. Since November 12, 2014, JPMORGAN CHASE BANK, N.A. serves as depositary with respect to the ADSs evidenced by ADRs traded on the New York

Stock Exchange, replacing The Bank of New York Mellon. One ADS corresponds to one TOTAL share. The table below sets forth, for the periods indicated, the reported high and low prices quoted in dollars for the currently outstanding ADSs evidenced by ADRs on the New York Stock Exchange.

Price per ADR (\$)	High	Low
2010	67.52	43.07
2011	64.44	40.00
2012	57.06	41.75
2013	62.45	45.93
First Quarter	55.35	47.50
Second Quarter	52.05	45.93
Third Quarter	59.25	47.69
Fourth Quarter	62.45	56.17
<b>2014</b>	<b>74.220</b>	<b>48.433</b>
First Quarter	66.297	56.030
Second Quarter	74.220	65.460
Third Quarter	73.090	62.530
September	67.700	62.530
Fourth Quarter	64.016	48.433
October	64.016	53.320
November	60.686	55.190
December	57.780	48.433
<b>2015 (through February 27)</b>	<b>55.860</b>	<b>47.310</b>
January	53.140	47.310
February	55.860	51.620

**ITEM 10. ADDITIONAL INFORMATION****1. Share capital****1.1. Share capital as of December 31, 2014**

€5,963,168,812.50, consisting of 2,385,267,525 fully paid ordinary shares

**1.2. Features of the shares**

There is only one class of shares, and the par value of each share is €2.50. A double voting right is granted to every shareholder, under certain conditions (see 2.4.1. Voting rights , below). The shares are in bearer or registered form at the shareholder's discretion. The shares are in book-entry form and registered in an account.

**1.3. Authorized share capital not issued as of December 31, 2014**

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A table summarizing the currently valid delegations and authorizations to increase share capital that have been granted by the Shareholders Meeting to the Board of Directors, and the uses made of those delegations and authorizations in fiscal year 2014, appears in the table in 1.3.9. , below.

### **1.3.1. Tenth resolution of the Shareholders Meeting held on May 16, 2014**

Delegation of authority granted by the Shareholders Meeting to the Board of Directors to increase the share capital by issuing common shares or other securities granting immediate or future rights to the Company s share capital, maintaining shareholders pre-emptive subscription rights up to a maximum nominal amount of €2.5 billion, *i.e.*, 1 billion shares (delegation of authority valid for twenty-six months).

Furthermore, the maximum nominal amount of the debt securities granting rights to the Company s share capital that may be issued

pursuant to the tenth, eleventh and thirteenth resolutions may not exceed €10 billion, or their exchange value, on the date of issuance.

### **1.3.2. Eleventh and twelfth resolutions of the Shareholders Meeting held on May 16, 2014**

Delegation of authority granted by the Shareholders Meeting to the Board of Directors to increase the share capital by issuing common shares or other securities granting immediate or future rights to the Company s share capital, canceling shareholders pre-emptive subscription rights, including the compensation comprised of securities as part of a public exchange offer, provided that they meet the requirements of Article L. 225-148 of the French Commercial Code. This resolution grants the Board of Directors the authority to grant a priority period for shareholders to subscribe to these securities pursuant to the provisions of Article L. 225-135 of the French Commercial Code. The total amount of the capital increases without pre-emptive subscription rights that may occur immediately or in the future cannot exceed the nominal amount of €575 million, *i.e.*, 230 million shares, par value €2.50 (delegation of authority valid for twenty-six months). Furthermore, under the twelfth resolution of the Shareholders Meeting held on May 16, 2014, the Board is authorized, for each of the issuances made in connection with the eleventh resolution, to increase the number of securities to be issued within the limit of the ceiling of 15% of the initial issuance (at the same price as the price fixed for the initial issuance) within the limit of the ceiling fixed under the eleventh resolution. The nominal amount of the capital increases is counted against the maximum aggregate nominal amount of €2.5 billion authorized by the tenth resolution of the Shareholders Meeting held on May 16, 2014.

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### Item 10 - 1. Share capital

Furthermore, the maximum nominal amount of the debt securities granting rights to the Company's share capital that may be issued pursuant to the above mentioned tenth and eleventh resolutions and the thirteenth resolution may not exceed €10 billion, or their exchange value, on the date of issuance.

#### ***1.3.3. Thirteenth resolution of the Shareholders Meeting held on May 16, 2014***

Delegation of power granted by the Shareholders Meeting to the Board of Directors to increase the share capital by issuing new ordinary shares or other securities granting immediate or future rights to the Company's share capital as compensation of in-kind contribution granted to the Company, by an amount not exceeding 10% of the share capital outstanding at the date of the Shareholders Meeting on May 16, 2014 (delegation of authority valid for twenty-six months). The nominal amount of the capital increases is counted against the maximum aggregate nominal amount of €575 million authorized by the eleventh resolution of the Shareholders Meeting held on May 16, 2014.

Furthermore, the maximum nominal amount of the debt securities granting rights to the Company's share capital that may be issued pursuant to the above mentioned tenth, eleventh and thirteenth resolutions may not exceed €10 billion, or their exchange value, on the date of issuance.

#### ***1.3.4. Fourteenth resolution of the Shareholders Meeting held on May 16, 2014***

Delegation of authority to the Board of Directors to complete capital increases reserved for employees participating in a company savings plan (*Plan d'épargne d'entreprise*), up to a maximum of 1.5% of the outstanding share capital on the date of the decision of the Board of Directors to proceed with the issue (delegation of authority valid for twenty-six months), it being specified that the amount of the capital increase is counted against the maximum aggregate nominal amount of €2.5 billion authorized by the tenth resolution of the Shareholders Meeting on May 16, 2014. This delegation renders ineffective, up to the unused portion, any prior delegation relating to the same subject matter.

#### ***1.3.5. Fifteenth resolution of the Shareholders Meeting held on May 16, 2014***

Delegation of authority to the Board of Directors to complete capital increases reserved for employees with their registered office located outside France with benefits comparable to those granted to the employees included in the fifteenth resolution of the Combined Shareholders Meeting of May 16, 2014, up to a maximum amount common to the foregoing fourteenth resolution of 1.5% of the outstanding share capital on the date of the decision of the Board of Directors to proceed with the issue (delegation of authority valid for eighteen months), it being specified that the amount of the capital increase is counted against the maximum aggregate nominal amount of €2.5 billion authorized by the tenth resolution of the Shareholders Meeting on May 16, 2014.

Pursuant to the delegation granted by virtue of the fourteenth resolution, the Board of Directors, during its July 29, 2014 meeting, decided to proceed with a capital increase reserved for employees that included a classic offering and a leverage offering depending on the employees' choice, within the limit of 18 million shares with a supplement whose amount is included within the limit of 18 million shares.

Due to the use of the delegations stipulated in the fourteenth resolution of the Shareholders Meeting held on May 16, 2014, by the Board of Directors on July 29, 2014, and given that the Board of Directors did not make use of the delegations of authority granted by the eleventh, thirteenth and fifteenth resolutions, the authorized capital not issued was €2.46 billion as of December 31, 2014, representing 982 million shares.

#### ***1.3.6. Sixteenth resolution of the Shareholders Meeting held on May 16, 2014***

Authority to grant restricted outstanding or new TOTAL shares to employees of the Group and to executive directors up to a maximum of 0.8% of the share capital outstanding on the date of the meeting of the Board of Directors that approves the restricted share grants. In addition, the shares granted to the Company's executive directors cannot exceed 0.01% of the outstanding share capital on the date of the meeting of the Board of Directors that approves the grants (authorization valid for thirty-eight months).

Pursuant to this authorization: 4,486,300 outstanding shares were awarded by the Board of Directors on July 29, 2014, including 48,000 outstanding shares awarded to the Chairman and Chief Executive Officer.

As of December 31, 2014, 14,595,840 shares, including 190,526 shares to the Company's executive directors, could therefore still be awarded pursuant to this authorization.

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### *1.3.7. Eleventh resolution of the Shareholders Meeting held on May 17, 2013*

Authority to grant Company stock options to TOTAL employees and to executive directors up to a maximum of 0.75% of the share capital outstanding on the date of the meeting of the Board of Directors that approves the stock option grant. In addition, the options granted to the Company's executive directors cannot exceed 0.05% of the outstanding share capital on the date of the meeting of the Board of Directors that approves the grants (authorization valid for thirty-eight months).

Pursuant to this authorization, as of December 31, 2014, 17,889,506 stock options, including 1,192,633 to the Company's executive directors, could still be awarded as part of this authorization, since the Board of Directors did not make use of this delegation of authority.

### *1.3.8. Nineteenth resolution of the Shareholders Meeting held on May 11, 2012*

Authority to cancel shares up to a maximum of 10% of the share capital of the Company existing as of the date of the operation within a twenty-four-month period. This authorization is effective until the Shareholders Meeting held to approve the financial statements for the year ending December 31, 2016. The Board has not made use of this delegation of authority since the authorization of the 2012 Shareholders Meeting.

Based on 2,385,267,525 shares outstanding on December 31, 2014, the Company may, up until the conclusion of the Shareholders Meeting called to approve the financial statements for the fiscal year ending on December 31, 2016, cancel a maximum of 238,526,752 shares before reaching the cancellation threshold of 10% of share capital canceled over a 24-month period.

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**1.3.9. Table compiled in accordance with Article L. 225-100 of the French Commercial Code summarizing the use of delegations of authority and powers granted to the Board of Directors with respect to capital increases as of December 31, 2014**

Type	Par value limit, or maximum number of shares, or expressed as % of share capital (par value, number of shares or % of share capital)	Use in 2014, par value, or number of shares	Available balance as of 12/31/2014 par value, or number of shares	Date of delegation of authority or authorization by the Extraordinary Shareholders Meeting (ESM)	Expiry date and term of authorization granted to the Board of Directors	
	Debt securities representing rights to capital	€10 billion in securities	€10 billion	May 16, 2014 (10 <sup>th</sup> , 11 <sup>th</sup> and 13 <sup>th</sup> resolutions)	July 16, 2016, 26 months	
Maximum cap for the issuance of securities granting immediate or future rights to share capital	Nominal share capital	€2.5 billion, <i>i.e.</i> , a maximum of 1 billion shares issued with a pre-emptive subscription right, of which: <b>1/</b> a specific cap of €575 million, <i>i.e.</i> , a maximum of 230 million shares for issuances without pre-emptive subscription rights (with potential use of a greenshoe), including in compensation with securities contributed within the scope of a public exchange offer, provided that they meet the requirements of Article L. 225-148 of the French Commercial Code, of which: <b>1/a</b> a sub-cap of 10% of the share capital on the date of the Shareholders Meeting on May 16, 2014 <sup>(b)</sup> through in-kind contributions when provisions of Article L. 225-148 of the French Commercial Code are not applicable	18 million shares <sup>(a)</sup>	€2.46 billion ( <i>i.e.</i> , 982 million shares) €575 million	May 16, 2014 (10 <sup>th</sup> resolution) July 16, 2016, 26 months	
		<b>2/</b> a specific cap of 1.5% of the share capital on the date of the Board <sup>(c)</sup> decision for capital increases reserved for employees participating in a Company savings plan 0.75% of share capital <sup>(c)</sup> on the date of the Board decision to grant options	18 million shares <sup>(d)</sup>	17.8 million shares	May 16, 2014 (14 <sup>th</sup> resolution)	July 16, 2016, 26 months
		<b>0.8%</b> of share capital <sup>(b)</sup> on the date of the Board decision to grant the restricted shares	4.5 million shares <sup>(e)</sup>	14.6 million shares <sup>(e)</sup>	May 16, 2014 (16 <sup>th</sup> resolution)	July 16, 2017, 38 months
Stock option grants			17.9 million shares	May 17, 2013 (11 <sup>th</sup> resolution)	July 17, 2016, 38 months	
Restricted shares awarded to Group Employees and to executive directors				May 16, 2014 (16 <sup>th</sup> resolution)	July 16, 2017, 38 months	

<sup>(a)</sup> The number of new shares authorized under the 10<sup>th</sup> resolution of the ESM held on May 16, 2014 cannot exceed 1 billion shares. Pursuant to the 14<sup>th</sup> resolution of the ESM held on May 16, 2014, the Board of Directors decided on July 29, 2014 to proceed with a capital increase reserved for Group employees in 2015, within the limit of 18 million shares (see note (d) below). As a result, the available balance under this authorization was 982,000,000 new shares as of December 31, 2014.

<sup>(b)</sup> Share capital as of May 16, 2014: 2,378,583,237 shares.

<sup>(c)</sup> Share capital as of December 31, 2014: 2,385,267,525 shares.

<sup>(d)</sup> The number of new shares authorized under the 14<sup>th</sup> and 15<sup>th</sup> resolutions of the May 16, 2014 ESM may not exceed 1.5% of the share capital on the date when the Board of Directors decides to use the delegation. On July 29, 2014, the Board of Directors decided to proceed with a capital increase in 2015, within the limit of 18 million shares. As a result, the available balance under these authorizations was 17,779,012 new shares as of December 31, 2014.

<sup>(e)</sup> The number of shares that may be awarded as restricted share grants under the 16<sup>th</sup> resolution of the May 16, 2014 ESM may not exceed 0.8% of the share capital on the date when the restricted shares are awarded by the Board of Directors. As the Board of Directors awarded 4,486,300 outstanding shares on July 29, 2014, the number of shares that could still be awarded as of December 31, 2014 was 14,595,840 shares. In addition, the shares awarded under presence and performance conditions to the Company's executive officers under the 16<sup>th</sup> resolution of the ESM held on May 16, 2014, cannot exceed 0.01% of



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*the outstanding share capital on the date of the decision of the Board of Directors to proceed with the grant. Given the 48,000 outstanding shares awarded under presence and performance conditions to the Chairman and Chief Executive Officer by the Board of Directors on July 29, 2014, the number of outstanding shares that may still be awarded to the Company's executive directors is 190,526.*

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**1.4. Potential share capital as of December 31, 2014**

Securities granting rights to TOTAL shares through exercise are TOTAL share subscription options amounting to 16,635,411 share subscription options as of December 31, 2014, divided into:

- 5,847,965 options for the plan awarded by the Board of Directors on July 17, 2007;
- 3,215,884 options for the plan awarded on October 9, 2008 by decision of the Board of Directors on September 9, 2008;
- 3,011,269 options for the plan awarded by the Board of Directors on September 15, 2009;
- 3,701,218 options for the plan awarded by the Board of Directors on September 14, 2010; and
- 859,075 options for the plan awarded by the Board of Directors on September 14, 2011.

The potential share capital (*i.e.*, the existing share capital plus rights and securities that could result in the issuance of new TOTAL shares through exercise, *i.e.*, 2,401,902,936 shares, represents 100.70% of the share capital as of December 31, 2014, on the basis of 2,385,267,525 TOTAL shares

constituting the share capital as of December 31, 2014, and 16,635,411 TOTAL shares that could be issued upon the exercise of TOTAL options.

**1.5. TOTAL shares held by the Company or its subsidiaries****As of December 31, 2014**

<b>Percentage of share capital held by TOTAL S.A.</b>	<b>0.38%</b>
Number of shares held in portfolio	9,030,145
Book value of portfolio (at purchase price) (M€)	401
Market value of portfolio (M€ <sup>(a)</sup> )	384
<b>Percentage of capital held by companies<sup>(b)</sup> of the Group</b>	<b>4.58%</b>
Number of shares held in portfolio	109,361,413
Book value of portfolio (at purchase price) (M€)	3,427
Market value of portfolio (M€ <sup>(a)</sup> )	4,650

<sup>(a)</sup> Based on a market price of €42.52 per share as of December 31, 2014.

<sup>(b)</sup> TOTAL S.A., Total Nucléaire, Financière Valorgest, Sogapar and Fingestval.

**1.6. Share capital history since January 1, 2012****1.6.1. For fiscal year 2012**

July 2, 2012	Acknowledgement of the issuance of 1,366,950 new shares, par value €2.50 per share, as part of the global free TOTAL share plan to Group employees decided by the Board of Directors on May 21, 2010, raising the share capital by €3,417,375 from €5,909,418,282.50 to €5,912,835,657.50.
January 8, 2013	Acknowledgement of the issuance of 798,883 new shares, par value €2.50 per share, through the exercise of stock options between January 1 and December 31, 2012, raising the share capital by €1,997,207.50 from €5,912,835,657.50 to €5,914,832,865.

**1.6.2. For fiscal year 2013**

April 25, 2013	Acknowledgement of the issuance of 10,802,215 new shares, par value €2.50 per share, as part of the capital increase reserved for Group employees approved by the Board of Directors on September 18, 2012, raising the share capital by €27,005,537.50 from €5,914,832,865 to €5,941,838,402.50.
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January 8, 2014

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Acknowledgement of the issuance of 942,799 new shares, par value €2.50 per share, through the exercise of stock options between January 1 and December 31, 2013, raising the share capital by €2,356,997.50 from €5,941,838,402.50 to €5,944,195,400.

### **1.6.3. For fiscal year 2014**

July 1, 2014

Acknowledgement of the issuance of 666,575 new shares, par value €2.50 per share, as part of the global free TOTAL share plan to Group employees decided by the Board of Directors on May 21, 2010, raising the share capital by €1,666,437.50 from €5,944,195,400 to €5,945,861,837.50.

January 12, 2015

Acknowledgement of the issuance of 6,922,790 new shares, par value €2.50 per share, through the exercise of stock options between January 1 and December 31, 2014, raising the share capital by €17,306,975 from €5,945,861,837.50 to €5,963,168,812.50.

### **1.7. Share buybacks**

The Shareholders Meeting of May 16, 2014, after acknowledging the report of the Board of Directors, authorized the Board of Directors, in accordance with the provisions of Article L. 225-209 of the French Commercial Code and of EC Regulation 2273/2003 of December 22, 2003, to buy and sell the Company's shares as part of a share buyback program. The maximum purchase price was set at €70 per share. The number of shares acquired may not exceed 10% of the share capital. This authorization was granted for a period of eighteen months and replaced the previous authorization granted by the Shareholders Meeting of May 17, 2013.

A resolution will be submitted to the Shareholders Meeting on May 29, 2015 to authorize trading in TOTAL shares under a share buyback program carried out in accordance with Article L. 225-209 of the French Commercial Code and European Regulation 2273/2003 of December 22, 2003. The specificities of this program are described in 1.7.3. 2015-2016 share buyback program, below.

#### **1.7.1. Share buybacks and cancellations in 2014**

In 2014, TOTAL S.A. bought back 4,386,300 of its own shares to cover commitments made in connection with performance share grant plans, *i.e.*, approximately 0.18% of the share capital<sup>(1)</sup>.

<sup>(1)</sup> Average share capital of year N = (share capital at December 31 N-1 + share capital at December 31 N)/2.

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**1.7.2. Board's report on share buybacks and sales****1.7.2.1. Share buyback during 2014**

Under the authorization granted by the Shareholders' Meeting of May 16, 2014, 4,386,300 TOTAL shares, each with a par value of €2.50, were bought back by TOTAL S.A. in 2014, *i.e.*, 0.18%<sup>(1)</sup> of the share capital as of December 31, 2014. These buybacks were completed at an average price of €48.52 per share, for a total cost of approximately €213 million, excluding transaction fees. These buybacks are intended to cover the performance share grant plan approved by the Board of Directors on July 29, 2014.

**1.7.2.2. Shares held in the name of the Company and its subsidiaries as of December 31, 2014**

As of December 31, 2014, the Company held 9,030,145 treasury shares, representing 0.38% of TOTAL's share capital. Pursuant to French law, the voting rights and dividend rights of these shares are suspended.

After taking into account the shares held by Group subsidiaries, which are entitled to a dividend but deprived of voting rights, the total number of TOTAL shares held by the Group as of December 31, 2014 was 109,361,413, representing 4.58% of TOTAL's share capital, comprised of, on the one hand, 9,030,145 treasury shares, including 8,946,930 shares held to cover the performance share grant plans and 83,215 shares to be awarded under new share purchase option plans or new restricted share grant plans and, on the other hand, 100,331,268 shares held by subsidiaries.

For shares bought back to be allocated to Company or Group employees pursuant to the objectives referred to in Article 3 of EC Regulation 2273/2003 of December 22, 2003, note that, when such shares are held to cover share purchase option plans that have expired or performance share grants that have not been awarded at the end of the vesting period, they will be allocated to new TOTAL share purchase option plans or restricted share grant plans that may be approved by the Board of Directors.

**1.7.2.3. Transfer of shares during fiscal year 2014**

4,239,335 TOTAL shares were transferred in 2014 following the final award of TOTAL shares under the restricted share grant plans.

**1.7.2.4. Cancellation of Company shares during fiscal years 2012, 2013 and 2014**

TOTAL S.A. did not cancel any shares in 2012, 2013 and 2014.

The Shareholders' Meeting of May 11, 2012 authorized the Board of Directors to reduce the share capital on one or more occasions by canceling shares held by the Company up to a maximum of 10% of the share capital over a 24-month period. As a result, based on 2,385,267,525 shares outstanding on December 31, 2014, the Company may cancel a maximum of 238,526,752 shares before reaching the cancellation threshold of 10% of share capital canceled over a 24-month period.

**1.7.2.5. Reallocation for other approved purposes during fiscal year 2014**

Shares purchased by the Company under the authorization granted by the Shareholders' Meeting of May 16, 2014, or under previous authorizations, were not reallocated in 2014 to purposes other than those initially specified at the time of purchase.

**1.7.2.6. Conditions for the buyback and use of derivative products**

Between January 1, 2014 and February 28, 2015, the Company did not use any derivative products on the financial markets as part of the share buyback programs successively authorized by the Shareholders' Meetings of May 17, 2013 and May 16, 2014.

**1.7.2.7. Shares held in the name of the Company and its subsidiaries as of February 28, 2015**

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As of February 28, 2015, the Company held 8,927,585 shares, representing 0.37% of TOTAL's share capital. Pursuant to French law, the voting rights and dividend rights of these shares are suspended.

After taking into account the shares held by Group subsidiaries, which are entitled to a dividend but deprived of voting rights, the total number of TOTAL shares held by the Group as of February 28, 2015 was 109,258,853, representing 4.58% of TOTAL's share capital, comprised of, on the one hand, 8,927,585 treasury shares, including 8,844,370 shares held to cover the performance share grant plans and 83,215 shares to be awarded under new share purchase option plans or new restricted share grant plans and, on the other hand, 100,331,268 shares held by subsidiaries.

*Summary table of transactions completed by the Company involving its own shares from March 1, 2014 to February 28, 2015<sup>(a)</sup>:*

	Cumulative gross movements		Open positions as of February 28, 2015			
	Purchases	Sales	Bought calls	Open purchase positions	Open sales positions	Sales
Number of shares	4,386,300					
Maximum average maturity						
Average transaction price (€)	48.52					
Average exercise price						
Amounts (€)	212,810,310					

<sup>(a)</sup> In compliance with the applicable regulations as of February 28, 2015, the period indicated begins on the day after the date used as a reference for previously published information.

<sup>(1)</sup> Average share capital of year N = (share capital at December 31 N-1 + share capital at December 31 N)/2.

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Moreover, following the final award of shares under the performance share grant plans, 4,341,720 TOTAL shares were transferred between March 1, 2014 and February 28, 2015.

**As of February 28, 2015**

<b>Percentage of share capital held by TOTAL S.A.</b>	<b>0.37%</b>
Number of shares held in portfolio <sup>(a)</sup>	8,927,585
Book value of portfolio (at purchase price) (M€)	396
Market value of the portfolio (M€) <sup>(b)</sup>	431
<b>Percentage of capital held by companies<sup>(c)</sup> of the Group</b>	<b>4.58%</b>
Number of shares held in portfolio	109,258,853
Book value of portfolio (at purchase price) (M€)	3,427
Market value of the portfolio (M€) <sup>(b)</sup>	5,270

<sup>(a)</sup> TOTAL S.A. did not buy back any shares during the two trading days preceding February 28, 2015. As a result, TOTAL S.A. owns all the shares held in portfolio as of that date.

<sup>(b)</sup> Based on a closing price of €48.235 per share as of February 28, 2015.

<sup>(c)</sup> TOTAL S.A., Total Nucléaire, Financière Valorgest, Sogapar and Fingestval.

**1.7.3. 2015-2016 share buyback program****1.7.3.1. Description of the share buyback program under Article 241-1 et seq. of the General Regulation of the French Financial Markets Authority (Autorité des marchés financiers - AMF)**

Objectives of the share buyback program:

- reduce the Company's capital through the cancellation of shares;
- honor the Company's obligations related to securities convertible or exchangeable into Company shares;
- honor the Company's obligations related to stock option programs or other share grants to the Company's executive directors or to employees of the Company or a Group subsidiary;
- deliver shares (by exchange, payment or otherwise) in connection with external growth operations; and
- stimulate the secondary market or the liquidity of the TOTAL share under a liquidity agreement.

**1.7.3.2. Legal framework**

Implementation of this share buyback program, which is covered by Article L. 225-209 et seq. of the French Commercial Code, Article 241-1 et seq. of the General Regulation of the French Financial Markets Authority, and the provisions of EC Regulation 2273/2003 of December 22, 2003, is subject to approval by the TOTAL S.A. Shareholders Meeting of May 29, 2015 through the 5th resolution that reads as follows:

Upon presentation of the report by the Board of Directors and information appearing in the description of the program prepared pursuant to Articles 241-1 and thereafter of the General Regulation (*Règlement général*) of the French Financial Markets Authority (*Autorité des marchés financiers, or AMF*), and voting under the conditions of quorum and majority required for Ordinary General Meetings, the shareholders hereby authorize the Board of Directors, with the possibility to sub-delegate such authority under the terms provided for by French law, pursuant to the provisions of Article L. 225-209 of the French Commercial Code, of Council Regulation n°2273/2003 dated December 22, 2003 and of the General Regulation of the AMF, to buy or sell shares of the Company within the framework of a share buyback program.

The purchase, sale or transfer of such shares may be transacted by any means on regulated markets, multilateral trading facilities or over the counter, including the purchase or sale by block-trades, in accordance with the regulations of the relevant market authorities. Such transactions may include the use of any financial derivative instrument traded on regulated markets, multilateral trading facilities or over the counter, and implementing option strategies.

These transactions may be carried out at any time, in accordance with the applicable rules and regulations, except during any public offering periods applying to the Company's share capital.

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The maximum purchase price is set at €70 per share.

In the case of a capital increase by incorporation of reserves or share grants for no consideration and in the case of a stock-split or a reverse-stock-split, this maximum price shall be adjusted by applying the ratio of the number of shares outstanding before the transaction to the number of shares outstanding after the transaction.

Pursuant to the provisions of Article L. 225-209 of the French Commercial Code, the maximum number of shares that may be bought back under this authorization may not exceed 10% of the total number of shares outstanding as of the date on which this authorization is used. This limit of 10% is applicable to a capital of the Company which may be adjusted from time to time as a result of transactions after the date of the present Meeting. Purchases made by the Company may under no circumstances result in the Company holding more than 10% of the share capital, either directly or indirectly through indirect subsidiaries.

As of December 31, 2014, out of the 2,385,267,525 shares outstanding at this date, the Company held 9,030,145 shares directly and 100,331,268 shares indirectly through its subsidiaries, for a total of 109,361,413 shares. Under these circumstances, the maximum number of shares that the Company could buy back is 129,165,339 shares and the maximum amount that the Company may spend to acquire such shares is €9,041,573,730.

The purpose of this share buyback program is to reduce the number of shares outstanding or to allow the Company to fulfill its engagements in connection with:

convertible or exchangeable securities that may give holders rights to receive shares of the Company upon conversion or exchange; or share purchase option plans, employee shareholding plans, Company savings plans or other share allocation programs for management or employees of the Company or Group companies.

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The purpose of the buybacks may also be one of the market practices accepted by the AMF, *i.e.*:

delivery of shares (by exchange, payment or otherwise) in cases of external growth transactions, mergers, spin-offs or contributions, not exceeding the limit set forth in Article L. 225-209, 6<sup>th</sup> paragraph of the French Commercial Code in cases of mergers, spin-offs or contributions; or support the secondary market or the liquidity of TOTAL shares by an investment services provider by means of a liquidity agreement compliant with the Code of ethics recognized by the AMF.

This program may also be used by the Company to trade in its own shares, either on or off the market, for any other purpose that is authorized or any permitted market practice, or any other purpose that may be authorized or any other market practice that may be permitted under the applicable law or regulation. In case of transactions other than the above-mentioned intended purposes, the Company will inform its shareholders in a press release.

According to the intended purposes, the treasury shares that are acquired by the Company through this program may, in particular, be:

cancelled, up to the maximum legal limit of 10% of the total number of shares outstanding on the date of the operation, per each 24-month period; granted for no consideration to the employees of the Group and to the management of the Company or of other companies of the Group; delivered to the holders of Company's shares purchase options having exercised such options; sold to employees, either directly or through the intermediary of Company savings funds; delivered to the holders of securities that grant such rights to receive such shares, either through redemption, conversion, exchange, presentation of a warrant or in any other manner; or used in any other way consistent with the purposes stated in this resolution.

While they are bought back and held by the Company, such shares will be deprived of voting rights and dividend rights.

This authorization is granted for a period of eighteen months from the date of this Meeting. It renders ineffective up to the unused portion, the previous authorization granted by the Combined Shareholders' Meeting held on May 16, 2014.

The Board of Directors is hereby granted full authority, with the right to delegate such authority, to undertake all actions authorized by this resolution.

**1.7.3.3. Conditions**

**Maximum share capital to be purchased and maximum funds allocated to the transaction:** The maximum number of shares that may be purchased under the authorization proposed to the Shareholders' Meeting of May 29, 2015 may not exceed 10% of the total number of shares outstanding, with this limit applying to an amount of the Company's share capital that will be adjusted, if necessary, to include transactions affecting the share capital subsequent to this Meeting. Purchases made by the Company may under no circumstances result in the Company holding more than 10% of the share capital, either directly or indirectly through subsidiaries.

Before any share cancellation under the authorization given by the Shareholders' Meeting of May 16, 2014, based on the number of shares outstanding as of December 31, 2014 (2,385,267,525 shares), and given the 109,258,853 shares held by the Group as of February 27, 2015, *i.e.*, 4.58% of the share capital, the maximum number of shares that may be purchased would be 129,267,899, representing a theoretical maximum investment of €9,048,752,930 based on the maximum purchase price of €70.

**Conditions for buybacks:** Such shares may be bought back by any means on regulated markets, multilateral trading facilities or over the counter, including through the purchase or sale of blocks of shares, under the conditions authorized by the relevant market authorities. These means include the use of any financial derivative instrument traded on a regulated market or over the counter and the implementation of option strategies, with the Company taking measures, however, to avoid increasing the volatility of its stock. The portion of the program carried out through the purchase of blocks of shares will not be subject to quota allocation, up to the limit set by this resolution. These shares may be bought back at any time in accordance with current regulations, except during public offerings for the Company's shares.

**Duration and schedule of the share buyback program:** In accordance with the 5th resolution, which will be subject to approval by the Shareholders' Meeting of May 29, 2015, the share buyback program may be implemented over an 18-month period following the date of this Meeting, and therefore expires on November 29, 2016.



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**Transactions carried out under the previous program:** Transactions carried out under the previous program are listed in the special report of the Board of Directors on share buybacks (refer to 1.7.2. Board's report on share buybacks and sales, above).

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### Item 10 - 2. Memorandum and Articles of Association

## **2. Memorandum and Articles of Association**

### **2.1. General information concerning the Company**

Name: TOTAL S.A.

Headquarters: 2, place Jean Millier, La Défense 6, 92400 Courbevoie, France.

Legal form and nationality: A French *société anonyme* (limited liability company).

Trade Registry: 542 051 180 RCS Nanterre.

EC Registration Number: FR 59 542 051 180.

Bylaws: On file with K.L. Associés, Notaries in Paris.

APE Code (NAF): 111Z until January 7, 2008; 7010Z since January 8, 2008.

Term: 99 years from March 22, 2000, to expire on March 22, 2099, unless dissolved prior to this date or extended.

Fiscal year: From January 1 to December 31 of each year.

### **2.2. Summary of the Company's purpose**

The direct and indirect purpose of the Company is to search for and extract mining deposits in all countries, particularly hydrocarbons in all forms, and to perform industrial refining, processing and trading in said materials as well as their derivatives and by-products, as well as all activities relating to production and distribution of all forms of energy, as well as the chemicals sector in all of its forms and to the rubber and health sectors. The complete details of the Company's corporate purpose are set forth in Article 3 of the bylaws.

### **2.3. Provisions of the bylaws governing the administration and management bodies**

#### ***2.3.1. Election of Directors and term of office***

Directors are elected by the Shareholders' Meeting for a 3-year term up to a maximum number of directors authorized by law (currently eighteen), subject to the legal provisions that allow the term to be extended until the next Shareholders' Meeting called to approve the financial statements for the previous fiscal year.

In addition, one director representing the employee shareholders is also elected by the Shareholders' Meeting for a 3-year term from a list of at least two candidates pre-selected by the employee shareholders under the conditions provided for by the laws, regulations and bylaws in force. However, his or her term shall expire automatically once this Director is no longer an employee or a shareholder. The Board of Directors may meet and conduct valid deliberations until the date his or her replacement is named.

Furthermore, a director representing the employees is designated by the Company's Central Works Council. Where the number of directors appointed by the Shareholders' Meeting is greater than twelve<sup>1</sup>, a second director representing the employees is designated by the Company's Central Works Council (European Works Council). In accordance with applicable legal provisions, the director elected by the European Works Council must have held an employment contract with the Company or one of its direct or indirect subsidiaries, whose registered office is based in mainland France, for at least two years prior to appointment. By derogation, the second director elected by the European Works Council must have held an employment contract with the Company or one of its direct or indirect subsidiaries for at least two years prior to appointment. The term of office for a director representing the employees is three years. However, the term of office ends following the Shareholders' Meeting called to approve

the financial statements for the last fiscal year and held in the year during which the said director's term of office expires.

#### ***2.3.2. Age limit of Directors***

On the closing date of each fiscal year, the number of individual directors over the age of 70 may not be greater than one-third of the directors in office.

If this percentage is exceeded, the oldest Board member is automatically considered to have resigned.

The director permanent representative of a legal entity must be under 70 years old.

**2.3.3. *Age limit of the Chairman of the Board and the Chief Executive Officer***

The duties of the Chairman of the Board automatically cease on his or her 70<sup>th</sup> birthday at the latest.

To hold this office, the Chief Executive Officer must be under the age of 67. When the age limit is reached during his or her duties, such duties automatically cease, and the Board of Directors elects a new Chief Executive Officer. However, his or her duties as Chief Executive Officer will continue until the date of the Board of Directors' meeting aimed at electing his or her successor. Subject to the age limit specified above, the Chief Executive Officer can always be re-elected.

**2.3.4. *Minimum interest in the Company held by Directors***

Each director (other than the director representing the employee shareholders or the director representing the employees) must own at least 1,000 shares of stock during his or her term of office. If, however, any director ceases to own the required number of shares, they may, however, adjust their position subject to the conditions set by law. The director representing employee shareholders must hold, during his or her term of office, either individually or through a Company Savings Plan (Fonds Commun de Placement d'Entreprise - FCPE) governed by Article L. 214-40 of the French Monetary and Finance Code, at least one share or a number of units in said fund equivalent to at least one share. The director representing the employees is not bound to be a shareholder.

**2.3.5. *Majority rule for Board meetings***

Decisions are adopted by a majority vote of the directors present or represented. In the event of a tie vote, the Chairman shall cast the deciding vote.

**2.3.6. *Rules of procedure of the Board and Committees of the Board of Directors***

Refer to Item 6 - C. Board Practices and Corporate Governance .

**2.3.7. *Form of Management***

Management of the Company is assumed either by the Chairman of the Board (who then holds the title of the Chairman and Chief Executive Officer), or by another person appointed by the Board of Directors with the title of Chief Executive Officer. It is the responsibility of the Board of Directors to choose between these two forms of management under the majority rules described above.

<sup>(1)</sup> Neither the director representing employee shareholders, elected by the Shareholders' Meeting, nor the director(s) representing employees are taken into consideration when defining the 12-member threshold, which is assessed on the date on which the employee director(s) are elected.

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Following the death of the Chairman and Chief Executive Officer, and based on the proposal of the Governance and Ethics Committee, the Board of Directors decided during its meeting on October 22, 2014, to separate the positions of Chairman and Chief Executive Officer in order to better ensure the continuity of the General Management transition process. This management form will remain in effect until a decision to the contrary is made by the Board of Directors.

At its meeting on October 22, 2014, the Board of Directors appointed Mr. Pouyanné as Chief Executive Officer for a term expiring at the end of the Shareholders Meeting called in 2017 to approve the financial statements for the fiscal year 2016. The Board furthermore appointed Mr. Desmarest Chairman of the Board of Directors for a period due to expire on December 18, 2015, in light of the age limits set out in the bylaws. As of such date, the functions of Chairman and Chief Executive Officer of TOTAL will be combined.

**2.4. Rights, privileges and restrictions attached to the shares**

The following is a summary of the material rights of holders of fully paid-up shares and is based on the bylaws of the Company and French Company Law as codified in Volume II (*Livre II*) of the French Commercial Code (referred to herein as the French Company Law ). For more complete information, please read the bylaws of TOTAL S.A., a copy of which has been filed as an exhibit to this Annual Report.

In addition to the right to vote, each share entitles the holder to a portion of the corporate assets, distributions of profits and liquidation dividend which is proportional to the number of shares issued, subject to the laws and regulations in force and the bylaws.

With the exception of double voting rights, no privilege is attached to a specific class of shares or to a specific class of shareholders.

**2.4.1. Voting rights**

Each shareholder of the Company is entitled to the number of votes corresponding to the number of shares he or she possesses, or for which he or she holds proxies. According to French Company Law, voting rights may not be exercised in respect of fractional shares.

According to the Company's bylaws, each registered share that is fully paid-up and registered in the name of the same shareholder for a continuous period of at least two years is granted a double voting right after such 2-year period. In the event of a capital increase by incorporation of reserves, profits or premiums on shares, a double voting right is granted to each registered share allocated for free to a shareholder in connection with previously existing shares that already carry double voting rights. Any merger of the Company would have no effect on the double voting right, which may be exercised within the absorbing company, if the latter's articles of association have created a similar right. The double voting right is automatically canceled when the share is converted into a bearer share or when the share is transferred, unless such transfer from registered share to registered share is due to inheritance *ab intestat* or testamentary inheritance, division of community property between spouses, or a donation *inter vivos*

during the lifetime of the shareholder to the benefit of a spouse or relatives eligible to inherit.

French Company Law limits a shareholder's right to vote notably in the following circumstances:

shares held by the Company or by entities controlled by the Company under certain conditions, which cannot be voted;

shares held by shareholders making a contribution in-kind to the Company, which cannot be voted with respect to resolutions relating to such in-kind contributions; and

shares held by interested parties, which cannot be voted with respect to resolutions relating to such shareholders.

Double voting rights, in relation to the portion of share capital they represent, are granted to all fully paid-up registered shares held continuously in the name of the same shareholder for at least two years<sup>(1)</sup>, and to additional registered shares allotted to a shareholder in connection with a capital increase by capitalization of reserves, profits or premiums on the basis of the existing shares which entitle the shareholder to a double voting right.

**2.4.2. Limitation of voting rights**

Article 18 of the Company's bylaws provides that at Shareholders' Meetings, no shareholder may cast, by himself or through his agent, on the basis of the single voting rights attached to the shares he holds directly or indirectly and the shares for which he holds powers, more than 10% of the total number of voting rights attached to the Company's shares. In the case of double voting rights, by himself or through his agent, this limit may be exceeded, taking only the resulting additional voting rights into account, provided that the total voting rights that he exercises do not exceed 20% of the total voting rights associated with the shares in the Company.

Moreover, Article 18 of the bylaws also provides that the limitation on voting rights no longer applies, absent any decision of the Shareholders' Meeting, if an individual or a legal entity acting solely or together with one or more individuals or entities acquires at least two-thirds of the Company's shares following a public tender offer for all the Company's shares. In that case, the Board of Directors acknowledges that the limitation no longer applies and carries out the necessary procedure to modify the Company's bylaws accordingly.

Once acknowledged, the fact that the limitation no longer applies is final and applies to all Shareholders' Meetings following the public tender offer under which the acquisition of at least two-third of the overall number of shares of the Company was made possible, and not solely to the first meeting following that public tender offer.

Because of the fact that in such circumstances the limitation no longer applies, such limitation on voting rights cannot prevent or delay any takeover of the Company, except in case of a public tender offer where the bidder does not acquire at least two-thirds of the Company's shares.

**2.4.3. Fractional rights**

Whenever it is necessary to own several shares in order to exercise a right, a number of shares less than the number required does not give the owners any right with respect to the Company; in such case, the shareholders are responsible for aggregating the required number of shares.

*(1) This term is not interrupted and the right acquired is retained in case of a conversion of bearer to bearer pursuant to intestate or testamentary succession, share of community property between spouses or donation to the spouse or relatives entitled to inherit (Article 18 § 6 of bylaws).*

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#### **2.4.4. Statutory allocation of profits**

The net profit for the period is equal to the net income minus general expenses and other personnel expenses, all amortization and depreciation of the assets, and all provisions for commercial and industrial contingencies.

From this profit, minus prior losses, if any, the following items are deducted in the order indicated:

1. 5% to constitute the legal reserve fund, until said fund reaches 10% of the share capital;
2. the amounts set by the Shareholders Meeting to fund reserves for which it determines the allocation or use; and
3. the amounts that the Shareholders Meeting decides to retain.

The remainder is paid to the shareholders as dividends.

The Board of Directors may pay interim dividends.

The Shareholders Meeting held to approve the financial statements for the fiscal year may decide to grant shareholders an option, for all or part of the dividend or interim dividends, between payment of the dividend in cash or in shares.

The Shareholders Meeting may decide at any time, but only based on a proposal by the Board of Directors, to make a full or partial distribution of the amounts in the reserve accounts, either in cash or in Company shares.

Dividends which have not been claimed at the end of a 5-year period are forfeited to the French government.

#### **2.4.5. Dividend rights**

The Company may make dividend distributions to its shareholders from net income in each fiscal year, after deduction of the overhead and other social charges, as well as of any amortization of the business assets and of any provisions for commercial and industrial contingencies, as reduced by any loss carried forward from prior years, and less any contributions to reserves or amounts that the shareholders decide to carry forward. These distributions are also subject to the requirements of French Company Law and the Company's bylaws.

Under French Company Law, the Company must allocate 5% of its net profit in each fiscal year to a legal reserve fund until the amount in that fund is equal to 10% of the nominal amount of its share capital.

The Company's bylaws provide that its shareholders may decide to either allocate all or a part of any distributable profits among special or general reserves, carry them forward to the next fiscal year as retained earnings, or allocate them to the shareholders as dividends. The bylaws provide that the shareholders meeting held to approve the financial statements for the financial year may decide to grant an option to each shareholder between payment of the dividend in cash and payment in shares with respect to all or part of the dividend or interim dividends.

Under French Company Law, and except as otherwise provided by a provision of the bylaws, the Company must distribute dividends to its shareholders *pro rata* according to their shareholdings. Dividends are payable to holders of outstanding shares on the date fixed at the shareholders meeting approving the distribution of dividends or, in the case of interim dividends, on the date fixed by the Company's Board of Directors at the meeting that approves the distribution of interim dividends. Under French law, dividends not claimed within five years of the date of payment revert to the French State.

#### **2.4.6. Liquidation rights**

In the event the Company is liquidated, any assets remaining after payment of its debts, liquidation expenses and all of its other remaining obligations will first be distributed to repay the nominal value of the shares. After these payments have been made, any surplus will be distributed *pro rata* among the holders of shares based on the nominal value of their shareholdings.

#### **2.4.7. Redemption provisions**

The Company's shares are not subject to any redemption provisions.

**2.4.8. Sinking fund provisions**

The Company's shares are not subject to any sinking fund provisions.

**2.4.9. Future capital calls**

Shareholders are not liable to the Company for future capital calls on their shares.

**2.4.10. Preferential subscription rights**

As provided by French Company Law, if the Company issues additional shares, or any equity securities or other specific kinds of additional securities carrying a right, directly or indirectly, to purchase equity securities issued by the Company for cash or cash equivalents, current shareholders will have preferential subscription rights to these securities on a *pro rata* basis. A two-thirds majority of the present and represented shares at an extraordinary shareholders' meeting may vote to waive the shareholders' preferential subscription rights with respect to any particular offering. French law requires a company's board of directors and independent auditors to present reports that specifically address any proposal to waive preferential subscription rights. The shareholders may also authorize at an extraordinary shareholders' meeting the allocation to the existing shareholders of a nontransferable priority right to subscribe for the new securities during a limited period of time. Shareholders may also waive their own preferential subscription rights with respect to any particular offering.

During the subscription period relating to a particular offering of shares, shareholders may transfer their preferential subscription rights that they have not previously waived.

**2.4.11. Form of shares**

The Company has only one class of shares, with a par value of €2.50 per share. Shares may be held in either bearer or registered form. Shares traded on NYSE Euronext Paris are cleared and settled through Euroclear France. In accordance with Article 9 of its bylaws, the Company is authorized, to the extent permitted by applicable law, to identify holders of securities that grant immediate or future voting rights at the Company's Shareholders' Meetings, under a procedure known as *titres au porteur identifiable* according to which Euroclear France will, upon the Company's request, disclose to the Company the name, nationality, address and number of shares held by each shareholder in bearer form. The information may only be requested by the Company and may not be communicated to third parties.

**2.4.12. Holding of shares**

Under French Company Law and since the dematerialization of securities, the ownership rights of shareholders are represented by book entries instead of share certificates (other than certificates representing French securities, which are outstanding exclusively outside the territory of France and are not held by French residents).

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TOTAL S.A. shares can be held in bearer form or registered form. In the latter case, shareholders are identified by TOTAL S.A., in its capacity as the issuer, or by its agent, BNP Paribas Securities Services, which is responsible for keeping the register of shareholders' registered shares.

There are two forms of registration:

**administered registered shares:** shares are registered with TOTAL through BNP Paribas Securities Services, but the holder's financial intermediary continues to administer them with regard to sales, purchases, coupons, etc.; and

**pure registered shares:** TOTAL holds and directly administers shares on behalf of the holder through BNP Paribas Securities Services, which administers sales, purchases, coupons, shareholders' meeting notices, etc., so that the shareholder does not need to appoint a financial intermediary.

#### **2.4.13. Requirements for temporary transfer of securities**

Refer to Item 7.1.3. Temporary transfer of securities, above.

#### **2.4.14. Cancellation of treasury shares**

After receiving shareholders' authorization convened at an extraordinary shareholders' meeting, the Board of Directors of the Company may cancel treasury shares owned by the Company in accordance with French Company Law up to a maximum of 10% of the share capital within any period of twenty-four months.

#### **2.4.15. Ownership of shares by non-French persons**

There is no limitation on the right of non-resident or foreign shareholders to own securities of the Company, either under French Company Law or under the bylaws of the Company.

Under the French Monetary and Financial Code, a non-resident of France is not required to obtain a prior authorization before acquiring a controlling interest in a French company with the exception of investments in certain sensitive economic areas, such as defense, oil and gas supply and public health. In addition, non-residents of France must file an administrative notice (*déclaration administrative*) with French authorities in connection with the acquisition of 33 1/3 % or more of the capital or voting rights of a French company, or a lower percentage if the acquiring party comes to hold a controlling interest (evaluated in light of certain factors such as the acquiring party's intentions, the acquiring party's ability to elect directors and financial reliance by the company on the acquiring party).

### **2.5. Amending shareholders' rights**

Any amendment to the bylaws must be approved or authorized by the Shareholders' Meeting voting with the quorum and majority required by the laws and regulations governing Extraordinary Shareholders' Meetings.

### **2.6. Shareholders' meetings**

French companies may hold either ordinary or extraordinary shareholders' meetings. Ordinary shareholders' meetings are required for matters that are not specifically reserved by law to extraordinary shareholders' meetings: the election of the members of the Board of Directors, the appointment of statutory auditors, the approval of a management report prepared by the Board of Directors, the approval of the consolidated and statutory annual financial statements, the declaration of dividends and the share purchase programs. Extraordinary shareholders' meetings are required for approval of amendments to a company's bylaws, modification of shareholders' rights, mergers, increases or decreases in share capital, including a waiver of preferential

subscription rights, the creation of a new class of shares, the authorization of the issuance of investment certificates or securities convertible, exchangeable or redeemable into shares and for the sale or transfer of substantially all of a company's assets.

The Company's Board of Directors is required to convene an annual shareholders' meeting for approval of the annual financial statements. This meeting must be held within six months of the end of the fiscal year. However, the *Président* of the *Tribunal de Commerce* of Nanterre, the local French commercial court, may grant an extension of this six-month period. The Company may convene other ordinary and extraordinary shareholders' meetings at any time during the year. Meetings of shareholders may be convened by the Board of Directors or, if it fails to call a meeting, by the Company's statutory auditors or by a court-appointed



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agent. A shareholder or group of shareholders holding at least 5% of the share capital, the employee committee or another interested party under certain exceptional circumstances, may request that the court appoint an agent. The notice of meeting must state the agenda for the meeting.

French Company Law requires that a preliminary notice of a listed company's shareholders' meeting be published in the *Bulletin des annonces légales obligatoires* (BALO) at least thirty-five days prior to the meeting (or fifteen days if the Company is subject to a tender offer and the Company calls a shareholders' meeting to approve measures, the implementation of which would be likely to cause such tender offer to fail). The preliminary notice must first be sent to the French Financial Markets Authority (*Autorité des marchés financiers*) (AMF) with an indication of the date it is to be published in the BALO.

The preliminary notice must include notably the agenda of the meeting and the proposed resolutions that will be submitted to a shareholders' vote.

One or more shareholders holding a certain percentage of the Company's share capital determined on the basis of a formula related to capitalization may propose to add on the shareholders' meeting's agenda new resolutions to be submitted to a shareholders' vote and/or matters without a shareholders' vote (*points*), provided that the text of the new resolutions or matters (i) be received by the Company no later than the twenty-fifth day preceding the meeting (or at least the tenth day in the event the Company is subject to a tender offer and the Company calls a shareholders' meeting to approve measures, the implementation of which would be likely to cause such tender offer to fail), and (ii) be sent no later than the twentieth day after the publication date of the preliminary notice of the shareholders' meeting. Eligible shareholders' request to add new matters to the meeting's agenda has to be duly motivated.

French Company Law also requires that the preliminary notice of a listed company's shareholders' meeting, as well as the additional resolutions and/or matters presented by the shareholders under the terms and conditions prescribed under French law, be published on the Company's website during a period starting at the latest on the twenty-first day prior to the meeting (or the fifteenth day in the event the Company is subject to a tender offer and the Company calls a shareholders' meeting to approve measures, the implementation of which would be likely to cause such tender offer to fail).

Notice of a shareholders' meeting is sent by postal or electronic mail at least fifteen days (or six days if the Company is subject to a tender offer to approve measures, the implementation of which would likely cause such tender offer to fail) before the meeting to all holders of registered shares who have held their shares for more than one month. However, in the case where the original

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meeting was adjourned because a quorum was not met, this time period is reduced to ten days (or four days if the Company is subject to a tender offer to approve measures, the implementation of which would be likely to cause such tender offer to fail).

Attendance and the exercise of voting rights at both ordinary and extraordinary shareholders' meetings are subject to certain conditions. Pursuant to French Company Law, participation in any form in Shareholders' Meetings is subject to registration of participating shares. Shares must either be held in the registered account maintained by the Company (or its securities agent) or recorded in bearer form in a securities account maintained by a financial intermediary. Proof of this registration is obtained under a certificate of participation ( *attestation de participation* ) delivered to the shareholder. Registration of the shares must be effective no later than midnight. (Paris time) on the second business day preceding the date of the Shareholders' Meeting. If, after having received such a certificate, shares are sold or transferred prior to this record date, the certificate of participation will be canceled and the votes sent by mail or proxies granted to the Company for such shares will be canceled accordingly. If shares are sold or transferred after this record date, the certificate of participation will remain valid and votes cast or proxies granted will be taken into account.

Subject to the above restrictions, all of the Company's shareholders have the right to participate in the Company's shareholders' meetings, either in person or by proxy. Each shareholder may delegate voting authority to another shareholder, the shareholder's spouse, or the companion with whom the shareholder has registered a civil partnership (PACS). Every shareholder may also delegate voting authority to any other individual or legal entity he or she may choose, provided, among other things, that a written proxy be provided to the Company. Shareholders may vote, either in person, by proxy, or by postal or electronic mail, and each is entitled to as many votes as he or she possesses or as many shares as he or she holds proxies for, subject to the voting rights limitations provided by the Company's bylaws. If the shareholder is a legal entity, it may be represented by a legal representative. A shareholder may grant a proxy to the Company by returning a blank proxy form. In this last case, the chairman of the shareholders' meeting may vote the shares in favor of all resolutions proposed or agreed to by the Board of Directors and against all others. The Company will send proxy forms to shareholders upon request. In order to be counted, proxies must be received at least three days prior to the shareholders' meeting at the Company's registered office or at another address indicated in the notice convening the meeting, or by 3:00 p.m. on the day prior to the shareholders' meeting for electronic proxy forms. Under French Company Law, shares held by the Company or by entities controlled directly or indirectly by the Company are not entitled to voting rights. There is no requirement that a shareholder have a minimum number of shares in order to be able to attend or be represented at shareholders' meetings.

Under French Company Law, a quorum requires the presence, in person or by proxy, including those voting by mail, of shareholders having at least 20% of the shares entitled to vote in the case of (i) an ordinary shareholders' meeting, (ii) an extraordinary shareholders' meeting where shareholders are voting on a capital increase by capitalization of reserves, profits or share premium, or (iii) an extraordinary shareholders' meeting if the Company is subject to a tender offer in order to approve an issuance of warrants allowing the subscription, at preferential conditions, of shares of the Company and the free allotment of such warrants to

existing shareholders of the Company, the implementation of which would be likely to cause such tender offer to fail, or 25% of the shares entitled to vote in the case of any other extraordinary shareholders' meeting. If a quorum is not present at any meeting, the meeting is adjourned. There is no quorum requirement when an ordinary shareholders' meeting is reconvened, but the reconvened meeting may consider only questions that were on the agenda for the adjourned meeting. When an extraordinary shareholders' meeting is reconvened, the quorum required is 20% of the shares entitled to vote, except where the reconvened meeting is considering capital increases through capitalization of reserves, profits or share premium or an issuance of warrants allowing the subscription, at preferential conditions, of shares of the Company and the free allotment of such warrants to existing shareholders of the Company, the implementation of which would be likely to cause such tender offer to fail. For these matters, no quorum is required at the reconvened meeting. If a quorum is not present at a reconvened meeting requiring a quorum, then the meeting may be adjourned for a maximum of two months.

At an ordinary shareholders' meeting, approval of any resolution requires the affirmative vote of a simple majority of the votes of the shareholders present or represented by proxy. The approval of any resolution at an extraordinary shareholders' meeting requires the affirmative vote of a two-thirds majority of the votes cast, except that (i) any resolution to approve a capital increase by capitalization of reserves profits, or share premium, or (ii) any resolution, if the Company is subject to a tender offer in order to approve an issuance of warrants allowing the subscription, at preferential conditions, of shares of the Company and the free allotment of such warrants to existing shareholders of the Company, the implementation of which would be likely to cause such tender offer to fail, only requires the affirmative vote of a simple majority of the votes cast. Notwithstanding these rules, a unanimous vote is required to increase shareholders' liabilities. Abstention from voting by those present or represented by proxy is counted as a vote against any resolution submitted to a vote.

As set forth in the Company's bylaws, shareholders' meetings are held at the Company's registered office or at any other location specified in the written notice.

#### **2.7. Thresholds to be declared according to the bylaws**

Any individual or entity who directly or indirectly acquires a percentage of the share capital, voting rights or rights giving future access to the share capital of the Company which is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Company within fifteen days by registered mail with return receipt requested, and declare the number of securities held.

In case the shares above these thresholds are not declared, as specified in the preceding paragraph, any shares held in excess of the threshold that should have been declared will be deprived of voting rights at Shareholders' Meetings if, at a meeting, the failure to make a declaration is acknowledged and if one or more shareholders holding collectively at least 3% of the Company's share capital or voting rights so request at that meeting.

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All individuals and entities are also required to notify the Company in due form and within the time limits stated above when their direct or indirect holdings fall below each of the thresholds mentioned in the first paragraph.

French Company Law provides that any individual or entity, acting alone or in concert with others, that holds, directly or indirectly, more than 5%, 10%, 15%, 20%, 25%, 30%, 1/3, 50%, 2/3, 90%

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## Item 10 - 5. Taxation

or 95% of the outstanding shares or of the voting rights<sup>(1)</sup> attached to the shares, or that increases or decreases its shareholding or voting rights by any of the above percentages must notify the Company by registered letter, with return receipt, within four trading days of exceeding any of the above-mentioned thresholds, of the number of shares and voting rights it holds. An individual or entity must also notify the AMF within four trading days of exceeding any of the above-mentioned thresholds. When a shareholder exceeds such ownership thresholds, AMF rules also require disclosure of certain information relating to other financial instruments that could increase the shareholding of the individual or entity. In addition, the person required to make the notification referred to above shall also, when the thresholds of one-tenth, three-twentieths, one-fifth or one-quarter of the capital or voting rights are exceeded, declare the objectives that it intends to pursue during the next six months and indicate the requested information listed in Article 223-17 of the AMF General Regulations. The declaration must be sent to the Company and delivered to the AMF, which makes it public, no later than the close of trading on the fourth trading day after the shareholding threshold has been crossed. Upon any change of intention within the six-month period following the filing of the declaration, a new declaration explaining the reasons for the change must be promptly sent to the Company and to the AMF, and made known to the public under the same conditions. Any shareholder who fails to comply with the above requirements (thresholds and intentions notifications) will have its voting rights in excess of such thresholds suspended for a period of two years from the date such shareholder complies with the notification requirements and may have all or part of its voting rights suspended for up to five years by the commercial court at the request of the Company's Chairman, any of the Company's shareholders or the AMF.

Subject to certain limited exemptions, any person, or persons acting in concert, coming to hold more than 30% of the share capital or voting rights of the Company must initiate a public tender offer for the balance of the share capital, voting rights and securities giving access to such share capital or voting rights.

**2.8. Changes in the share capital**

The Company's share capital may be changed only under the conditions stipulated by the legal and regulatory provisions in force. No provision of the bylaws, charter, or internal regulations provide for more stringent conditions than the law governing changes in the Company's share capital.

Under French Company Law, the Company may increase its share capital only with the approval of its shareholders at an extraordinary shareholders' meeting (or with a delegation of authority from its shareholders). There are two methods to increase share capital: (i) by issuing additional shares, including the creation of a new class of securities and (ii) by increasing the nominal value of existing shares. The Company may issue additional shares for cash or for assets contributed in kind, upon the conversion of debt securities, or other securities giving access to its share capital, that it may have issued, by capitalization of its reserves, profits or issuance premiums.

Under French Company Law, the Company may decrease its share capital only with the approval of its shareholders at an extraordinary shareholders' meeting (or with a delegation of authority from its shareholders). There are two methods to reduce share capital: (i) by reducing the number of shares outstanding, and (ii) by decreasing the nominal value of existing shares. The conditions under which the share capital may be reduced will vary depending upon whether the reduction is attributable to losses. The Company may reduce the number of outstanding shares either by an exchange of shares or by the repurchase and cancellation of its shares. If the reduction is attributable to losses, shares are canceled through offsetting the Company's losses. Any decrease must meet the requirements of French Company Law, which states, among other things, that all the holders of shares in each class of shares must be treated equally, unless the affected shareholders otherwise agree.

**3. Material Contracts**

There have been no material contracts (not entered into in the ordinary course of business) entered into by members of the Group since March 26, 2013.

**4. Exchange Controls**

Under current French exchange control regulations, no limits exist on the amount of payments that TOTAL may remit to residents of the United States. Laws and regulations concerning foreign exchange controls do require, however, that an accredited intermediary must handle all payments or transfer of funds made by a French resident to a non-resident.

**5. Taxation**

**5.1. General**

This section generally summarizes the material U.S. federal income tax and French tax consequences of owning and disposing of shares and ADSs of TOTAL to U.S. Holders that hold their shares or ADSs as capital assets for tax purposes. A U.S. Holder is a beneficial owner of shares or ADSs that is (i) a citizen or resident of the United States for U.S. federal income tax purposes, (ii) a domestic corporation or other domestic entity treated as a corporation for U.S. federal income tax purposes, (iii) an estate whose income is subject to U.S. federal income tax regardless of its source, or (iv) a trust if a U.S. court can exercise primary

supervision over the trust's administration and one or more U.S. persons are authorized to control all substantial decisions of the trust.

This section does not apply to members of special classes of holders subject to special rules, including:

- dealers in securities;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- tax-exempt organizations;
- life insurance companies;

*<sup>(1)</sup> For the purpose of shareholding threshold declarations, pursuant to Article 223-11 of the General Regulation of AMF, voting rights are calculated on the basis of all outstanding shares, whether or not these shares would have rights at a shareholders' meeting.*

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### **Item 10 - 5. Taxation**

U.S. pension funds;  
 U.S. Regulated Investment Companies (RIC), Real Estate Investment Trusts (REIT), and Real Estate Mortgage Investment Conduits (REMIC);  
 persons liable for alternative minimum tax;  
 persons that actually or constructively own 10% or more of the share capital or voting rights in TOTAL;  
 persons that purchase or sell shares or ADSs as part of a wash sale for U.S. federal income tax purposes;  
 persons that hold the shares or ADSs as part of a straddle or a hedging or conversion transaction; or  
 persons whose functional currency is not the U.S. dollar.

If a partnership holds ordinary shares or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership. Partners of a partnership holding these ordinary shares or ADSs should consult their tax advisors as to the tax consequences of owning or disposing of ordinary shares or ADSs, as applicable.

Under French law, specific rules apply to trusts, in particular specific tax and filing requirements as well as modifications to wealth, estate and gift taxes as they apply to trusts. Given the complex nature of these rules and the fact that their application varies depending on the status of the trust, the grantor, the beneficiary and the assets held in the trust, the following summary does not address the tax treatment of ADSs or shares held in a trust. If ADSs or shares are held in trust, the grantor, trustee and beneficiary are urged to consult their own tax adviser regarding the specific tax consequences of acquiring, owning and disposing of ADSs or shares.

In addition, the discussion of the material French tax consequences is limited to U.S. Holders that (i) are residents of the United States for purposes of the Treaty (as defined below), (ii) do not maintain a permanent establishment or fixed base in France to which the shares or ADSs are attributable and through which the respective U.S. Holders carry on, or have carried on, a business (or, if the holder is an individual, performs or has performed independent personal services), and (iii) are otherwise eligible for the benefits of the Treaty in respect of income and gain from the shares or ADSs. In addition, this section is based in part upon the representations of the Depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

This section is based on the Internal Revenue Code of 1986 ( IRC ), as amended, its legislative history, existing and proposed regulations, published rulings and court decisions, and with respect to the description of the material French tax consequences, the laws of the Republic of France and French tax regulations, all as currently in effect, as well as on the Convention Between the United States and the Republic of France for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital dated August 31, 1994 as amended (the Treaty ). These laws, regulations and the Treaty are subject to change, possibly on a retroactive basis.

This discussion is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects of the ownership or disposition of the shares and ADSs and is not intended to substitute competent professional advice. Individual situations of holders of shares and ADSs may vary from the description made below. The following summary does not address the French tax treatment applicable to dividends paid in so-called Non Cooperative Countries and Territories ( NCCT ) within the meaning of Section 238-0 A of the French Tax Code. It does not apply to dividends paid to persons established or

domiciled in such a NCCT, or paid to a bank account opened in a financial institution located in such a NCCT.

**Holders are urged to consult their own tax advisors regarding the U.S. federal, state and local, and French and other tax consequences of owning and disposing shares or ADSs of TOTAL in their respective circumstances. In particular, a holder is encouraged to confirm with its advisor whether the holder is a U.S. Holder eligible for the benefits of the Treaty.**

## **5.2. Taxation of dividends**

### **5.2.1. French taxation**

The term dividends used in the following discussion means dividends within the meaning of the Treaty.

Dividends paid to non-residents of France are in principle subject to a French withholding tax at a rate of 30%, regardless of whether they are paid in cash, in shares or a mix of both.

However, under the Treaty, a U.S. Holder is generally entitled to a reduced rate of French withholding tax of 15% with respect to dividends, provided that certain requirements are satisfied.

Administrative guidelines (*Bulletin Officiel des Finances Publiques*, BOI-INT-DG-20-20-20-20120912) (the Administrative Guidelines ) set forth the conditions under which the reduced French withholding tax at the rate of 15% may be available. The immediate application of the reduced 15% rate is available to those U.S. Holders that may benefit from the so-called simplified procedure (within the meaning of the Administrative Guidelines).

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Under the simplified procedure, U.S. Holders may claim the immediate application of withholding tax at the rate of 15% on the dividends to be received by them, provided that:

- (i) they furnish to the U.S. financial institution managing their securities account a certificate of residence conforming with form No. 5000-FR. The immediate application of the 15% withholding tax will be available only if the certificate of residence is sent to the U.S. financial institution managing their securities account no later than the dividend payment date. Furthermore, each financial institution managing the U.S. Holders' securities account must also send to the French paying agent the figure of the total amount of dividends to be received which are eligible to the reduced withholding tax rate before the dividend payment date; and
- (ii) the U.S. financial institution managing the U.S. Holder's securities account provides to the French paying agent a list of the eligible U.S. Holders and other pieces of information set forth in the Administrative Guidelines. Furthermore, the financial institution managing the U.S. Holders' securities account should certify that the U.S. Holder is, to the best of its knowledge, a United States resident within the meaning of the Treaty. These documents must be sent to the French paying agent within a time frame that will allow the French paying agent to file them no later than the end of the third month computed as from the end of the month of the dividend payment date.

Where the U.S. Holder's identity and tax residence are known by the French paying agent, the latter may release such U.S. Holder from furnishing to (i) the financial institution managing its securities account, or (ii) as the case may be, the U.S. Internal Revenue Service ( IRS ), the abovementioned certificate of residence, and apply the 15% withholding tax rate to dividends it pays to such U.S. Holder.

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## Item 10 - 5. Taxation

For a U.S. Holder that is not entitled to the simplified procedure and whose identity and tax residence are not known by the paying agent at the time of the payment, the 30% French withholding tax will be levied at the time the dividends are paid. Such U.S. Holder, however, may be entitled to a refund of the withholding tax in excess of the 15% rate under the standard , as opposed to the simplified procedure , provided that the U.S. Holder furnishes to the French paying agent an application for refund on forms No. 5000-FR and 5001-FR (or any other relevant form to be issued by the French tax authorities) certified by the U.S. financial institution managing the U.S. Holder's securities account (or, if not, by the competent U.S. tax authorities) before December 31 of the second year following the date of payment of the withholding tax at the 30% rate to the French tax authorities, according to the requirements provided by the Administrative Guidelines.

Copies of forms No. 5000-FR and 5001-FR (or any other relevant form to be issued by the French tax authorities) as well as the form of the certificate of residence and the U.S. financial institution certification, together with instructions, are available from the IRS and the French tax authorities.

These forms, together with instructions, are to be provided by the Depository to all U.S. Holders of ADRs registered with the Depository. The Depository is to use reasonable efforts to follow the procedures established by the French tax authorities for U.S. Holders to benefit from the immediate application of the 15% French withholding tax rate or, as the case may be, to recover the excess 15% French withholding tax initially withheld and deducted in respect of dividends distributed to them by TOTAL. To effect such benefit or recovery, the Depository shall advise such U.S. Holder to return the relevant forms to it, properly completed and executed. Upon receipt of the relevant forms properly completed and executed by such U.S. Holder, the Depository shall cause them to be filed with the appropriate French tax authorities, and upon receipt of any resulting remittance, the Depository shall distribute to the U.S. Holder entitled thereto, as soon as practicable, the proceeds thereof in U.S. dollars.

The identity and address of the French paying agent are available from TOTAL.

In addition, subject to certain specific filing obligations, there is no withholding tax on dividend payments made by French companies to non-French collective investment funds formed under foreign law and established in a Member State of the European Union or in another State or territory, such as the United States, that has entered with France into an administrative assistance agreement for the purpose of combating fraud and tax evasion, and which fulfill the two following conditions:

the fund raises capital among a number of investors for the purpose of investing in accordance with a defined investment policy, in the interest of its investors; and

the fund has characteristics similar to those of collective investment funds organized under French law (open-end mutual fund (OPCVM), open-end real estate fund (OPCI) and closed-end investment companies (SICAF)).

Collective investment funds are urged to consult their own tax advisors to confirm whether they are eligible to such provisions and under which conditions.

**5.2.2. U.S. taxation**

For U.S. federal income tax purposes and subject to the passive foreign investment company rules discussed below, the gross amount of any dividend a U.S. Holder must include in gross income equals the amount paid by TOTAL to the extent of the current and accumulated earnings and profits of TOTAL (as

determined for U.S. federal income tax purposes). Dividends paid to a non-corporate U.S. Holder that constitute qualified dividend income will be taxable to the holder at the preferential rates applicable to long-term capital gains provided that the shares or ADSs are held for more than sixty days during the 121-day period beginning sixty days before the ex-dividend date and the holder meets other holding period requirements. TOTAL believes that dividends paid by TOTAL with respect to its shares or ADSs will be qualified dividend income. The dividend will not be eligible for the dividends-received deduction allowed to a U.S. corporation under Section 243 of the Code. The dividend is taxable to the U.S. Holder when the holder, in the case of shares, or the Depository, in the case of ADSs, receives the dividend, actually or constructively. To the extent that an amount received by a U.S. Holder exceeds the allocable share of TOTAL's current and accumulated earnings and profits, it will be applied first to reduce such holder's tax basis in shares or ADSs owned by such holder and then, to the extent it exceeds the holder's tax basis, it will constitute capital gain.

The amount of any dividend distribution includible in the income of a U.S. Holder equals the U.S. dollar value of the euro payment made, determined at the spot euro/dollar exchange rate on the date the dividend distribution is includible in the U.S. Holder's income, regardless of whether the payment is in fact converted into U.S. dollars. Any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is includible in the U.S. Holder's income to the date the payment is converted into U.S. dollars will generally be treated as ordinary income or loss from sources within the United States and will not be eligible for the special tax rate applicable to qualified dividend income.

Subject to certain conditions and limitations, French taxes withheld in accordance with the Treaty will generally be eligible for credit against the U.S. Holder's U.S. federal income tax liability. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. In addition, special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the preferential tax rates. To the extent a refund of the tax withheld is available to a U.S. Holder under French law or under the Treaty, the amount of tax withheld that is refundable will not be eligible for credit



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against such an individual's United States federal income tax liability.

For this purpose, dividends distributed by TOTAL will constitute passive income, or, in the case of certain U.S. Holders, general income, which are treated separately from one another for purposes of computing the foreign tax credit allowable to the U.S. Holder. Alternatively, a U.S. Holder may claim all foreign taxes paid as an itemized deduction in lieu of claiming a foreign tax credit.

If a U.S. holder has the option to receive a distribution in shares (or ADSs) instead of cash, the distribution of shares (or ADSs) will be taxable as if the holder had received an amount equal to the fair market value of the distributed shares (or ADSs), and such holder's tax basis in the distributed shares (or ADSs) will be equal to such amount.

### **5.3. Taxation of disposition of shares**

In general, a U.S. Holder will not be subject to French tax on any capital gain from the sale or exchange of the ADSs or redemption of the underlying shares unless those ADSs or shares form part of a business property of a permanent establishment or fixed base that the U.S. Holder has in France. Special rules may apply to individuals who are residents of more than one country.

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### **Item 10 - 5. Taxation**

A financial transaction tax applies, under certain conditions, to the acquisition of shares of publicly traded companies registered in France having a market capitalization over €1 billion on December 31 of the year preceding the acquisition. A list of the companies within the scope of the financial transaction tax for 2015 is published in the French Guidelines *Bulletin Officiel des Finances Publiques*, BOI-ANNX-000467-20141226. TOTAL is included in this list. The tax also applies to the acquisition of ADRs evidencing ADSs. The financial transaction tax is due at a rate of 0.2% on the price paid to acquire the shares. The person or entity liable for the tax is generally the provider of investment services defined in Article L. 321-1 of the French Monetary and Financial Code (*prestataire de services d'investissement*). Investment service providers providing equivalent services outside France are subject to the tax under the same terms and conditions. Taxable transactions are broadly construed but several exceptions may apply. In general, non-income taxes, such as this financial transaction tax, paid by a U.S. Holder are not eligible for a foreign tax credit for U.S. federal income tax purposes. U.S. Holders should consult their own tax advisors as to the tax consequences and creditability of such financial transaction tax.

For U.S. federal income tax purposes and subject to the passive foreign investment company rules discussed below, a U.S. Holder generally will recognize capital gain or loss upon the sale or disposition of shares or ADSs equal to the difference between the U.S. dollar value of the amount realized on the sale or disposition and the holder's tax basis, determined in U.S. dollars, in the shares or ADSs. The gain or loss generally will be U.S. source gain or loss and will be long-term capital gain or loss if the U.S. Holder's holding period of the shares or ADSs is more than one year at the time of the disposition. Long-term capital gain of a non-corporate U.S. Holder is generally taxed at preferential rates. The deductibility of capital losses is subject to limitation.

#### **5.4. Passive foreign investment status**

TOTAL believes that the shares or ADSs will not be treated as stock of a passive foreign investment company, or PFIC, for United States federal income tax purposes, but this conclusion is a factual determination that is made annually and thus is subject to change. If TOTAL is treated as a PFIC, unless a U.S. Holder elects to be taxed annually on a mark-to-market basis with respect to the shares or ADSs, gain realized on the sale or other disposition of

the shares or ADSs would in general not be treated as capital gain. Instead, a U.S. Holder would be treated as if he or she had realized such gain and certain excess distributions ratably over the holding period for the shares or ADSs and would be taxed at the highest tax rate in effect for each such year to which the gain was allocated, in addition to which an interest charge in respect of the tax attributable to each such year would apply. With certain exceptions, a U.S. Holder's shares or ADSs will be treated as stock in a PFIC if TOTAL were a PFIC at any time during his or her holding period in the shares or ADSs. Dividends paid will not be eligible for the preferential tax rates applicable to qualified dividend income if TOTAL is treated as a PFIC with respect to a U.S. Holder either in the taxable year of the distribution or the preceding taxable year, but instead will be taxable at rates applicable to ordinary income.

#### **5.5. French estate and gift taxes**

In general, a transfer of ADSs or shares by gift or by reason of the death of a U.S. Holder that would otherwise be subject to French gift or inheritance tax, respectively, will not be subject to such French tax by reason of the Convention between the United States of America and the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritances and Gifts, dated November 24, 1978 as amended, unless the donor or the transferor is domiciled in France at the time of making the gift, or at the time of his death, or if the ADSs or shares were used in, or held for use in, the conduct of a business through a permanent establishment or a fixed base in France.

#### **5.6. French wealth tax**

The French wealth tax does not apply to a U.S. Holder (i) that is not an individual, or (ii) in the case of individuals who are eligible for the benefits of the Treaty and who own, alone or with related persons, directly or indirectly, TOTAL shares which give right to less than 25% of TOTAL's earnings.

#### **5.7. U.S. state and local taxes**

In addition to U.S. federal income tax, U.S. Holders of shares or ADSs may be subject to U.S. state and local taxes with respect to their shares or ADSs. U.S. Holders should consult their own tax advisors.

## **6. Dividends and Paying Agents**

Refer to Item 8 2.2. Dividend payment , above.

## 7. Documents on Display

TOTAL files annual, periodic, and other reports and information with the Securities and Exchange Commission. You may inspect any reports, statements or other information TOTAL files with the United States Securities and Exchange Commission ( SEC ) at the SEC s public reference rooms by calling the SEC for more information at 1-800-SEC-0330. All of TOTAL s SEC filings made

after December 31, 2001, are available to the public at the SEC website at <http://www.sec.gov> and from certain commercial document retrieval services. You may also inspect any document the Company files with the SEC at the offices of The New York Stock Exchange, 20 Broad Street, New York, New York 10005.

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**ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Please refer to Note 31 to the Consolidated Financial Statements included elsewhere herein for a qualitative and quantitative discussion of the Group's exposure to market risks. Please also refer to Notes 29 and 30 to the Consolidated Financial Statements included elsewhere herein for details of the different derivatives owned by the Group in these markets.

As part of its financing and cash management activities, the Group uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. The Group may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Note 1 paragraph M and Notes 20, 28 and 29 to the Consolidated Financial Statements included elsewhere herein.

The financial performance of TOTAL is sensitive to a number of factors, the most significant being oil and gas prices, generally expressed in dollars, and exchange rates, in particular that of the dollar versus the euro. Generally, a rise in the price of crude oil has a positive effect on earnings as a result of an increase in revenues from oil and gas production. Conversely, a decline in crude oil prices reduces revenues. The impact of changes in crude oil prices on the activities of the Refining & Chemicals and Marketing & Services segments depends upon the speed at which the prices of finished products adjust to reflect these changes. All of the Group's activities are, to various degrees, sensitive to fluctuations in the dollar/euro exchange rate.

**ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES****American Depositary Receipts fees and charges**

On November 12, 2014, JPMORGAN CHASE BANK, N.A. was appointed successor depositary bank for the TOTAL S.A. ADR program, replacing the Bank of New York Mellon.

JPMORGAN CHASE BANK, N.A., as a depositary, collects its fees for delivery and surrender of ADRs directly from investors depositing shares or surrendering ADRs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

Investors must pay:	For:
\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	Issuance of ADRs, including issuances resulting from a distribution of shares or rights or other property, stocks splits or mergers
A fee equivalent to the fee that would be payable if securities distributed to the investor had been shares and the shares had been deposited for issuance of ADSs Registration or transfer fees	Cancellation of ADRs for the purpose of withdrawal, including if the deposit agreement terminates Distribution of securities distributed to holders of deposited securities that are distributed by the depositary to ADS registered holders Transfer and registration of shares on the Company's share register to or from the name of the depositary or its agent when the investor deposits or withdraws shares
Expenses of the depositary	Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement)
Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes	Converting foreign currency to U.S. dollars As necessary

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Any charges incurred by the depositary or its agents for servicing the deposited securities As necessary

The depositary has agreed to provide the Company with payments concerning, among other things, expenses incurred by the Company for the establishment and maintenance of the ADR program that include, but are not limited to, exchange listing fees, annual meeting expenses, standard out-of-pocket maintenance costs for the ADRs (e.g., the expenses of postage and envelopes for mailing annual and interim financial reports, printing and distributing dividend checks, electronic filing of U.S. Federal tax information, mailing required tax forms, stationery, postage, facsimile, and telephone calls), shareholder identification, investor relations activities or programs in North America, accounting fees (such as external audit fees incurred in connection with the

Sarbanes-Oxley Act, the preparation of the Company's Form 20-F and paid to the FASB and the PCAOB), legal fees and other expenses incurred in connection with the preparation of regulatory filings and other documentation related to ongoing SEC, NYSE and U.S. securities law compliance. In certain instances, the depositary has agreed to provide additional payments to the Company based on certain applicable performance indicators related to the ADR facility.

During the calendar year preceding March 16, 2015, the Company received net payments from the depositaries of approximately \$4.2 million.

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**ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

None.

**ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF  
SECURITY HOLDERS AND USE OF PROCEEDS**

None.

**ITEM 15. CONTROLS AND PROCEDURES**

**1. Disclosure controls and procedures**

An evaluation was carried out under the supervision and with the participation of the Group's management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness, as of the end of the period covered by this report, of the design and operation of the Group's disclosure controls and procedures, which are defined as those controls and procedures designed to ensure that information required to be disclosed in reports filed under the Securities Exchange Act of 1934, as amended, is recorded, summarized and reported within specified time periods. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective

disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives. Based on this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that the Company files under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to management, including the Chief Executive Officer and the Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

**2. Management's annual report on internal control over financial reporting**

The Group's management is responsible for establishing and maintaining adequate internal control over financial reporting. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements and even when determined to be effective, can only provide reasonable assurance with respect to financial statement preparation and presentation. Also, the effectiveness of an internal control system may change over time.

The Group's management, including the Chief Executive Officer and the Chief Financial Officer, conducted an evaluation of the effectiveness of internal control over financial reporting using the

criteria set forth in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ( COSO ). Based on the results of this evaluation, the Group's management concluded that its internal control over financial reporting was effective as of December 31, 2014.

The effectiveness of internal control over financial reporting as of December 31, 2014, was audited by KPMG S.A. and Ernst & Young Audit, independent registered public accounting firms, as stated in their report on page F-2 of this Annual Report.

### **3. Changes in internal control over financial reporting**

In 2014, the Group adapted its internal control system to the 2013 COSO framework, which superseded the 1992 COSO framework as from December 15, 2014.

With respect to Sarbanes-Oxley Act Section 404 ( Section 404 ), the threshold used to determine entities subject to tests of controls was increased in 2014. In addition, the limits for qualification of internal control deficiencies were also increased, and the Group reinforced the controls applicable to equity consolidated affiliates.

These changes were made in order to reflect the evolution in TOTAL 's financial aggregates since the system 's implementation,

and to convert the threshold into US Dollars following the change, effective January 1, 2014, of the presentation currency of the Group 's Consolidated Financial Statements from the Euro to the US Dollar.

The above-mentioned changes did not materially modify the coverage of the Group 's consolidated financial aggregates with respect to Section 404.

No other changes in the Group 's internal control over financial reporting occurred during the period covered by this report that have materially affected, or that were reasonably likely to materially affect, the Group 's internal control over financial reporting.

#### **ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT**

Ms. Patricia Barbizet is the Audit Committee financial expert. Ms. Barbizet is an independent member of the Board of Directors in accordance with the NYSE listing standards applicable to TOTAL, as are the other members of the Audit Committee.

#### **ITEM 16B. CODE OF ETHICS**

At its meeting on October 30, 2012, the Board of Directors adopted a code of ethics that applies to its Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and the financial and accounting officers for its principal activities. A copy of this code of ethics is included as an exhibit to this Annual Report.

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Items 16C - 16D

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES****1. Fees for accountants services**

During the fiscal years ended December 31, 2014 and 2013, fees for services provided by Ernst & Young Audit and KPMG were as follows:

(M\$)	Ernst & Young Audit		KPMG	
	fiscal year		fiscal year	
	2014	2013	2014	2013
Audit Fees	24.7	24.4	20.8	20.2
Audit-Related Fees <sup>(a)</sup>	1.1	1.7	6.8	6.3
Legal, Tax, Labor Law Fees <sup>(b)</sup>	3.3	3.3	2.7	2.5
All Other Fees <sup>(c)</sup>		0.3		0.4
<b>Total</b>	<b>29.1</b>	<b>29.7</b>	<b>30.3</b>	<b>29.4</b>

<sup>(a)</sup> Audit-related fees are generally fees billed for services that are closely related to the performance of the audit or review of financial statements. These include due diligence services related to business combinations, attestation services not required by statute or regulation, agreed upon or expanded auditing procedures related to accounting or billing records required to respond to or comply with financial, accounting or regulatory reporting matters, consultations concerning financial accounting and reporting standards, information system reviews, internal control reviews and assistance with internal control reporting requirements.

<sup>(b)</sup> Tax fees are fees for services related to international and domestic tax compliance, including the preparation of tax returns and claims for refund, tax planning and tax advice, including assistance with tax audits and tax appeals, and tax services regarding statutory, regulatory or administrative developments and expatriate tax assistance and compliance.

<sup>(c)</sup> All other fees are principally for risk management advisory services.

**2. Audit Committee Pre-Approval Policy**

The Audit Committee has adopted an Audit and Non-Audit Services Pre-Approval Policy that sets forth the procedures and the conditions pursuant to which services proposed to be performed by the statutory auditors may be pre-approved and that are not prohibited by regulatory or other professional requirements. This policy provides for both pre-approval of certain types of services through the use of an annual budget approved by the Audit Committee for these types of services and special pre-

approval of services by the Audit Committee on a case-by-case basis. The Audit Committee reviews on an annual basis the services provided by the statutory auditors. During 2014, no audit-related fees, tax fees or other non-audit fees were approved by the Audit Committee pursuant to the *de minimis* exception to the pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

**ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES**



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TOTAL's Audit Committee consists of four directors including three directors who meet the independence requirements under Rule 10A-3 of the Securities Exchange Act of 1934, as amended, and one who is exempt under such requirements pursuant to the Rule 10A-3(b)(1)(iv)(C) exemption for non-executive officer employees. The Audit Committee member exempt from the independence requirements under this rule is Mr. Charles Keller,

appointed as the director representing employee shareholders pursuant to Article L.225-23 of the French Commercial Code (see Item 6 - C. Board Practices and Corporate Governance - 3.1. Audit Committee ). TOTAL's reliance on such exemptions does not materially adversely affect the ability of the Audit Committee to act independently.

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**ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS**

Period	Total Number Of Shares Purchased	Average Price Paid Per Share (€)	Total Number Of Shares Purchased, As Part Of Publicly Announced Plans Or Programs <sup>(a)</sup>	Maximum Number Of Shares That May Yet Be Purchased Under The Plans Or Programs <sup>(b)</sup>
January 2014				128,556,625
February 2014				128,572,574
March 2014				128,618,295
April 2014				128,650,950
May 2014				128,693,386
June 2014				129,079,809
July 2014				133,422,676
August 2014	4,386,300	48.517	4,386,300	129,044,305
September 2014				129,091,092
October 2014				129,094,699
November 2014				129,104,355
December 2014				129,165,339
January 2015				129,266,822
February 2015				129,291,634

<sup>(a)</sup> The shareholders' meeting of May 16, 2014, canceled and replaced the previous resolution from the shareholders' meeting of May 17, 2013, authorizing the Board of Directors to trade in the Company's own shares on the market for a period of eighteen months within the framework of the stock purchase program. The maximum number of shares that may be purchased by virtue of this authorization or under the previous authorization may not exceed 10% of the total number of shares constituting the share capital, this amount being periodically adjusted to take into account operations modifying the share capital after each shareholders' meeting. Under no circumstances may the total number of shares the Company holds, either directly or indirectly through its subsidiaries, exceed 10% of the share capital.

<sup>(b)</sup> Based on 10% of the Company's share capital, and after deducting the shares held by the Company for cancellation and the shares held by the Company to cover the share purchase option plans for Company employees and restricted share grants for Company employees, as well as after deducting the shares held by the subsidiaries.

**ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT**

Not applicable.

**ITEM 16G. CORPORATE GOVERNANCE****1. Summary of Significant Differences between French Corporate Governance Practices and the NYSE's Corporate Governance Standards, as required by section 303A.11 of the NYSE Listed Company Manual****1.1. Overview**

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The following paragraphs provide a brief, general summary of significant ways in which our corporate governance practices differ from those required by the listing standards of the New York Stock Exchange (the NYSE) for U.S. companies that have common stock listed on the NYSE. While our management believes that our corporate governance practices are similar in many respects to those of U.S. domestic NYSE listed companies and provide investors with protections that are comparable in many respects to those established by the NYSE Listed Company Manual, certain significant differences are described below.

The principal sources of corporate governance standards in France are the French Commercial Code (Code de Commerce), the French Financial and Monetary Code (Code monétaire et financier), as amended from time to time, and the regulations and recommendations provided by the French Financial Markets Authority (Autorité des marchés financiers, AMF), as well as a number of general recommendations and guidelines on corporate governance, most notably the Corporate Governance Code for Listed Companies published in December 2008 (as amended in April 2010 and June 2013) by the principal French business confederations, the Association Française des Entreprises Privées (AFEP) and the Mouvement des Entreprises de France (MEDEF) (the AFEP-MEDEF Code).

The AFEP-MEDEF Code includes, among other things, recommendations relating to the role and operation of the board of directors (creation, composition and evaluation of the board of directors and the audit, compensation and nominating committees) and the independence criteria for board members. Articles L. 820-1 *et seq.* of the French Commercial Code prohibits statutory auditors from providing certain non-audit services and defines certain criteria for the independence of statutory auditors. In France, the independence of statutory auditors is also monitored by an independent body, the High Council for Statutory Auditors (Haut Conseil du commissariat aux comptes).

For an overview of certain of our corporate governance policies, see Item 6 C. Board Practices and Corporate Governance.

### **1.2. Composition of Board of Directors; Independence**

The NYSE listing standards provide that the board of directors of a U.S.-listed company must consist of a majority of independent

directors and that the audit committee, the nominating/corporate governance committee and the compensation committee must be composed entirely of independent directors. A director qualifies as independent only if the board affirmatively determines that the director has no material relationship with the company, either directly or as a partner, shareholder or officer of an organization that has a relationship with the company. Furthermore, as

**Table of Contents**[Item 16G - Summary of Significant Corporate Governance Differences](#)

discussed below, the listing standards require additional procedures in regards to the independence of directors who sit on the compensation committee. In addition, the listing standards enumerate a number of relationships that preclude independence.

French law does not contain any independence requirement for the members of the board of directors of a French company, except for the audit committee, as described below. The AFEP-MEDEF Code recommends, however, that (i) at least half of the members of the board of directors be independent in companies that have a dispersed ownership structure and no controlling shareholder, and (ii) at least a third of the members of the board of directors be independent in companies that have a controlling shareholder. Members of the board representing the employee shareholders, as well as members representing the employees, are not taken into account in order to determine these percentages. The AFEP-MEDEF Code states that a director is independent when he or she has no relationship of any kind whatsoever with the corporation, its group or the management of either that may colour his or her judgment. The AFEP-MEDEF Code also enumerates specific criteria for determining independence, which are on the whole consistent with the goals of the NYSE's rules, including recent amendments, although the specific tests under the two standards may vary on some points.

For an overview of the Board of Directors' assessment of the independence of the Company's Directors, including a description of the Board's independence criteria, refer to Item 6 C. Board Practices and Corporate Governance 5. Director independence .

**1.3. Representation of women on corporate boards**

French commercial law provides for legally binding quotas to boost the percentage of women on boards of directors of French-listed companies, requiring that women represent: (i) at least 20% following the first ordinary shareholders' meeting held after January 1, 2014, and (ii) at least 40% following the first ordinary shareholders' meeting held after January 1, 2017. Members of the board representing the employees are not taken into account in order to determine these percentages. When the board of directors consists of less than nine members, the difference between the number of directors of each gender when the 40% quota will apply should not be higher than two. Any appointment of a director made in violation of these rules shall be declared null and void and the payment of the directors' compensation shall be suspended until the board composition complies with the law's requirements (the management report shall also indicate the suspension of the directors' compensation until the board composition complies with the law's requirements). However, decisions of a board of directors that fail to comply with these quotas may not be declared null and void. In addition, the AFEP-MEDEF Code recommends compliance with said 40% quota within a period of six years from the date of the 2010 annual ordinary shareholders' meeting. As of February 11, 2015, the Company's Board had five female members (38.5% of the Directors).

**1.4. Board committees****1.4.1. Overview**

The NYSE listing standards require that a U.S.-listed company have an audit committee, a nominating/corporate governance committee and a compensation committee. Each of these

committees must consist solely of independent directors and must have a written charter that addresses certain matters specified in the listing standards. Furthermore, the listing standards require that, in addition to the independence criteria referenced above under Composition of Board of Directors; Independence , certain enumerated factors be taken into consideration when making a determination on the independence of directors on the compensation committee or when engaging advisors to the compensation committee.

With the exception of an audit committee, as described below, French law requires neither the establishment of board committees nor the adoption of written charters.

The AFEP-MEDEF Code recommends, however, that the board of directors sets up, in addition to an audit committee, a nominating committee and a compensation committee, indicating that the nominating and compensation committees may form only one committee. The AFEP-MEDEF Code also recommends that at least two-thirds of the audit committee members and a majority of the members of each of the compensation committee and the nominating committee be independent directors, it being specified that the chairman of the compensation committee should be independent, and that the audit committee should not include any executive director.

TOTAL has established an Audit Committee, a Compensation Committee, a Governance and Ethics Committee and a Strategic Committee. As of December 31, 2014, the composition of these committees was as follows:

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The Audit Committee had four members. With the exception of the director representing the employee shareholders, Mr. Keller (see 1.4.2. Audit committee , below, and Item 16D. Exemptions from the listing standards for audit committees ), all members of this committee have been deemed independent by the Board of Directors.

The Compensation Committee had four members (Mr. Desmarest withdrew from this Committee at the time of his appointment as Chairman of the Board of Directors). With the exception of Mr. Pébereau, who chairs the Committee, all members of this committee have been deemed independent by the Board of Directors. As Mr. Pébereau did not request the renewal of his directorship at the Shareholders Meeting to be held on May 29, 2015, the Compensation Committee, following the Shareholders Meeting of May 29, 2015, will have three members, all three being independent directors.

The Governance and Ethics Committee had six members. With the exception of Mr. Desmarest, who chairs the Committee and Mr. Collomb, all members of this committee have been deemed independent by the Board of Directors. As Mr. Collomb did not request the renewal of his directorship at the Shareholders Meeting to be held on May 29, 2015, the Governance and Ethics Committee will have five members following the Shareholders Meeting of May 29, 2015.

The Strategic Committee had six members. With the exception of Mr. Desmarest, who chairs the Committee and Ms. Lauvergeon, all members of this committee have been deemed independent by the Board of Directors. As Ms. Lauvergeon did not request the renewal of her directorship at the Shareholders Meeting of May 29, 2015, she will leave the Strategic Committee following the Shareholders Meeting. In addition, at its meeting of

<sup>(1)</sup> As per French law and the AFEP-MEDEF Code, the director representing employees shall be excluded for the computation of the gender percentage. As of February 11, 2015, the gender percentage is 38.5%, because five Board seats are held by women out of a total of thirteen seats (excluding the director representing the employees of TOTAL's Board of Directors).

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### **Item 16G - Summary of Significant Corporate Governance Differences**

February 11, 2015, and further to a proposal by the Governance and Ethics Committee, the Board of Directors decided that Mr. Pouyanné, Chief Executive Officer, shall become a member of the Strategic Committee, subject to the approval of his appointment as a director by the Shareholders Meeting of May 29, 2015.

For the text of the charters that define the scope of each committee's activity and the independence assessment of each member, see Item 6 C. Board Practices and Corporate Governance 3. Committees of the Board of Directors .

The NYSE listing standards also require that the audit, nominating/corporate governance and compensation committees of a U.S.-listed company be vested with decision-making powers on certain matters. Under French law, these committees are advisory in nature and have no decision-making authority. Board committees are responsible for examining matters within the scope of their charter and making recommendations on these matters to the board of directors. Under French law, the board of directors has the final decision-making authority.

#### **1.4.2. Audit committee**

The NYSE listing standards contain detailed requirements for the audit committees of U.S.-listed companies. Some, but not all, of these requirements also apply to non-U.S.-listed companies, such as TOTAL.

French law requires the board of directors of companies listed in France to establish an audit committee (Article L. 823-19 of the French Commercial Code), at least one member of which must be an independent director and must be competent in finance or accounting. The AFEP-MEDEF Code provides that at least two-thirds of the directors on the audit committee be independent and that the audit committee should not include any executive director. Under NYSE rules, in the absence of an applicable exemption, audit committees are required to comply with the independence requirements of Rule 10A-3 of the Exchange Act. TOTAL's Audit Committee consists of four directors including three directors who meet the independence requirements under Rule 10A-3, and one who is exempt under such requirements pursuant to the Rule 10A-3(b)(1)(iv)(C) exemption for non-executive officer employees. The Audit Committee member exempt from the independence requirements under this rule is Mr. Keller, the director representing employee shareholders (see Item 6 C. Board Practices and Corporate Governance 3.1. Audit Committee ).

Pursuant to French law and the AFEP-MEDEF Code, the audit committee is responsible for, among other things, reviewing the financial statements and ensuring the relevance and consistency of accounting methods used in drawing up the consolidated and corporate accounts, examining the company's risk exposure and material off-balance sheet commitments and the scope of consolidation, monitoring the process for the preparation of financial information, monitoring the efficiency of internal control procedures and risk management systems, managing the process of selecting statutory auditors, expressing an opinion on the amount of their fees and monitoring compliance with rules designed to ensure auditor independence, regularly interviewing statutory auditors without the executive management being present and calling upon outside experts if necessary.

Although the audit committee requirements under French law and recommendations under the AFEP-MEDEF Code are less detailed than those contained in the NYSE listing standards, French law and the AFEP-MEDEF Code share the goal of establishing a system for overseeing the company's accounting that is independent from management and that ensures auditor

independence. As a result, they address similar topics, and there is some overlap.

For the specific tasks performed by the Audit Committee of TOTAL that exceed those required by French law and those recommended by the AFEP-MEDEF Code, see Item 6 C. Board Practices and Corporate Governance 3.1. Audit Committee .

One structural difference between the legal status of the audit committee of a U.S.-listed company and that of a French-listed company concerns the degree of the committee's involvement in managing the relationship between the company and the auditor. French law requires French companies that publish consolidated financial statements, such as TOTAL S.A., to have two co-auditors. While the NYSE listing standards require that the audit committee of a U.S.-listed company have direct responsibility for the appointment, compensation, retention and oversight of the work of the auditor, French law provides that the election of the co-auditors is the sole responsibility of the shareholders duly convened at a shareholders meeting. In making their decision, the shareholders may rely on proposals submitted to them by the board of directors, the decision of the latter being taken upon consultation with the audit committee. The shareholders elect the auditors for an audit period of six fiscal years. The auditors may only be dismissed by a court and only on grounds of professional negligence or incapacity to perform their mission.

#### **1.5. Meetings of non-management directors**

The NYSE listing standards require that the non-management directors of a U.S.-listed company meet at regularly scheduled executive sessions without management. French law does not contain such a requirement. The AFEP-MEDEF Code recommends, however, that non-executive directors meet periodically without the executive or in-house directors. The internal rules of operation of the board of directors must provide for such a meeting once a year, at which time the evaluation of the chairman's, chief executive officer's and deputy chief executive officer's respective performance is to be carried out, and the participants are to reflect on the future of the company's executive management.

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Although the rules of procedure of the Company's Board of Directors do not expressly provide that one meeting of the non-executive directors be held per year without the participation of the executive or in house directors, the Board of Directors' practice constitutes a mechanism that has the same effect as the recommendation made in the AFEP-MEDEF Code. In fact, at its meeting held each year in February, the Board of Directors evaluates the performances of the Chief Executive Officer and, where applicable, reflects on the future of the Company's management. When these particular matters are reviewed, the Chief Executive Officer (who is not a director) as well as the members of the Executive Committee present at the meeting (that are not directors), leave the Board meeting.

### **1.6. Disclosure**

The NYSE listing standards require U.S.-listed companies to adopt, and post on their websites, a set of corporate governance guidelines. The guidelines must address, among other things: director qualification standards, director responsibilities, director access to management and independent advisers, director compensation, director orientation and continuing education, management succession, and an annual performance evaluation of the board. In addition, the chief executive officer of a U.S.-listed company must certify to the NYSE annually that he or she is not aware of any violations by the company of the NYSE's corporate governance listing standards.

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French law requires neither the adoption of such guidelines nor the provision of such certification. The AFEP-MEDEF Code recommends, however, that the board of directors of a French-listed company performs an annual review of its operation and a formal evaluation at least once every three years, implemented under the leadership of the appointments or nominations committee or an independent director, with help from an external consultant (which for TOTAL took place in early 2013). The AFEP-MEDEF Code also recommends that the board of directors review its composition, organization and operation and that shareholders be informed of these evaluations each year in the annual report. In addition, Article L. 225-37 of the French Commercial Code provides that the chairman of the board of directors annually must describe in a report to the shareholders the composition of the board and the balanced representation of men and women in the board, the preparation and organization of the board's work, as well as the internal control and risk management procedures implemented by the company. The AFEP-MEDEF Code also includes ethical rules concerning which directors are expected to comply.

**1.7. Code of business conduct and ethics**

The NYSE listing standards require each U.S.-listed company to adopt, and post on its website, a code of business conduct and ethics for its directors, officers and employees. There is no similar requirement under French law. However, under the SEC's rules and regulations, all companies required to submit periodic reports to the SEC, including TOTAL, must disclose in their annual reports whether they have adopted a code of ethics for their principal executive officer and senior financial officers. In addition, they must file a copy of the code with the SEC, post the text of the code on their website or undertake to provide a copy upon request to any person without charge. There is significant, though not complete, overlap between the code of ethics required by the NYSE listing standards and the code of ethics for senior financial officers required by the SEC's rules. For a discussion of the code of ethics adopted by TOTAL, see Item 6. C. Board Practices and Corporate Governance and Item 16B. Code of Ethics.

**ITEM 16H. MINE SAFETY DISCLOSURE**

Not applicable.

**ITEM 17. FINANCIAL STATEMENTS**

Not applicable.

**ITEM 18. FINANCIAL STATEMENTS**

The following financial statements, together with the report of Ernst & Young Audit and KPMG S.A. thereon, are held as part of this annual report.

<u>Report of Independent Registered Public Accounting Firms on the Consolidated Financial Statements</u>	Page
<u>Report of Independent Registered Public Accounting Firms on the Internal Control over Financial Reporting</u>	F-1
<u>Consolidated Statement of Income for the Years Ended December 31, 2014, 2013 and 2012</u>	F-2
<u>Consolidated Statement of Comprehensive Income for the Years Ended December 31, 2014, 2013 and 2012</u>	F-3
<u>Consolidated Balance Sheet at December 31, 2014, 2013 and 2012</u>	F-4
<u>Consolidated Statement of Cash Flow for the Years Ended December 31, 2014, 2013 and 2012</u>	F-5
<u>Consolidated Statement of Changes in Shareholders' Equity for the Years Ended December 31, 2014, 2013 and 2012</u>	F-6
<u>Notes to the Consolidated Financial Statements</u>	F-7
<u>Supplemental Oil and Gas Information (Unaudited)</u>	F-8
Schedules have been omitted since they are not required under the applicable instructions or the substance of the required information is shown in the financial statements.	S-1

**ITEM 19. EXHIBITS**

The following documents are filed as part of this annual report:



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1	Bylaws ( <i>Status</i> ) of TOTAL S.A. (as amended through December 31, 2014).
2	The total amount of long-term debt securities authorized under any instrument does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis. We hereby agree to furnish to the SEC, upon its request, a copy of any instrument defining the rights of holders of long-term debt of the Company or of its subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.
7.1	Ratio of earnings to fixed charges.
7.2	Computation of earnings to fixed charges.
8	List of Subsidiaries (see Note 35 to the Consolidated Financial Statements included in this Annual Report).
11	Code of Ethics.
12.1	Certification of Chief Executive Officer.
12.2	Certification of Chief Financial Officer.
13.1	Certification of Chief Executive Officer.
13.2	Certification of Chief Financial Officer.
15.1	Consent of ERNST & YOUNG AUDIT and of KPMG S.A. (incorporated by reference to the Company's Annual Report on Form 20-F for the year ended December 31, 2014, filed on March 26, 2015).
15.2	Consent of DeGolyer and MacNaughton (incorporated by reference to the Company's Annual Report on Form 20-F for the year ended December 31, 2014, filed on March 26, 2015).
15.3	Third party report of DeGolyer and MacNaughton.

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**SIGNATURE**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Amendment No. 1 to the annual report on its behalf.

TOTAL S.A.

By: /s/ PATRICK POUYANNÉ  
Name: Patrick Pouyanné  
Title: Chief Executive Officer

Date: March 27, 2015

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRMS  
ON THE CONSOLIDATED FINANCIAL STATEMENTS**

Year ended December 31, 2014

The Board of Directors and Shareholders,

We have audited the accompanying consolidated balance sheets of TOTAL S.A. and subsidiaries ( the Company ) as of December 31, 2014, 2013 and 2012, and the related consolidated statements of income, comprehensive income, cash flows and changes in shareholders' equity for each of the years in the three year period ended December 31, 2014. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2014, 2013 and 2012, and the consolidated results of its operations and its consolidated cash flows for each of the years in the three year period ended December 31, 2014, in conformity with International Financial Reporting Standards as adopted by the European Union and in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

As discussed in the Introduction to the notes to the consolidated financial statements, the Company has changed the presentation currency of the consolidated financial statements from the euro to the U.S. dollar.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 2, 2015 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Paris La Défense, March 2, 2015

KPMG Audit  
/s/ MICHEL PIETTE  
Michel Piette  
Partner

/s/ VALÉRIE BESSON  
Valérie Besson  
Partner

ERNST & YOUNG Audit  
/s/ YVON SALAÜN  
Yvon Salaün  
Partner

/s/ LAURENT MIANNAY  
Laurent Miannay  
Partner

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRMS  
ON THE INTERNAL CONTROL OVER FINANCIAL REPORTING**

Year ended December 31, 2014

The Board of Directors and Shareholders,

We have audited TOTAL S.A. and subsidiaries (the Company) internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company as of December 31, 2014, 2013 and 2012, and the related consolidated statements of income, comprehensive income, cash flows and changes in shareholders' equity for each of the years in the three-year period ended December 31, 2014, and our report dated March 2, 2015 expressed an unqualified opinion on those consolidated financial statements.

Paris La Défense, March 2, 2015

/s/ MICHEL PIETTE  
Michel Piette  
Partner

KPMG Audit

/s/ VALÉRIE BESSON  
Valérie Besson  
Partner

ERNST & YOUNG Audit

/s/ YVON SALAÜN  
Yvon Salaün  
Partner

/s/ LAURENT MIANNAY  
Laurent Miannay  
Partner

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## Consolidated statement of income

**TOTAL**

For the year ended December 31, (M\$) <sup>(a)</sup>		2014	2013	2012
<b>Sales</b>	<i>(notes 4 &amp; 5)</i>	<b>236,122</b>	<b>251,725</b>	<b>257,037</b>
Excise taxes		(24,104)	(23,756)	(22,821)
Revenues from sales		212,018	227,969	234,216
Purchases, net of inventory variation	<i>(note 6)</i>	(152,975)	(160,849)	(162,908)
Other operating expenses	<i>(note 6)</i>	(28,349)	(28,764)	(29,273)
Exploration costs	<i>(note 6)</i>	(1,964)	(2,169)	(1,857)
Depreciation, depletion and amortization of tangible assets and mineral interests		(19,656)	(11,994)	(12,237)
Other income	<i>(note 7)</i>	2,577	2,290	1,897
Other expense	<i>(note 7)</i>	(954)	(2,800)	(1,178)
Financial interest on debt		(748)	(889)	(863)
Financial income from marketable securities & cash equivalents		108	85	128
Cost of net debt	<i>(note 29)</i>	(640)	(804)	(735)
Other financial income	<i>(note 8)</i>	821	696	717
Other financial expense	<i>(note 8)</i>	(676)	(702)	(641)
Equity in net income (loss) of affiliates	<i>(note 12)</i>	2,662	3,415	2,582
Income taxes	<i>(note 9)</i>	(8,614)	(14,767)	(16,747)
<b>Consolidated net income</b>		<b>4,250</b>	<b>11,521</b>	<b>13,836</b>
Group share		4,244	11,228	13,648
Non-controlling interests		6	293	188
Earnings per share (\$)		1.87	4.96	6.05
Fully-diluted earnings per share (\$)		1.86	4.94	6.02

<sup>(a)</sup> Except for per share amounts.

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## Consolidated statement of comprehensive income

**TOTAL**

For the year ended December 31, (M\$)	2014	2013	2012
<b>Consolidated net income</b>	<b>4,250</b>	<b>11,521</b>	<b>13,836</b>
<b>Other comprehensive income</b>			
Actuarial gains and losses	(1,526)	682	(1,171)
Tax effect	580	(287)	465
Currency translation adjustment generated by the parent company	(9,039)	3,129	1,324
Items not potentially reclassifiable to profit and loss	(9,985)	3,524	618
Currency translation adjustment	4,245	(1,925)	(397)
Available for sale financial assets	(29)	33	(435)
Cash flow hedge	97	156	83
Share of other comprehensive income of equity affiliates, net amount	(1,538)	(805)	249
Other	3	(12)	(18)
Tax effect	(18)	(62)	82
Items potentially reclassifiable to profit and loss	2,760	(2,615)	(436)
<b>Total other comprehensive income (net amount) (note 17)</b>	<b>(7,225)</b>	<b>909</b>	<b>182</b>
<b>Comprehensive income</b>	<b>(2,975)</b>	<b>12,430</b>	<b>14,018</b>
Group share	(2,938)	12,193	13,848
Non-controlling interests	(37)	237	170

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Consolidated balance sheet

**TOTAL**

As of December 31, (M\$)		2014	2013	2012
<b>ASSETS</b>				
<b>Non-current assets</b>				
Intangible assets, net	(notes 5 & 10)	14,682	18,395	16,965
Property, plant and equipment, net	(notes 5 & 11)	106,876	104,480	91,477
Equity affiliates: investments and loans	(note 12)	19,274	20,417	18,153
Other investments	(note 13)	1,399	1,666	1,571
Hedging instruments of non-current financial debt	(note 20)	1,319	1,418	2,145
Deferred income taxes	(note 9)	4,079	3,838	2,982
Other non-current assets	(note 14)	4,192	4,406	3,513
<b>Total non-current assets</b>		<b>151,821</b>	<b>154,620</b>	<b>136,806</b>
<b>Current assets</b>				
Inventories, net	(note 15)	15,196	22,097	22,954
Accounts receivable, net	(note 16)	15,704	23,422	25,339
Other current assets	(note 16)	15,702	14,892	13,307
Current financial assets	(note 20)	1,293	739	2,061
Cash and cash equivalents	(note 27)	25,181	20,200	20,409
Assets classified as held for sale	(note 34)	4,901	3,253	5,010
<b>Total current assets</b>		<b>77,977</b>	<b>84,603</b>	<b>89,080</b>
<b>Total assets</b>		<b>229,798</b>	<b>239,223</b>	<b>225,886</b>
<b>LIABILITIES &amp; SHAREHOLDERS EQUITY</b>				
<b>Shareholders' equity</b>				
Common shares		7,518	7,493	7,454
Paid-in surplus and retained earnings		94,646	98,254	92,485
Currency translation adjustment		(7,480)	(1,203)	(1,696)
Treasury shares		(4,354)	(4,303)	(4,274)
<b>Total shareholders' equity</b>	Group share (note 17)	<b>90,330</b>	<b>100,241</b>	<b>93,969</b>
<b>Non-controlling interests</b>		<b>3,201</b>	<b>3,138</b>	<b>1,689</b>
<b>Total shareholders' equity</b>		<b>93,531</b>	<b>103,379</b>	<b>95,658</b>
<b>Non-current liabilities</b>				
Deferred income taxes	(note 9)	14,810	17,850	16,006
Employee benefits	(note 18)	4,758	4,235	4,939
Provisions and other non-current liabilities	(note 19)	17,545	17,517	15,285
Non-current financial debt	(note 20)	45,481	34,574	29,392
<b>Total non-current liabilities</b>		<b>82,594</b>	<b>74,176</b>	<b>65,622</b>
<b>Current liabilities</b>				
Accounts payable		24,150	30,282	28,563
Other creditors and accrued liabilities	(note 21)	16,641	18,948	19,316
Current borrowings	(note 20)	10,942	11,193	14,535
Other current financial liabilities	(note 20)	180	381	232
Liabilities directly associated with the assets classified as held for sale	(note 34)	1,760	864	1,960
<b>Total current liabilities</b>		<b>53,673</b>	<b>61,668</b>	<b>64,606</b>
<b>Total liabilities and shareholders' equity</b>		<b>229,798</b>	<b>239,223</b>	<b>225,886</b>

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## Consolidated statement of cash flow

**TOTAL**

(note 27)

For the year ended December 31, (M\$)	2014	2013	2012
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>			
Consolidated net income	4,250	11,521	13,836
Depreciation, depletion and amortization	20,859	13,358	13,466
Non-current liabilities, valuation allowances, and deferred taxes	(1,980)	1,567	1,889
Impact of coverage of pension benefit plans			(465)
(Gains) losses on disposals of assets	(1,979)	(80)	(1,715)
Undistributed affiliates' equity earnings	29	(775)	272
(Increase) decrease in working capital	4,480	2,525	1,392
Other changes, net	(51)	397	183
<b>Cash flow from operating activities</b>	<b>25,608</b>	<b>28,513</b>	<b>28,858</b>
<b>CASH FLOW USED IN INVESTING ACTIVITIES</b>			
Intangible assets and property, plant and equipment additions	(26,320)	(29,748)	(25,574)
Acquisitions of subsidiaries, net of cash acquired	(471)	(21)	(245)
Investments in equity affiliates and other securities	(949)	(1,756)	(1,152)
Increase in non-current loans	(2,769)	(2,906)	(2,504)
<b>Total expenditures</b>	<b>(30,509)</b>	<b>(34,431)</b>	<b>(29,475)</b>
Proceeds from disposals of intangible assets and property, plant and equipment	3,442	1,766	1,822
Proceeds from disposals of subsidiaries, net of cash sold	136	2,654	452
Proceeds from disposals of non-current investments	1,072	330	3,618
Repayment of non-current loans	1,540	1,649	1,651
<b>Total divestments</b>	<b>6,190</b>	<b>6,399</b>	<b>7,543</b>
<b>Cash flow used in investing activities</b>	<b>(24,319)</b>	<b>(28,032)</b>	<b>(21,932)</b>
<b>CASH FLOW USED IN FINANCING ACTIVITIES</b>			
Issuance (repayment) of shares:			
Parent company shareholders	420	485	41
Treasury shares	(289)	(238)	(88)
Dividends paid:			
Parent company shareholders	(7,308)	(7,128)	(6,660)
Non-controlling interests	(154)	(156)	(133)
Other transactions with non-controlling interests	179	2,153	
Net issuance (repayment) of non-current debt	15,786	11,102	6,780
Increase (decrease) in current borrowings	(2,374)	(9,037)	(3,540)
Increase (decrease) in current financial assets and liabilities	(351)	1,298	(1,217)
<b>Cash flow used in financing activities</b>	<b>5,909</b>	<b>(1,521)</b>	<b>(4,817)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>7,198</b>	<b>(1,040)</b>	<b>2,109</b>
Effect of exchange rates	(2,217)	831	153
Cash and cash equivalents at the beginning of the period	20,200	20,409	18,147
<b>Cash and cash equivalents at the end of the period</b>	<b>25,181</b>	<b>20,200</b>	<b>20,409</b>



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## Consolidated statement of changes in shareholders' equity

**TOTAL**

(M\$)	Common shares issued		Paid-in surplus and retained earnings	Currency translation adjustment	Treasury shares		Shareholders' equity-Group share	Non-controlling interests	Total shareholders' equity
	Number	Amount			Number	Amount			
<b>As of January 1, 2012</b>	<b>2,363,767,313</b>	<b>7,447</b>	<b>86,461</b>	<b>(2,884)</b>	<b>(109,554,173)</b>	<b>(4,357)</b>	<b>86,667</b>	<b>1,749</b>	<b>88,416</b>
Net income 2012			13,648				13,648	188	13,836
Other comprehensive income (Note 17)			(987)	1,187			200	(18)	182
<b>Comprehensive income</b>			<b>12,661</b>	<b>1,187</b>			<b>13,848</b>	<b>170</b>	<b>14,018</b>
Dividend			(6,728)				(6,728)	(133)	(6,861)
Issuance of common shares (Note 17)	2,165,833	7	34				41		41
Purchase of treasury shares					(1,800,000)	(88)	(88)		(88)
Sale of treasury shares <sup>(a)</sup>			(171)		2,962,534	171			
Share-based payments (Note 25)			188				188		188
Share cancellation (Note 17)									
Other operations with non-controlling interests			20	1			21	(21)	
Other items			20				20	(76)	(56)
<b>As of December 31, 2012</b>	<b>2,365,933,146</b>	<b>7,454</b>	<b>92,485</b>	<b>(1,696)</b>	<b>(108,391,639)</b>	<b>(4,274)</b>	<b>93,969</b>	<b>1,689</b>	<b>95,658</b>
Net income 2013			11,228				11,228	293	11,521
Other comprehensive income (Note 17)			473	492			965	(56)	909
<b>Comprehensive income</b>			<b>11,701</b>	<b>492</b>			<b>12,193</b>	<b>237</b>	<b>12,430</b>
Dividend			(7,116)				(7,116)	(156)	(7,272)
Issuance of common shares (Note 17)	11,745,014	39	446				485		485
Purchase of treasury shares					(4,414,200)	(238)	(238)		(238)
Sale of treasury shares <sup>(a)</sup>			(209)		3,591,391	209			
Share-based payments (Note 25)			189				189		189
Share cancellation (Note 17)									
Other operations with non-controlling interests			749	1			750	1,355	2,105
Other items			9				9	13	22
<b>As of December 31, 2013</b>	<b>2,377,678,160</b>	<b>7,493</b>	<b>98,254</b>	<b>(1,203)</b>	<b>(109,214,448)</b>	<b>(4,303)</b>	<b>100,241</b>	<b>3,138</b>	<b>103,379</b>
Net income 2014			4,244				4,244	6	4,250
Other comprehensive income (Note 17)			(907)	(6,275)			(7,182)	(43)	(7,225)
<b>Comprehensive income</b>			<b>3,337</b>	<b>(6,275)</b>			<b>(2,938)</b>	<b>(37)</b>	<b>(2,975)</b>
Dividend			(7,378)				(7,378)	(154)	(7,532)
Issuance of common shares (Note 17)	7,589,365	25	395				420		420
Purchase of treasury shares					(4,386,300)	(283)	(283)		(283)
Sale of treasury shares <sup>(a)</sup>			(232)		4,239,335	232			
Share-based payments (Note 25)			114				114		114
Share cancellation (Note 17)									
Other operations with non-controlling interests			148	(2)			146	195	341
Other items			8				8	59	67
<b>As of December 31, 2014</b>	<b>2,385,267,525</b>	<b>7,518</b>	<b>94,646</b>	<b>(7,480)</b>	<b>(109,361,413)</b>	<b>(4,354)</b>	<b>90,330</b>	<b>3,201</b>	<b>93,531</b>

<sup>(a)</sup> Treasury shares related to the restricted stock grants.



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**TOTAL**

Notes to the Consolidated Financial Statements

On February 11, 2015, the Board of Directors established and authorized the publication of the Consolidated Financial Statements of TOTAL S.A. for the year ended December 31, 2014, which will be submitted for approval to the shareholders' meeting to be held on May 29, 2015.

**Introduction**

The Consolidated Financial Statements of TOTAL S.A. and its subsidiaries (the Group) are presented in U.S. dollars and have been prepared on the basis of IFRS (International Financial Reporting Standards) as adopted by the European Union and IFRS as issued by the IASB (International Accounting Standard Board) as of December 31, 2014.

In order to make the financial information of TOTAL more readable by better reflecting the performance of its activities mainly carried out in U.S. dollars, TOTAL has changed, effective January 1, 2014, the presentation currency of the Group's consolidated financial statements from the Euro to the US Dollar. The statutory financial statements of TOTAL S.A., the parent company of the Group, remain prepared in euro. The dividend paid remains fixed in euro.

Following this change in accounting policy, the comparative consolidated financial statements are presented in U.S. dollars.

Currency translation adjustments have been set to zero as of January 1, 2004, the date of transition to IFRS. Cumulative currency translation adjustments are presented as if the Group had used the US Dollar as the presentation currency of its consolidated financial statements since that date.

The accounting policies and principles applied in the Consolidated Financial Statements as of December 31, 2014 were the same as those that were used as of December 31, 2013 except for amendments and interpretations of IFRS which were mandatory for the periods beginning after January 1, 2014 (and not early adopted):

In May 2013, the IASB issued the interpretation IFRIC 21 Levies. This interpretation is applicable retrospectively for annual periods beginning on or after January 1, 2014. The text indicates that the obligating event for the recognition of a liability is the activity described in the relevant legislation that triggers the payment of the levy. The comparative consolidated financial statements have been restated accordingly.

The impact on shareholders' equity as of January 1, 2012, is +\$46 million. The impact on the statement of income for 2012 is not significant. Net income, Group share, for 2013 is increased by \$24 million.

The preparation of financial statements in accordance with IFRS requires the executive management to make estimates and assumptions that affect the reported amounts of assets, liabilities and contingent liabilities at the date of preparation of the financial statements and reported income and expenses for the period. The management reviews these estimates and assumptions on an ongoing basis, by reference to past experience and various other factors considered as reasonable which form the basis for assessing the carrying amount of assets and liabilities. Actual results may differ significantly from these estimates, if different assumptions or circumstances apply. These judgments and estimates relate principally to the application of the successful efforts method for the oil and gas accounting, the valuation of long-lived assets, the provisions for asset retirement obligations and environmental remediation, the pensions and post-retirement benefits and the income tax computation.

Furthermore, when the accounting treatment of a specific transaction is not addressed by any accounting standard or interpretation, the management applies its judgment to define and apply accounting policies that provide information consistent with the general IFRS concepts: faithful representation, relevance and materiality.

**1) Accounting policies**

Pursuant to the accrual basis of accounting followed by the Group, the financial statements reflect the effects of transactions and other events when they occur. Assets and liabilities such as property, plant and equipment and intangible assets are usually measured at cost. Assets and liabilities are measured at fair value when required by the standards.

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Accounting policies used by the Group are described below:

### *A) Principles of consolidation*

Entities that are directly controlled by the parent company or indirectly controlled by other consolidated entities are fully consolidated.

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Investments in joint ventures are consolidated under the equity method. The Group accounts for joint operations by recognizing its share of assets, liabilities, income and expenses.

Investments in associates, in which the Group has significant influence, are accounted for by the equity method. Significant influence is presumed when the Group holds, directly or indirectly (e.g. through subsidiaries), 20% or more of the voting rights. Companies in which ownership interest is less than 20%, but over which the Company is deemed to exercise significant influence, are also accounted for by the equity method.

All internal balances, transactions and income are eliminated.

### ***B) Business combinations***

Business combinations are accounted for using the acquisition method. This method requires the recognition of the acquired identifiable assets, assumed liabilities and any non-controlling interest in the companies acquired by the Group at their fair value.

The value of the purchase price is finalized up to a maximum of one year from the acquisition date.

The acquirer shall recognize goodwill at the acquisition date, being the excess of:

The consideration transferred, the amount of non-controlling interests and, in business combinations achieved in stages, the fair value at the acquisition date of the investment previously held in the acquired company;

Over the fair value at the acquisition date of acquired identifiable assets and assumed liabilities.

If the consideration transferred is lower than the fair value of acquired identifiable assets and assumed liabilities, an additional analysis is performed on the identification and valuation of the identifiable elements of the assets and liabilities. After having completed such additional analysis any residual negative goodwill is recorded as income.

In transactions with non-controlling interests, the difference between the price paid (received) and the book value of non-controlling interests acquired (sold) is recognized directly in equity.

### ***C) Foreign currency translation***

The financial statements of subsidiaries are prepared in the currency that most clearly reflects their business environment. This is referred to as their functional currency.

#### **(i) Monetary transactions**

Transactions denominated in foreign currencies other than the functional currency of the entity are translated at the exchange rate on the transaction date. At each balance sheet date, monetary assets and liabilities are translated at the closing rate and the resulting exchange differences are recognized in the statement of income.

#### **(ii) Translation of financial statements denominated in foreign currencies**

Assets and liabilities of foreign entities are translated into dollars on the basis of the exchange rates at the end of the period. The income and cash flow statements are translated using the average exchange rates for the period. Foreign exchange differences resulting from such translations are either recorded in shareholders equity under *Currency translation adjustments* (for the Group share) or under *Non-controlling interests* (for the share of non-controlling interests) as deemed appropriate.

### ***D) Sales and revenues from sales***

Sales figures include excise taxes collected by the Group within the course of its oil distribution operations. Excise taxes are deducted from sales in order to obtain the *Revenues from sales* indicator.

**(i) Sales of goods**

Revenues from sales are recognized when the significant risks and rewards of ownership have been passed to the buyer and when the amount is recoverable and can be reasonably measured.

Revenues from sales of crude oil, natural gas and coal are recorded upon transfer of title, according to the terms of the sales contracts.

Revenues from the production of crude oil and natural gas properties, in which the Group has an interest with other producers, are recognized based on actual volumes sold during the period. Any difference between volumes sold and entitlement volumes, based on the Group net working interest, is recognized as Crude oil and natural gas inventories or Other current assets or Other creditors and accrued liabilities, as appropriate.

Quantities delivered that represent production royalties and taxes, when paid in cash, are included in oil and gas sales, except for the United States and Canada.

Certain transactions within the trading activities (contracts involving quantities that are purchased from third parties then resold to third parties) are shown at their net value in sales.

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Exchanges of crude oil and petroleum products within normal trading activities do not generate any income and therefore these flows are shown at their net value in both the statement of income and the balance sheet.

### **(ii) Sales of services**

Revenues from services are recognized when the services have been rendered.

Revenues from gas transport are recognized when services are rendered. These revenues are based on the quantities transported and measured according to procedures defined in each service contract.

Shipping revenues and expenses from time-charter activities are recognized on a pro rata basis over a period that commences upon the unloading of the previous voyage and terminates upon the unloading of the current voyage. Shipping revenue recognition starts only when a charter has been agreed to by both the Group and the customer.

### **(iii) Solar Farm Development Projects**

SunPower develops and sells solar farm projects. This activity generally contains a property component (land ownership or an interest in land rights). The revenue associated with the development of these projects is recognized when the project-entities and land rights are irrevocably sold.

Revenues under contracts for construction of solar systems are recognized based on the progress of construction works, measured according to the percentage of costs incurred relative to total forecast costs.

### ***E) Share-based payments***

The Group may grant employees stock options, create employee share purchase plans and offer its employees the opportunity to subscribe to reserved capital increases. These employee benefits are recognized as expenses with a corresponding credit to shareholders' equity.

The expense is equal to the fair value of the instruments granted. The expense is recognized on a straight-line basis over the period in which the advantages are acquired.

The fair value of the options is calculated using the Black-Scholes model at the grant date.

For restricted share plans, the fair value is calculated using the market price at the grant date after deducting the expected distribution rate during the vesting period. The number of allocated equity instruments can be revised

during the vesting period in cases of non compliance with performance conditions, with the exception of those related to the market, or according to the rate of turnover of the beneficiaries.

The cost of employee-reserved capital increases is immediately expensed. A discount reduces the expense in order to account for the non-transferability of the shares awarded to the employees over a period of five years.

### ***F) Income taxes***

Income taxes disclosed in the statement of income include the current tax expenses (or income) and the deferred tax expenses (or income).

The Group uses the method whereby deferred income taxes are recorded based on the temporary differences between the carrying amounts of assets and liabilities recorded in the balance sheet and their tax bases, and on carry-forwards of unused tax losses and tax credits.

Deferred tax assets and liabilities are measured using the tax rates that have been enacted or substantially enacted at the balance sheet date. The tax rates used depend on the timing of reversals of temporary differences, tax losses and other tax credits. The effect of a change in tax rate is recognized either in the Consolidated Statement of Income or in shareholders' equity depending on the item it relates to.

Deferred tax assets are recognized when future recovery is probable.

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Asset retirement obligations and finance leases give rise to the recognition of assets and liabilities for accounting purposes as described in paragraph 1K. Leases and paragraph 1Q. Asset retirement obligations of this Note. Deferred income taxes resulting from temporary differences between the carrying amounts and tax bases of such assets and liabilities are recognized.

Deferred tax resulting from temporary differences between the carrying amounts of equity-method investments and their tax bases are recognized. The deferred tax calculation is based on the expected future tax effect (dividend distribution rate or tax rate on capital gains).

### *G) Earnings per share*

Earnings per share is calculated by dividing net income (Group share) by the weighted-average number of common shares outstanding during the period, excluding TOTAL shares held by TOTAL S.A. (Treasury shares) and TOTAL shares held by the Group subsidiaries which are deducted from consolidated shareholders' equity.



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Diluted earnings per share is calculated by dividing net income (Group share) by the fully-diluted weighted-average number of common shares outstanding during the period. Treasury shares held by the parent company, TOTAL S.A., and TOTAL shares held by the Group subsidiaries are deducted from consolidated shareholders' equity. These shares are not considered outstanding for purposes of this calculation which also takes into account the dilutive effect of stock options, share grants and capital increases with a subscription period closing after the end of the fiscal year.

The weighted-average number of fully-diluted shares is calculated in accordance with the treasury stock method provided for by IAS 33. The proceeds, which would be recovered in the event of an exercise of rights related to dilutive instruments, are presumed to be a share buyback at the average market price over the period. The number of shares thereby obtained leads to a reduction in the total number of shares that would result from the exercise of rights.

### ***H) Oil and gas exploration and producing properties***

The Group applies IFRS 6 – Exploration for and Evaluation of Mineral Resources. Oil and gas exploration and production properties and assets are accounted for in accordance with the successful efforts method.

#### **(i) Exploration costs**

Geological and geophysical costs, including seismic surveys for exploration purposes are expensed as incurred.

Mineral interests are capitalized as intangible assets when acquired. These acquired interests are tested for impairment on a regular basis, property-by-property, based on the results of the exploratory activity and the management's evaluation.

In the event of a discovery, the unproved mineral interests are transferred to proved mineral interests at their net book value as soon as proved reserves are booked.

Exploratory wells are tested for impairment on a well-by-well basis and accounted for as follows:

Costs of exploratory wells which result in proved reserves are capitalized and then depreciated using the unit-of-production method based on proved developed reserves;

Costs of dry wells and wells that have not found proved reserves are charged to expense;

Costs of exploratory wells are temporarily capitalized until a determination is made as to whether the well has found proved reserves if both of the following conditions are met:

The well has found a sufficient quantity of reserves to justify, if appropriate, its completion as a producing well, assuming that the required capital expenditures are made;

The Group is making sufficient progress assessing the reserves and the economic and operating viability of the project. This progress is evaluated on the basis of indicators such as whether additional exploratory works are under way or firmly planned (wells, seismic or significant studies), whether costs are being incurred for development studies and whether the Group is waiting for governmental or other third-party authorization of a proposed project, or availability of capacity on an existing transport or processing facility.

Costs of exploratory wells not meeting these conditions are charged to expense.

#### **(ii) Oil and Gas producing assets**

Development costs incurred for the drilling of development wells and for the construction of production facilities are capitalized, together with borrowing costs incurred during the period of construction and the present value of estimated future costs of asset retirement obligations. The depletion rate is usually equal to the ratio of oil and gas production for the period to proved developed reserves (unit-of-production method).

With respect to production sharing contracts, this computation is based on the portion of production and reserves assigned to the Group taking into account estimates based on the contractual clauses regarding the reimbursement of exploration, development and production costs (cost oil) as well as the sharing of

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hydrocarbon rights (profit oil).

Transportation assets are depreciated using the unit-of-production method based on throughput or by using the straight-line method whichever best reflects the duration of use of the economic life of the asset.

Proved mineral interests are depreciated using the unit-of-production method based on proved reserves.

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***I) Goodwill and other intangible assets excluding mineral interests***

Other intangible assets include goodwill, patents, trademarks, and lease rights.

Intangible assets are carried at cost, after deducting any accumulated depreciation and accumulated impairment losses.

Guidance for calculating goodwill is presented in Note 1 paragraph B to the Consolidated Financial Statements. Goodwill is not amortized but is tested for impairment annually or as soon as there is any indication of impairment (see Note 1 paragraph L to the Consolidated Financial Statements).

In equity affiliates, goodwill is included in the investment book value.

Other intangible assets (except goodwill) have a finite useful life and are amortized on a straight-line basis over between three to twenty years depending on the useful life of the assets.

**Research and development**

Research costs are charged to expense as incurred.

Development expenses are capitalized when the following can be demonstrated:

the technical feasibility of the project and the availability of the adequate resources for the completion of the intangible asset;

the ability of the asset to generate probable future economic benefits;

the ability to measure reliably the expenditures attributable to the asset; and

the feasibility and intention of the Group to complete the intangible asset and use or sell it.

Advertising costs are charged to expense as incurred.

***J) Other property, plant and equipment***

Other property, plant and equipment are carried at cost, after deducting any accumulated depreciation and accumulated impairment losses. This cost includes borrowing costs directly attributable to the acquisition or production of a qualifying asset incurred until assets are placed in service. Borrowing costs are capitalized as follows:

if the project benefits from a specific funding, the capitalization of borrowing costs is based on the borrowing rate;

if the project is financed by all the Group's debt, the capitalization of borrowing costs is based on the weighted average borrowing cost for the period.

Routine maintenance and repairs are charged to expense as incurred. The costs of major turnarounds of refineries and large petrochemical units are capitalized as incurred and depreciated over the period of time between two consecutive major turnarounds.

Other property, plant and equipment are depreciated using the straight-line method over their useful lives, which are as follows:

Furniture, office equipment, machinery and tools	3-12 years
Transportation equipment	5-20 years
Storage tanks and related equipment	10-15 years
Specialized complex installations and pipelines	10-30 years
Buildings	10-50 years

***K) Leases***

A finance lease transfers substantially all the risks and rewards incidental to ownership from the lessor to the lessee. These contracts are capitalized as assets at fair value or, if lower, at the present value of the minimum lease payments according to the contract. A corresponding financial debt is recognized as a financial liability. These assets are depreciated over the corresponding useful life used by the Group.

Leases that are not finance leases as defined above are recorded as operating leases.

Certain arrangements do not take the legal form of a lease but convey the right to use an asset or a group of assets in return for fixed payments. Such arrangements are accounted for as leases and are analyzed to determine whether they should be classified as operating leases or as finance leases.

***L) Impairment of long-lived assets***

The recoverable amounts of intangible assets and property, plant and equipment are tested for impairment as soon as any indication of impairment exists. This test is performed at least annually for goodwill.

The recoverable amount is the higher of the fair value (less costs to sell) or its value in use.

Assets are grouped into cash-generating units (or CGUs) and tested. A CGU is a homogeneous group of assets that generates cash inflows that are largely independent of the cash inflows from other groups of assets.

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The value in use of a CGU is determined by reference to the discounted expected future cash flows, based upon the management's expectation of future economic and operating conditions. When this value is less than the carrying amount of the CGU, an impairment loss is recorded. It is allocated first to goodwill in counterpart of Other expenses. These impairment losses are then allocated to Depreciation, depletion and amortization of tangible assets and mineral interests for property, plant and mineral interests and to Other expenses for other intangible assets.

Impairment losses recognized in prior periods can be reversed up to the original carrying amount, had the impairment loss not been recognized. Impairment losses recognized for goodwill cannot be reversed.

### ***M) Financial assets and liabilities***

Financial assets and liabilities are financial loans and receivables, investments in non-consolidated companies, publicly traded equity securities, derivatives instruments and current and non-current financial liabilities.

The accounting treatment of these financial assets and liabilities is as follows:

#### **(i) Loans and receivables**

Financial loans and receivables are recognized at amortized cost. They are tested for impairment, by comparing the carrying amount of the assets to estimates of the discounted future recoverable cash flows. These tests are conducted as soon as there is any evidence that their fair value is less than their carrying amount, and at least annually. Any impairment loss is recorded in the statement of income.

#### **(ii) Other investments**

These assets are classified as financial assets available for sale and therefore measured at their fair value. For listed securities, this fair value is equal to the market price. For unlisted securities, if the fair value is not reliably determinable, the securities are recorded at their historical value. Changes in fair value are recorded in other comprehensive income. If there is any evidence of a significant or long-lasting impairment loss, a loss is recorded in the statement of income. This impairment is irreversible.

#### **(iii) Derivative instruments**

The Group uses derivative instruments to manage its exposure to risks of changes in interest rates, foreign exchange rates and commodity prices. Changes in fair

value of derivative instruments are recognized in the statement of income or in other comprehensive income and are recognized in the balance sheet in the accounts corresponding to their nature, according to the risk management strategy described in Note 31 to the Consolidated Financial Statements. The derivative instruments used by the Group are the following:

##### *Cash management*

Financial instruments used for cash management purposes are part of a hedging strategy of currency and interest rate risks within global limits set by the Group and are considered to be used for transactions (held for trading). Changes in fair value are systematically recorded in the statement of income. The balance sheet value of those instruments is included in Current financial assets or Other current financial liabilities.

##### *Long-term financing*

When an external long-term financing is set up, specifically to finance subsidiaries, and when this financing involves currency and interest rate derivatives, these instruments are qualified as:

- i. Fair value hedge of the interest rate risk on the external debt and of the currency risk of the loans to subsidiaries. Changes in fair value of derivatives are recognized in the statement of income as are changes in fair value of underlying financial debts and loans to subsidiaries.

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The fair value of those hedging instruments of long-term financing is included in assets under Hedging instruments on non-current financial debt or in liabilities under Non-current financial debt for the non-current portion. The current portion (less than one year) is accounted for in Current financial assets or Other current financial liabilities .

In case of the anticipated termination of derivative instruments accounted for as fair value hedges, the amount paid or received is recognized in the statement of income and:

If this termination is due to an early cancellation of the hedged items, the adjustment previously recorded as revaluation of those hedged items is also recognized in the statement of income;

If the hedged items remain in the balance sheet, the adjustment previously recorded as a revaluation of those hedged items is spread over the remaining life of those items.

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- ii. Cash flow hedge of the currency risk of the external debt. Changes in fair value are recorded in Other comprehensive Income for the effective portion of the hedging and in the statement of income for the ineffective portion of the hedging. Amounts recorded in equity are transferred to the income statement when the hedged transaction affects profit or loss.

The fair value of those hedging instruments of long-term financing is included in assets under Hedging instruments on non-current financial debt or in liabilities under Non-current financial debt for the non-current portion. The current portion (less than one year) is accounted for in Current financial assets or Other current financial liabilities .

If the hedging instrument expires, is sold or terminated by anticipation, gains or losses previously recognized in equity remain in equity. Amounts are recycled to the income statement only when the hedged transaction affects profit or loss.

### *Foreign subsidiaries' equity hedge*

Certain financial instruments hedge against risks related to the equity of foreign subsidiaries whose functional currency is not the euro (mainly the dollar). These instruments qualify as net investment hedges and changes in fair value are recorded in other comprehensive income for the effective portion of the hedging and in the statement of income for the ineffective portion of the hedging. Gains or losses on hedging instruments previously recorded in equity, are reclassified to the statement of income in the same period as the total or partial disposal of the foreign activity.

The fair value of these instruments is recorded under Current financial assets or Other current financial liabilities .

### *Financial instruments related to commodity contracts*

Financial instruments related to commodity contracts, including crude oil, petroleum products, gas, power and coal purchase/sales contracts within the trading activities, together with the commodity contract derivative instruments such as energy contracts and forward freight agreements, are used to adjust the Group's exposure to price fluctuations within global trading limits. According to the industry practice, these instruments are considered as held for trading.

Changes in fair value are recorded in the statement of income. The fair value of these instruments is recorded in Other current assets or Other creditors and accrued liabilities depending on whether they are assets or liabilities.

Detailed information about derivatives positions is disclosed in Notes 20, 28, 29, 30 and 31 to the Consolidated Financial Statements.

### **(iv) Current and non-current financial liabilities**

Current and non-current financial liabilities (excluding derivatives) are recognized at amortized cost, except those for which hedge accounting can be applied as described in the previous paragraph.

### **(v) Fair value of financial instruments**

Fair values are estimated for the majority of the Group's financial instruments, with the exception of publicly traded equity securities and marketable securities for which the market price is used.

Estimations of fair value, which are based on principles such as discounting future cash flows to present value, must be weighted by the fact that the value of a financial instrument at a given time may be influenced by the market environment (liquidity especially), and also the fact that subsequent changes in interest rates and exchange rates are not taken into account.

As a consequence, the use of different estimates, methodologies and assumptions could have a material effect on the estimated fair value amounts.

The methods used are as follows:

### *Financial debts, swaps*

The market value of swaps and of bonds that are hedged by those swaps has been determined on an individual basis by discounting future cash flows with the zero coupon interest rate curves existing at year-end.

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### *Financial instruments related to commodity contracts*

The valuation methodology is to mark-to-market all open positions for both physical and paper transactions. The valuations are determined on a daily basis using observable market data based on organized and over the counter (OTC) markets. In particular cases when market data is not directly available, the valuations are derived from observable data such as arbitrages, freight or spreads and market corroboration. For valuation of risks which are the

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result of a calculation, such as options for example, commonly known models are used to compute the fair value.

### *Other financial instruments*

The fair value of the interest rate swaps and of FRA s (Forward Rate Agreements) are calculated by discounting future cash flows on the basis of zero coupon interest rate curves existing at year-end after adjustment for interest accrued but unpaid.

Forward exchange contracts and currency swaps are valued on the basis of a comparison of the negotiated forward rates with the rates in effect on the financial markets at year-end for similar maturities.

Exchange options are valued based on the Garman-Kohlhagen model including market quotations at year-end.

### *Fair value hierarchy*

IFRS 7 Financial instruments: disclosures established a fair value hierarchy for financial instruments and proposes the following three-level classification:

level 1: quotations for assets and liabilities (identical to the ones that are being valued) obtained at the valuation date on an active market to which the entity has access;

level 2: the entry data is observable data but does not correspond to quotations for identical assets or liabilities;

level 3: the entry data is not observable data. For example: the data comes from extrapolation. This level applies when there is no market or observable data and the company has to use its own hypotheses to estimate the data that other market players would have used to determine the fair value of the asset.

Fair value hierarchy is disclosed in Notes 29 and 30 to the Consolidated Financial Statements.

### **(vi) Commitments to purchase shares held by non-controlling interests (put options written on minority interests)**

Put options granted to non-controlling-interest shareholders are initially recognized as financial liabilities at the present value of the exercise price of the options with a corresponding reduction in shareholders' equity. The financial liability is subsequently measured at fair value at each balance sheet date in accordance with contractual clauses and any variation is recorded in the statement of income (cost of debt).

### ***N) Inventories***

Inventories are measured in the Consolidated Financial Statements at the lower of historical cost or market value. Costs for petroleum and petrochemical products are determined according to the FIFO (First-In, First-Out) method and other inventories are measured using the weighted-average cost method.

In addition stocks held for trading are measured at fair value less costs of sale.

### **Refining & Chemicals**

Petroleum product inventories are mainly comprised of crude oil and refined products. Refined products principally consist of gasoline, kerosene, diesel, fuel oil and heating oil produced by the Group's refineries. The turnover of petroleum products does not exceed more than two months on average.

Crude oil costs include raw material and receiving costs. Refining costs principally include crude oil costs, production costs (energy, labor, depreciation of producing assets) and an allocation of production overheads (taxes, maintenance, insurance, etc.).

Costs of chemical product inventories consist of raw material costs, direct labor costs and an allocation of production overheads. Start-up costs, general administrative costs and financing costs are excluded from the cost price of refined and chemicals products.

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### **Marketing & Services**

The costs of refined products include mainly crude oil costs, production costs (energy, labor, depreciation of producing assets) and an allocation of production overheads (taxes, maintenance, insurance, etc.).

Start-up costs, general administrative costs and financing costs are excluded from the cost price of refined products.

Product inventories purchased from entities external to the Group are valued at their purchase cost plus primary costs of transport.

### *O) Treasury shares*

Treasury shares of the parent company held by its subsidiaries or itself are deducted from consolidated shareholders' equity. Gains or losses on sales of treasury shares are excluded from the determination of net income and are recognized in shareholders' equity.

### *P) Provisions and other non-current liabilities*

A provision is recognized when the Group has a present obligation (legal or constructive) as a result of a past event

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for which it is probable that an outflow of resources will be required and when a reliable estimate can be made regarding the amount of the obligation. The amount of the liability corresponds to the best possible estimate.

Provisions and non-current liabilities are comprised of liabilities for which the amount and the timing are uncertain. They arise from environmental risks, legal and tax risks, litigation and other risks.

### ***Q) Asset retirement obligations***

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the useful life of this asset.

An entity is required to measure changes in the liability for an asset retirement obligation due to the passage of time (accretion) by applying a risk-free discount rate to the amount of the liability. The increase of the provision due to the passage of time is recognized as Other financial expense .

### ***R) Employee benefits***

In accordance with the laws and practices of each country, the Group participates in employee benefit plans offering retirement, death and disability, healthcare and special termination benefits. These plans provide benefits based on various factors such as length of service, salaries, and contributions made to the governmental bodies responsible for the payment of benefits.

These plans can be either defined contribution or defined benefit pension plans and may be entirely or partially funded with investments made in various non-Group instruments such as mutual funds, insurance contracts, and other instruments.

For defined contribution plans, expenses correspond to the contributions paid.

Defined benefit obligations are determined according to the Projected Unit Method. Actuarial gains and losses may arise from differences between actuarial valuation and projected commitments (depending on new calculations or assumptions) and between projected and actual return of plan assets. Such gains and losses are recognized in the statement of comprehensive income, with no possibility to subsequently recycle them to the income statement.

The past service cost is recorded immediately in the statement of income, whether vested or unvested.

The net periodic pension cost is recognized under Other operating expenses .

### ***S) Consolidated Statement of Cash Flows***

The Consolidated Statement of Cash Flows prepared in foreign currencies has been translated into dollars using the exchange rate on the transaction date or the average exchange rate for the period. Currency translation differences arising from the translation of monetary assets and liabilities denominated in foreign currency into dollars using the closing exchange rates are shown in the Consolidated Statement of Cash Flows under Effect of exchange rates . Therefore, the Consolidated Statement of Cash Flows will not agree with the figures derived from the Consolidated Balance Sheet.

### **Cash and cash equivalents**

Cash and cash equivalents are comprised of cash on hand and highly liquid short-term investments that are easily convertible into known amounts of cash and are subject to insignificant risks of changes in value.

Investments with maturity greater than three months and less than twelve months are shown under Current financial assets .

Changes in current financial assets and liabilities are included in the financing activities section of the Consolidated Statement of Cash Flows.

### **Non-current financial debt**

Changes in non-current financial debt are presented as the net variation to reflect significant changes mainly related to revolving credit agreements.

*T) Carbon dioxide emission rights*

In the absence of a current IFRS standard or interpretation on accounting for emission rights of carbon dioxide, the following principles are applied:

Emission rights are managed as a cost of production and as such are recognized in inventories:

Emission rights allocated for free are booked in inventories with a nil carrying amount,

Purchased emission rights are booked at acquisition cost,

Sales or annual restorations of emission rights consist of decreases in inventories recognized based on a weighted average cost,

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If the carrying amount of inventories at closing date is higher than the market value, an impairment loss is recorded.

At each closing, a provision is recorded in order to materialize the obligation to surrender emission rights related to the emissions of the period. This provision is calculated based on estimated emissions of the period, valued at weighted average cost of the inventories at the end of the period. It is reversed when the emission rights are surrendered.

If emission rights to be surrendered at the end of the compliance period are higher than emission rights (allocated and purchased) recorded in inventories, the shortage is accounted for as a liability at market value.

Forward transactions are recognized at their fair market value in the balance sheet. Changes in the fair value of such forward transactions are recognized in the statement of income.

### ***U) Energy savings certificates***

In the absence of current IFRS standards or interpretations on accounting for energy savings certificates, the following principles are applied:

If the obligations linked to the sales of energy are greater than the number of ESC s held then a liability is recorded. These liabilities are valued based on the price of the last transactions,

In the event that the number of ESC s held exceeds the obligation at the balance sheet date this is accounted for as inventory,

ESC inventories are valued at weighted average cost (acquisition cost for those ESC s acquired or cost incurred for those ESC s generated internally). If the carrying value of the inventory of certificates at the balance sheet date is higher than the market value, an impairment loss is recorded in income.

### ***V) Non-current assets held for sale and discontinued operations***

Pursuant to IFRS 5 Non-current assets held for sale and discontinued operations , assets and liabilities of affiliates that are held for sale are presented separately on the face of the balance sheet. Depreciation of assets ceases from the date of classification in Non-current assets held for sale .

Net income from discontinued operations is presented separately on the face of the statement of income. Therefore, the notes to the Consolidated Financial Statements related to the statement of income only refer to continuing operations.

A discontinued operation is a component of the Group for which cash flows are independent. It represents a major line of business or geographical area of operations which has been disposed of or is currently being held for sale.

### ***W) New accounting texts not yet in effect***

The standards or interpretations published respectively by the International Accounting Standards Board (IASB) and the International Financial Reporting Interpretations Committee (IFRIC) which were not yet in effect at December 31, 2014, are as follows:

**Standards not yet adopted by the European Union at December 31, 2014**

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In May 2014, the IASB issued standard IFRS 15 that includes requirements for the recognition of revenue from contracts with customers. The standard is applicable for annual periods starting on or after January 1, 2017. The impacts of the application of this standard are under review.

In July 2014, the IASB issued standard IFRS 9 Financial Instruments that includes requirements for the recognition and measurement of financial instruments. This standard brings together three phases: classification and measurement, impairment of financial assets and hedge accounting excluding macro-hedging. The standard is applicable for annual periods starting on or after January 1, 2018. The impacts of the application of this standard are under review.

### **2) Main indicators information by business segment**

Performance indicators excluding the adjustment items, such as adjusted operating income, adjusted net operating income, and adjusted net income are meant to facilitate the analysis of the financial performance and the comparison of income between periods.

#### **Adjustment items**

The detail of these adjustment items is presented in Note 4 to the Consolidated Financial Statements.

Adjustment items include:

##### **(i) Special items**

Due to their unusual nature or particular significance, certain transactions qualified as special items are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances,

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transactions such as restructuring costs or assets disposals, which are not considered to be representative of the normal course of business, may be qualified as special items although they may have occurred within prior years or are likely to occur again within the coming years.

### **(ii) The inventory valuation effect**

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its competitors.

In the replacement cost method, which approximates the LIFO (Last-In, First-Out) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end prices differential between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results according to the FIFO (First-In, First-Out) and the replacement cost.

### **(iii) Effect of changes in fair value**

The effect of changes in fair value presented as adjustment items reflects for some transactions differences between internal measure of performance used by TOTAL's management and the accounting for these transactions under IFRS.

IFRS requires that trading inventories be recorded at their fair value using period end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices.

Furthermore, TOTAL, in its trading activities, enters into storage contracts, which future effects are recorded at fair value in Group's internal economic performance. IFRS precludes recognition of this fair value effect.

## **Main indicators**

### **(i) Operating income (measure used to evaluate operating performance)**

Revenue from sales after deducting cost of goods sold and inventory variations, other operating expenses, exploration expenses and depreciation, depletion, and amortization.

Operating income excludes the amortization of intangible assets other than mineral interests, currency translation adjustments and gains or losses on the disposal of assets.

### **(ii) Net operating income (measure used to evaluate the return on capital employed)**

Operating income after taking into account the amortization of intangible assets other than mineral interests, currency translation adjustments, gains or losses on the disposal of assets, as well as all other income and expenses related to capital employed (dividends from non-consolidated companies, equity in income of affiliates, capitalized interest expenses), and after income taxes applicable to the above.

The only income and expense not included in net operating income but included in net income are interest expenses related to net financial debt, after applicable income taxes (net cost of net debt) and non-controlling interests.

### **(iii) Adjusted income**

Operating income, net operating income, or net income excluding the effect of adjustment items described above.

### **(iv) Fully-diluted adjusted earnings per share**

Adjusted net income divided by the fully-diluted weighted-average number of common shares.

(v) **Capital employed**

Non-current assets and working capital, at replacement cost, net of deferred income taxes and non-current liabilities.

(vi) **ROACE (Return on Average Capital Employed)**

Ratio of adjusted net operating income to average capital employed between the beginning and the end of the period.

(vii) **ROE (Return on Equity)**

Ratio of adjusted consolidated net income to average adjusted shareholders' equity (after distribution) between the beginning and the end of the period.

(viii) **Net debt**

Non-current debt, including current portion, current borrowings, other current financial liabilities less cash and cash equivalents and other current financial assets.



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### **3) Changes in the Group structure, main acquisitions and divestments**

During 2014, 2013, and 2012, the main changes in the Group structure and main acquisitions and divestments were as follows:

#### **2014**

##### **Upstream**

TOTAL finalized in March 2014 the sale to Sonangol E&P of its interest in block 15/06 in Angola.

TOTAL finalized in March 2014 the acquisition from InterOil Corporation of a 40.1% interest (before possible entry by the State) in block PRL 15 containing the gas field Elk-Antelope in Papua New Guinea for an amount of \$429 million, paid on April 2, 2014.

On February 27, 2014, TOTAL floated GazTransport et Technigaz S.A. (GTT), an engineering company specializing in the design of cryogenic membranes for the transport and storage of LNG. With this quotation on Euronext Paris, TOTAL reduced its interest in the equity of the company from 30.0% to 10.4%. The listing was completed at a price of 46 per share, valuing 100% of the equity of the company on the listing date at 1.7 billion. Finally, in December TOTAL signed a final agreement for the acquisition by Temasek its entire remaining interest in GTT. The total of these two transactions amounted to more than \$650 million.

TOTAL finalized during 2014 the acquisition of an additional 1.28% interest in Novatek for an amount of \$434 million, bringing TOTAL's overall interest in Novatek to 18.24% as at December 31, 2014. Since July 18, 2014 the Group has not acquired any additional shares of Novatek.

TOTAL finalized in August 2014 the sale of its 10% interest in the Shah Deniz field and the South Caucasus Pipeline to TPAO, the Turkish state-owned exploration and production company for an amount of \$1,513 million. This sale generated a gain on disposal of \$580 million after tax.

TOTAL finalized in October 2014 the sale of its 25% interest in the Cardinal Gas Services LLC, a company specializing in the gathering and transport of gas in Ohio's Utica shale play area for an amount of \$449 million.

Information relating to sales in progress is presented in accordance with IFRS 5 Non-current assets held for sale and discontinued operations in note 34.

#### **2013**

##### **Upstream**

TOTAL finalized in February 2013 the acquisition of an additional 6% interest in the Ichthys liquefied natural gas (LNG) project from its partner INPEX. TOTAL's overall equity stake in the Ichthys LNG project increased from 24% to 30%.

TOTAL finalized in February 2013 the sale to INPEX of a 9.99% indirect interest in offshore Angola Block 14.

On March 27, 2013, TOTAL entered into an agreement for the sale to Suncor Energy Inc. of its 49% interest in the Voyageur upgrader project, which is located in the Canadian province of Alberta and intended to upgrade bitumen from the Fort Hills and Joslyn mines. The transaction amounted to \$506 million. The mining development projects of Fort Hills and Joslyn continue according to the production evacuation logistics studies jointly conducted with Suncor. The sale entailed a net loss of \$1,646 million.

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TOTAL finalized in June 2013 the sale of a 25% interest in the Tempa Rossa field in Italy to Mitsui.

TOTAL finalized in July 2013 the sale of 100% of Transport et Infrastructures Gaz France (TIGF) to a consortium comprising Snam, EDF and GIC (Government of Singapore Investment Corporation) for an amount of 1,558 million (\$2,052 million), net of cash sold.

TOTAL finalized in September 2013 the sale of its Upstream interests in Trinidad & Tobago to The National Gas Company of Trinidad & Tobago for an amount of \$318 million, net of cash sold.

TOTAL finalized in December 2013 the acquisition by Qatar Petroleum International of 15% of the capital of Total E&P Congo through a capital increase of \$1,627 million.

TOTAL finalized during 2013 the acquisition of an additional 1.62% interest in Novatek for an amount of \$587 million, bringing TOTAL's overall interest in Novatek to 16.96% as at December 31, 2013.

In October 2013, a consortium in which TOTAL holds a 20% interest was awarded a production

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sharing contract for 35 years to develop the Libra oil field in Brazil. TOTAL paid a signing bonus of 3,000 million Brazilian Real (approximately \$1,301 million).

### **Refining & Chemicals**

TOTAL finalized in June 2013 the sale of its fertilizing businesses in Europe.

2012

### **Upstream**

TOTAL finalized in February 2012 the acquisition in Uganda of a one-third interest in Blocks 1, 2 and 3A held by Tullow Oil plc for \$1,487 million, entirely consisting of mineral interests. TOTAL became an equal partner with Tullow and CNOOC in the blocks, each with a one-third interest and each being an operator of one of the blocks. TOTAL is the operator of Block 1.

TOTAL finalized during 2012 the acquisition of an additional 1.25% interest in Novatek for an amount of \$480 million, increasing TOTAL's overall interest in Novatek to 15.34% as of December 31, 2012.

TOTAL finalized in October 2012 the sale of its interest in the Cusiana field as well as a participation in OAM and ODC pipelines in Colombia to Sinochem, for an amount of \$409 million, net of cash sold.

### **Holding**

During 2012, TOTAL gradually sold its remaining interest in Sanofi, generating a net capital gain of \$438 million after tax. As at the 31 December 2012 the Group retained no further interest in the capital of Sanofi.

## **4) Business segment information**

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TOTAL and which is reviewed by the main operational decision-making body of the Group, namely the Executive Committee.

The operational profit and assets are broken down by business segment prior to the consolidation and inter-segment adjustments.

Sales prices between business segments approximate market prices.

The Group's activities are divided into three business segments as follows:

an Upstream segment including, alongside the activities of the Exploration & Production of hydrocarbons, the activities of Gas & Power;

a Refining & Chemicals segment constituting a major industrial hub comprising the activities of refining, petrochemicals and specialty chemicals. This segment also includes the activities of oil Trading & Shipping; and

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a Marketing & Services segment including the global activities of supply and marketing in the field of petroleum products as well as the activity of New Energies.

In addition the Corporate segment includes holdings operating and financial activities.

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**Table of Contents***A) Information by business segment*

For the year ended December 31, 2014						
(M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	23,484	106,124	106,509	5		236,122
Intersegment sales	29,183	44,950	1,615	236	(75,984)	
Excise taxes		(4,850)	(19,254)			(24,104)
<b>Revenues from sales</b>	<b>52,667</b>	<b>146,224</b>	<b>88,870</b>	<b>241</b>	<b>(75,984)</b>	<b>212,018</b>
Operating expenses	(26,235)	(145,014)	(86,931)	(1,092)	75,984	(183,288)
Depreciation, depletion and amortization of tangible assets and mineral interests	(15,938)	(2,901)	(781)	(36)		(19,656)
<b>Operating income</b>	<b>10,494</b>	<b>(1,691)</b>	<b>1,158</b>	<b>(887)</b>		<b>9,074</b>
Equity in net income (loss) of affiliates and other items	4,302	90	(140)	178		4,430
Tax on net operating income	(8,799)	391	(344)	(8)		(8,760)
<b>Net operating income</b>	<b>5,997</b>	<b>(1,210)</b>	<b>674</b>	<b>(717)</b>		<b>4,744</b>
Net cost of net debt						(494)
Non-controlling interests						(6)
<b>Net income</b>						<b>4,244</b>

For the year ended December 31, 2014						
(adjustments <sup>(a)</sup> ) (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	31					31
Intersegment sales						
Excise taxes						
<b>Revenues from sales</b>	<b>31</b>					<b>31</b>
Operating expenses	(164)	(2,980)	(551)			(3,695)
Depreciation, depletion and amortization of tangible assets and mineral interests	(6,529)	(1,450)				(7,979)
<b>Operating income<sup>(b)</sup></b>	<b>(6,662)</b>	<b>(4,430)</b>	<b>(551)</b>			<b>(11,643)</b>
Equity in net income (loss) of affiliates and other items	883	(282)	(203)			398
Tax on net operating income	1,272	1,013	174			2,459
<b>Net operating income<sup>(b)</sup></b>	<b>(4,507)</b>	<b>(3,699)</b>	<b>(580)</b>			<b>(8,786)</b>
Net cost of net debt						
Non-controlling interests						193
<b>Net income</b>						<b>(8,593)</b>

<sup>(a)</sup> Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

<sup>(b)</sup> Of which inventory valuation effect

On operating income

(2,944) (525)

On net operating income

(2,114) (384)

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For the year ended December 31, 2014 (adjusted) (M\$) <sup>(a)</sup>		Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	23,453	106,124	106,509	5		236,091
Intersegment sales	29,183	44,950	1,615	236	(75,984)	
Excise taxes		(4,850)	(19,254)			(24,104)
<b>Revenues from sales</b>	<b>52,636</b>	<b>146,224</b>	<b>88,870</b>	<b>241</b>	<b>(75,984)</b>	<b>211,987</b>
Operating expenses	(26,071)	(142,034)	(86,380)	(1,092)	75,984	(179,593)
Depreciation, depletion and amortization of tangible assets and mineral interests	(9,409)	(1,451)	(781)	(36)		(11,677)
<b>Adjusted operating income</b>	<b>17,156</b>	<b>2,739</b>	<b>1,709</b>	<b>(887)</b>		<b>20,717</b>
Equity in net income (loss) of affiliates and other items	3,419	372	63	178		4,032
Tax on net operating income	(10,071)	(622)	(518)	(8)		(11,219)
<b>Adjusted net operating income</b>	<b>10,504</b>	<b>2,489</b>	<b>1,254</b>	<b>(717)</b>		<b>13,530</b>
Net cost of net debt						(494)
Non-controlling interests						(199)
<b>Adjusted net income</b>						<b>12,837</b>
<b>Adjusted fully-diluted earnings per share (\$)</b>						<b>5.63</b>

<sup>(a)</sup> Except for earnings per share.

For the year ended December 31, 2014 (M\$)		Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	26,520	2,022	1,818	149		30,509
Total divestments	5,764	192	163	71		6,190
Cash flow from operating activities	16,666	6,302	2,721	(81)		25,608
<b>Balance sheet as of December 31, 2014</b>						
Property, plant and equipment, intangible assets, net	105,273	9,512	6,443	330		121,558
Investments & loans in equity affiliates	14,921	3,516	837			19,274
Other non-current assets	6,711	959	1,849	151		9,670
Working capital	2,015	4,041	2,141	(2,386)		5,811
Provisions and other non-current liabilities	(30,385)	(4,290)	(2,097)	(341)		(37,113)
Assets and liabilities classified as held for sale	1,962	1,032	91			3,085
<b>Capital Employed (balance sheet)</b>	<b>100,497</b>	<b>14,770</b>	<b>9,264</b>	<b>(2,246)</b>		<b>122,285</b>
Less inventory valuation effect		(1,319)	(439)	(1)		(1,759)
<b>Capital Employed</b>						
<b>(Business segment information)</b>	<b>100,497</b>	<b>13,451</b>	<b>8,825</b>	<b>(2,247)</b>		<b>120,526</b>
<b>ROACE as a percentage</b>	<b>11%</b>	<b>15%</b>	<b>13%</b>			<b>11%</b>

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For the year ended December 31, 2013						
(M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	26,367	114,483	110,873	2		251,725
Intersegment sales	37,650	52,275	2,159	177	(92,261)	
Excise taxes		(4,814)	(18,942)			(23,756)
<b>Revenues from sales</b>	<b>64,017</b>	<b>161,944</b>	<b>94,090</b>	<b>179</b>	<b>(92,261)</b>	<b>227,969</b>
Operating expenses	(31,875)	(160,031)	(91,343)	(794)	92,261	(191,782)
Depreciation, depletion and amortization of tangible assets and mineral interests	(9,484)	(1,736)	(733)	(41)		(11,994)
<b>Operating income</b>	<b>22,658</b>	<b>177</b>	<b>2,014</b>	<b>(656)</b>		<b>24,193</b>
Equity in net income (loss) of affiliates and other items	2,688	181	55	(25)		2,899
Tax on net operating income	(13,706)	(612)	(560)	(29)		(14,907)
<b>Net operating income</b>	<b>11,640</b>	<b>(254)</b>	<b>1,509</b>	<b>(710)</b>		<b>12,185</b>
Net cost of net debt						(664)
Non-controlling interests						(293)
<b>Net income</b>						<b>11,228</b>

For the year ended December 31, 2013						
(adjustments <sup>(a)</sup> ) (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	(74)					(74)
Intersegment sales						
Excise taxes						
<b>Revenues from sales</b>	<b>(74)</b>					<b>(74)</b>
Operating expenses	(113)	(1,405)	(134)			(1,652)
Depreciation, depletion and amortization of tangible assets and mineral interests	(855)	(184)	(4)			(1,043)
<b>Operating income<sup>(b)</sup></b>	<b>(1,042)</b>	<b>(1,589)</b>	<b>(138)</b>			<b>(2,769)</b>
Equity in net income (loss) of affiliates and other items	(305)	(268)	4	(34)		(603)
Tax on net operating income	537	(254)	89	(45)		327
<b>Net operating income<sup>(b)</sup></b>	<b>(810)</b>	<b>(2,111)</b>	<b>(45)</b>	<b>(79)</b>		<b>(3,045)</b>
Net cost of net debt						
Non-controlling interests						(19)
<b>Net income</b>						<b>(3,064)</b>

<sup>(a)</sup> Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

<sup>(b)</sup> Of which inventory valuation effect

On operating income

(978) (87)

On net operating income

(656) (63)

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For the year ended December 31, 2013 (adjusted) (M\$) <sup>(a)</sup>	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	26,441	114,483	110,873	2		251,799
Intersegment sales	37,650	52,275	2,159	177	(92,261)	
Excise taxes		(4,814)	(18,942)			(23,756)
<b>Revenues from sales</b>	<b>64,091</b>	<b>161,944</b>	<b>94,090</b>	<b>179</b>	<b>(92,261)</b>	<b>228,043</b>
Operating expenses	(31,762)	(158,626)	(91,209)	(794)	92,261	(190,130)
Depreciation, depletion and amortization of tangible assets and mineral interests	(8,629)	(1,552)	(729)	(41)		(10,951)
<b>Adjusted operating income</b>	<b>23,700</b>	<b>1,766</b>	<b>2,152</b>	<b>(656)</b>		<b>26,962</b>
Equity in net income (loss) of affiliates and other items	2,993	449	51	9		3,502
Tax on net operating income	(14,243)	(358)	(649)	16		(15,234)
<b>Adjusted net operating income</b>	<b>12,450</b>	<b>1,857</b>	<b>1,554</b>	<b>(631)</b>		<b>15,230</b>
Net cost of net debt						(664)
Non-controlling interests						(274)
<b>Adjusted net income</b>						<b>14,292</b>
<b>Adjusted fully-diluted earnings per share (\$)</b>						<b>6.29</b>

<sup>(a)</sup> Except for earnings per share.

For the year ended December 31, 2013 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	29,750	2,708	1,814	159		34,431
Total divestments	5,786	365	186	62		6,399
Cash flow from operating activities	21,857	4,260	2,557	(161)		28,513
<b>Balance sheet as of December 31, 2013</b>						
Property, plant and equipment, intangible assets, net	103,667	12,407	6,441	360		122,875
Investments & loans in equity affiliates	15,862	3,542	1,013			20,417
Other non-current assets	5,691	1,427	2,014	778		9,910
Working capital	(327)	10,458	3,779	(2,729)		11,181
Provisions and other non-current liabilities	(31,574)	(4,437)	(2,303)	(1,288)		(39,602)
Assets and liabilities classified as held for sale	2,210					2,210
<b>Capital Employed (balance sheet)</b>	<b>95,529</b>	<b>23,397</b>	<b>10,944</b>	<b>(2,879)</b>		<b>126,991</b>
Less inventory valuation effect		(3,645)	(893)	(2)		(4,540)
<b>Capital Employed</b>	<b>95,529</b>	<b>19,752</b>	<b>10,051</b>	<b>(2,881)</b>		<b>122,451</b>
<b>(Business segment information)</b>						
<b>ROACE as a percentage</b>	<b>14%</b>	<b>9%</b>	<b>16%</b>			<b>13%</b>



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For the year ended December 31, 2012 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	28,449	117,067	111,281	240		257,037
Intersegment sales	40,498	57,134	970	256	(98,858)	
Excise taxes		(4,616)	(18,205)			(22,821)
<b>Revenues from sales</b>	<b>68,947</b>	<b>169,585</b>	<b>94,046</b>	<b>496</b>	<b>(98,858)</b>	<b>234,216</b>
Operating expenses	(33,361)	(166,379)	(91,907)	(1,249)	98,858	(194,038)
Depreciation, depletion and amortization of tangible assets and mineral interests	(9,555)	(1,856)	(780)	(46)		(12,237)
<b>Operating income</b>	<b>26,031</b>	<b>1,350</b>	<b>1,359</b>	<b>(799)</b>		<b>27,941</b>
Equity in net income (loss) of affiliates and other items	3,005	271	(252)	353		3,377
Tax on net operating income	(15,879)	(337)	(488)	(163)		(16,867)
<b>Net operating income</b>	<b>13,157</b>	<b>1,284</b>	<b>619</b>	<b>(609)</b>		<b>14,451</b>
Net cost of net debt						(615)
Non-controlling interests						(188)
<b>Net income</b>						<b>13,648</b>

For the year ended December 31, 2012 (adjustments) <sup>(a)</sup> (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	(12)					(12)
Intersegment sales						
Excise taxes						
<b>Revenues from sales</b>	<b>(12)</b>					<b>(12)</b>
Operating expenses	(752)	(257)	(294)	(115)		(1,418)
Depreciation, depletion and amortization of tangible assets and mineral interests	(1,538)	(266)	(87)			(1,891)
<b>Operating income<sup>(b)</sup></b>	<b>(2,302)</b>	<b>(523)</b>	<b>(381)</b>	<b>(115)</b>		<b>(3,321)</b>
Equity in net income (loss) of affiliates and other items	326	(51)	(154)	188		309
Tax on net operating income	817	90	85	(139)		853
<b>Net operating income<sup>(b)</sup></b>	<b>(1,159)</b>	<b>(484)</b>	<b>(450)</b>	<b>(66)</b>		<b>(2,159)</b>
Net cost of net debt						35
Non-controlling interests						
<b>Net income</b>						<b>(2,124)</b>

<sup>(a)</sup> Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

<sup>(b)</sup> Of which inventory valuation effect

On operating income (230) (71)

On net operating income (149) (50)

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For the year ended December 31, 2012 (adjusted) (M\$) <sup>(a)</sup>	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	28,461	117,067	111,281	240		257,049
Intersegment sales	40,498	57,134	970	256	(98,858)	
Excise taxes		(4,616)	(18,205)			(22,821)
<b>Revenues from sales</b>	<b>68,959</b>	<b>169,585</b>	<b>94,046</b>	<b>496</b>	<b>(98,858)</b>	<b>234,228</b>
Operating expenses	(32,609)	(166,122)	(91,613)	(1,134)	98,858	(192,620)
Depreciation, depletion and amortization of tangible assets and mineral interests	(8,017)	(1,590)	(693)	(46)		(10,346)
<b>Adjusted operating income</b>	<b>28,333</b>	<b>1,873</b>	<b>1,740</b>	<b>(684)</b>		<b>31,262</b>
Equity in net income (loss) of affiliates and other items	2,679	322	(98)	165		3,068
Tax on net operating income	(16,696)	(427)	(573)	(24)		(17,720)
<b>Adjusted net operating income</b>	<b>14,316</b>	<b>1,768</b>	<b>1,069</b>	<b>(543)</b>		<b>16,610</b>
Net cost of net debt						(615)
Non-controlling interests						(223)
<b>Adjusted net income</b>						<b>15,772</b>
<b>Adjusted fully-diluted earnings per share (\$)</b>						<b>6.96</b>

(a) Except for earnings per share.

For the year ended December 31, 2012 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	25,200	2,502	1,671	102		29,475
Total divestments	3,595	392	196	3,360		7,543
Cash flow from operating activities	24,354	2,726	1,456	322		28,858
<b>Balance sheet as of December 31, 2012</b>						
Property, plant and equipment, intangible assets, net	90,128	12,167	5,848	299		108,442
Investments & loans in equity affiliates	14,622	2,600	931			18,153
Other non-current assets	4,255	1,565	1,694	552		8,066
Working capital	(436)	12,742	3,752	(2,337)		13,721
Provisions and other non-current liabilities	(28,356)	(4,020)	(2,146)	(1,708)		(36,230)
Assets and liabilities classified as held for sale	4,047					4,047
<b>Capital Employed (balance sheet)</b>	<b>84,260</b>	<b>25,054</b>	<b>10,079</b>	<b>(3,194)</b>		<b>116,199</b>
Less inventory valuation effect		(4,271)	(847)	(1)		(5,119)
<b>Capital Employed</b>	<b>84,260</b>	<b>20,783</b>	<b>9,232</b>	<b>(3,195)</b>		<b>111,080</b>
<b>(Business segment information)</b>						
<b>ROACE as a percentage</b>	<b>18%</b>	<b>9%</b>	<b>12%</b>			<b>15%</b>

**Table of Contents****B) ROE (Return on Equity)**

The Group evaluates the return on equity as the ratio of adjusted consolidated net income to average adjusted shareholders' equity between the beginning and the end of

the period. Thus, adjusted shareholders' equity for the year ended December 31, 2014 is calculated after payment of a dividend of 2.44 per share, subject to approval by the shareholders' meeting on May 29, 2015.

The ROE is calculated as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Adjusted net income - Group share	12,837	14,292	15,772
Adjusted non-controlling interests	199	274	223
<b>Adjusted consolidated net income</b>	<b>13,036</b>	<b>14,566</b>	<b>15,995</b>
Shareholders' equity - Group share	90,330	100,241	93,969
Distribution of the income based on existing shares at the closing date	(1,686)	(1,908)	(1,757)
Non-controlling interests	3,201	3,138	1,689
<b>Adjusted shareholders' equity<sup>(a)</sup></b>	<b>91,845</b>	<b>101,471</b>	<b>93,901</b>
<b>ROE</b>	<b>13.5%</b>	<b>14.9%</b>	<b>17.7%</b>

<sup>(a)</sup> Adjusted shareholders' equity as of December 31, 2011 amounted to \$86,748 million.

**C) Reconciliation of the information by business segment with Consolidated Financial Statements**

The table below presents the impact of adjustment items on the consolidated statement of income:

For the year ended December 31, 2014 (M\$)	Adjusted	Adjustments <sup>(a)</sup>	Consolidated statement of income
<b>Sales</b>	<b>236,091</b>	<b>31</b>	<b>236,122</b>
Excise taxes	(24,104)		(24,104)
Revenues from sales	211,987	31	212,018
Purchases, net of inventory variation	(149,506)	(3,469)	(152,975)
Other operating expenses	(28,123)	(226)	(28,349)
Exploration costs	(1,964)		(1,964)
Depreciation, depletion and amortization of tangible assets and mineral interests	(11,677)	(7,979)	(19,656)
Other income	1,272	1,305	2,577
Other expense	(700)	(254)	(954)
Financial interest on debt	(748)		(748)
Financial income from marketable securities & cash equivalents	108		108
Cost of net debt	(640)		(640)
Other financial income	821		821
Other financial expense	(676)		(676)
Equity in net income (loss) of affiliates	3,315	(653)	2,662
Income taxes	(11,073)	2,459	(8,614)
<b>Consolidated net income</b>	<b>13,036</b>	<b>(8,786)</b>	<b>4,250</b>
Group share	12,837	(8,593)	4,244
Non-controlling interests	199	(193)	6

<sup>(a)</sup> Adjustments include special items, inventory valuation effect and the effect of changes in fair value.



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For the year ended December 31, 2013 (M\$)	Adjusted	Adjustments <sup>(a)</sup>	Consolidated statement of income
<b>Sales</b>	<b>251,799</b>	<b>(74)</b>	<b>251,725</b>
Excise taxes	(23,756)		(23,756)
Revenues from sales	228,043	(74)	227,969
Purchases, net of inventory variation	(159,784)	(1,065)	(160,849)
Other operating expenses	(28,177)	(587)	(28,764)
Exploration costs	(2,169)		(2,169)
Depreciation, depletion and amortization of tangible assets and mineral interests	(10,951)	(1,043)	(11,994)
Other income	647	1,643	2,290
Other expense	(574)	(2,226)	(2,800)
Financial interest on debt	(889)		(889)
Financial income from marketable securities & cash equivalents	85		85
Cost of net debt	(804)		(804)
Other financial income	696		696
Other financial expense	(702)		(702)
Equity in net income (loss) of affiliates	3,435	(20)	3,415
Income taxes	(15,094)	327	(14,767)
<b>Consolidated net income</b>	<b>14,566</b>	<b>(3,045)</b>	<b>11,521</b>
Group share	14,292	(3,064)	11,228
Non-controlling interests	274	19	293

<sup>(a)</sup> Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

For the year ended December 31, 2012 (M\$)	Adjusted	Adjustments <sup>(a)</sup>	Consolidated statement of income
<b>Sales</b>	<b>257,049</b>	<b>(12)</b>	<b>257,037</b>
Excise taxes	(22,821)		(22,821)
Revenues from sales	234,228	(12)	234,216
Purchases, net of inventory variation	(162,607)	(301)	(162,908)
Other operating expenses	(28,156)	(1,117)	(29,273)
Exploration costs	(1,857)		(1,857)
Depreciation, depletion and amortization of tangible assets and mineral interests	(10,346)	(1,891)	(12,237)
Other income	876	1,021	1,897
Other expense	(579)	(599)	(1,178)
Financial interest on debt	(863)		(863)
Financial income from marketable securities & cash equivalents	128		128
Cost of net debt	(735)		(735)
Other financial income	717		717
Other financial expense	(641)		(641)
Equity in net income (loss) of affiliates	2,695	(113)	2,582
Income taxes	(17,600)	853	(16,747)
<b>Consolidated net income</b>	<b>15,995</b>	<b>(2,159)</b>	<b>13,836</b>
Group share	15,772	(2,124)	13,648
Non-controlling interests	223	(35)	188

<sup>(a)</sup> Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

**Table of Contents****D) Adjustment items by business segment**

The adjustment items to income as per Note 2 to the Consolidated Financial Statements are detailed as follows:

Adjustments to operating income					
For the year ended December 31, 2014 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(2,944)	(525)		(3,469)
Effect of changes in fair value	31				31
Restructuring charges					
Asset impairment charges	(6,529)	(1,450)			(7,979)
Other items	(164)	(36)	(26)		(226)
<b>Total</b>	<b>(6,662)</b>	<b>(4,430)</b>	<b>(551)</b>		<b>(11,643)</b>

Adjustments to net income, Group share					
For the year ended December 31, 2014 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(2,114)	(339)		(2,453)
Effect of changes in fair value	25				25
Restructuring charges		(13)	(7)		(20)
Asset impairment charges	(5,514)	(1,409)	(140)		(7,063)
Gains (losses) on disposals of assets	1,314	(105)			1,209
Other items	(193)	(58)	(40)		(291)
<b>Total</b>	<b>(4,368)</b>	<b>(3,699)</b>	<b>(526)</b>		<b>(8,593)</b>

Adjustments to operating income					
For the year ended December 31, 2013 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(978)	(87)		(1,065)
Effect of changes in fair value	(74)				(74)
Restructuring charges		(373)	(3)		(376)
Asset impairment charges	(855)	(184)	(4)		(1,043)
Other items	(113)	(54)	(44)		(211)
<b>Total</b>	<b>(1,042)</b>	<b>(1,589)</b>	<b>(138)</b>		<b>(2,769)</b>

Adjustments to net income, Group share					
For the year ended December 31, 2013 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(656)	(72)		(728)
Effect of changes in fair value	(58)				(58)
Restructuring charges		(537)	(30)		(567)
Asset impairment charges	(581)	(183)	(9)		(773)
Gains (losses) on disposals of assets	(58)	(59)			(117)
Other items	(113)	(676)	47	(79)	(821)
<b>Total</b>	<b>(810)</b>	<b>(2,111)</b>	<b>(64)</b>	<b>(79)</b>	<b>(3,064)</b>

Adjustments to operating income					
For the year ended December 31, 2012 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(230)	(71)		(301)
Effect of changes in fair value	(12)				(12)
Restructuring charges		(3)			(3)
Asset impairment charges	(1,538)	(266)	(87)		(1,891)
Other items	(752)	(24)	(223)	(115)	(1,114)

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<b>Total</b>	<b>(2,302)</b>	<b>(523)</b>	<b>(381)</b>	<b>(115)</b>	<b>(3,321)</b>
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Adjustments to net income, Group share					
For the year ended December 31, 2012 (M\$)	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(149)	(52)		(201)
Effect of changes in fair value	(9)				(9)
Restructuring charges		(31)	(68)		(99)
Asset impairment charges	(985)	(247)	(155)	(39)	(1,426)
Gains (losses) on disposals of assets	326			438	764
Other items	(491)	(57)	(140)	(465)	(1,153)
<b>Total</b>	<b>(1,159)</b>	<b>(484)</b>	<b>(415)</b>	<b>(66)</b>	<b>(2,124)</b>

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### ***E) Additional information on impairments***

In the Upstream, Refining & Chemicals and Marketing & Services segments, impairments of assets have been recognized for the year ended December 31, 2014, with an impact of \$7,979 million in operating income and \$7,063 million in net income, Group share. These impairments have been disclosed as adjustments to operating income and adjustments to net income, Group share. These items are identified in paragraph 4D above as adjustment items within the heading Asset impairment charges .

The impairment losses impact certain Cash Generating Units (CGU) for which there were indications of impairment, due mainly to changes in the operating conditions or the economic environment of their specific businesses.

The principles applied are the following:

the recoverable amount of CGU s has been based on their value in use, as defined in Note 1 paragraph L to the Consolidated Financial Statements Impairment of long-lived assets ;

the future cash flows have been determined with the assumptions in the long-term plan of the Group. These assumptions (including future prices of products, supply and demand for products, future production volumes) represent the best estimate by management of the Group of all economic conditions during the remaining life of assets;

the future cash flows, based on the long-term plan, are prepared over a period consistent with the life of the assets within the CGU. They are prepared post-tax and include specific risks attached to CGU assets. They are discounted using an 7% post-tax discount rate, this rate being a weighted-average capital cost estimated from historical market data. This rate was 8% for the years ending 2012 and 2013.

the value in use calculated by discounting the above post-tax cash flows using an 7% post-tax discount rate is not materially different from value in use calculated by discounting pre-tax cash flows using a pre-tax discount rate determined by an iterative computation from the post-tax value in use. These pre-tax discount rates are in a range from 7% to 11% in 2014.

For the year ended December 31, 2014 impairments of assets have been recognized in respect of CGUs of the Upstream segment with an impact of \$6,529 million in

operating income and \$5,514 million in net income, Group share. These impairments recognized in 2014 concern mainly:

oil sands assets in Canada, with the deteriorating economic environment affecting the profitability of the Fort Hills project under development and preventing a final development decision in the near future for the Joslyn and Northern Lights projects. Impairments recognized amount to \$2,494 million in operating profit and \$2,160 million in net income, Group share;

non-conventional gas assets in the United-States, China, Venezuela and Algeria, whose plans and development potential in an unfavorable economic environment have been revised downwards. Impairments recognized amount to \$2,944 million in operating profit and \$2,080 million in net income, Group share;

other assets in Africa (impairment of \$924 million in operating profit and \$785 million in net income, Group share), on the Shokman project in Russia, for which the technical development scheme does not provide an acceptable profitability (impairment of \$350 million in net income, Group share), and in Kazakhstan on the Kashagan project, following technical problems and the decision to replace the project s pipelines (impairments recognized amount to \$167 million in operating profit and \$121 million in net income, Group share).

Given the sharp decline in oil prices observed over the last months of 2014, cash flows determined from the long-term plan were modified to integrate weaker oil prices over the first three years. A variation of +10% in oil prices under identical operating conditions would have a positive impact of \$1,312 million in operating profit and \$1,038 million in net income, Group share. A variation of -1 point in the discount rate would have a positive impact of \$985 million in operating profit and \$802 million in net income, Group share. For these assets and certain assets whose value in use is close to their net book value, a variation of -10% in oil prices, except for the first three years where it is increased to -25%, under identical operating conditions, would have a negative impact of \$2,338 million in operating profit and \$1,588 million in net income, Group share. These sensitivities in price concern mainly assets impaired in 2014 as well as other assets, notably in the United States and Russia. A variation of +1 point in the discount rate would have a negative impact of \$1,030 million in operating profit and \$831 million in net income, Group share.





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The CGUs for the Refining & Chemicals segment are defined by the legal entities having the operating activities for the refining and petrochemical activities. The CGUs for the other activities of the sector are global divisions, each division grouping together a set of businesses or homogeneous products for strategic, commercial and industrial plans. For the year 2014, in a context of a reduction in demand for refined products and persistent weakness in refining margins in Europe, the Group recognized impairments of \$1,450 million in operating profit and \$1,409 million in net income, Group share, on refining CGUs in France and the United Kingdom. A +5% variation in gross margin, under identical operating conditions, would have a positive impact of \$1,036 million in operating profit and in net income, Group share. A variation of -1 point in the discount rate would have a positive impact of \$199 million in operating income and net income, Group share. Opposite variations in gross margin and discount rate would have an impact respectively of \$(814) million and \$(139) million in operating income and in net income, Group share.

The CGUs of Marketing & Services are subsidiaries or groups of subsidiaries organized by relevant geographical zone. For the year 2014 the Group recorded impairments on CGUs of the Marketing & Services segment of \$140 million in net income, Group share. A of +5% variation in gross margin, under identical operating

conditions, would have a positive impact of \$45 million in net income, Group share. A variation of -1 point in the discount rate would have a positive impact of \$40 million in net income, Group share. Opposite variations in gross margin and discount rate would have impacts respectively of \$(45) million and \$(28) million in net income, Group share.

For the year ended December 31, 2013, impairments of assets were recognized in the Upstream, Refining & Chemicals, Marketing & Services and Holding segments with an impact of \$1,043 million in operating income and \$773 million in net income, Group share. These impairments have been disclosed as adjustments to operating income and adjustments to net income, Group share.

For the year ended December 31, 2012, impairments of assets have been recognized in the Upstream, Refining & Chemicals, Marketing & Services and Holding segments with an impact of \$1,891 million in operating income and \$1,426 million in net income, Group share. These impairments have been disclosed as adjustments to operating income and adjustments to net income, Group share.

No reversal of impairment has been recognized for the years ended December 31, 2012, 2013 and 2014.

**5) Information by geographical area**

(M\$)	France	Rest of Europe	North America	Africa	Rest of the world	Total
<b>For the year ended December 31, 2014</b>						
Non-Group sales	51,471	114,747	23,766	23,281	22,857	<b>236,122</b>
Property, plant and equipment, intangible assets, net	4,350	25,137	16,064	41,405	34,602	<b>121,558</b>
Capital expenditures	1,266	5,880	3,658	9,798	9,907	<b>30,509</b>
<b>For the year ended December 31, 2013</b>						
Non-Group sales	57,650	128,661	22,332	23,146	19,936	<b>251,725</b>
Property, plant and equipment, intangible assets, net	6,251	26,840	19,588	37,847	32,349	<b>122,875</b>
Capital expenditures	1,772	6,289	4,157	10,705	11,508	<b>34,431</b>
<b>For the year ended December 31, 2012</b>						
Non-Group sales	59,077	133,439	22,675	23,025	18,821	<b>257,037</b>
Property, plant and equipment, intangible assets, net	6,017	23,349	20,082	32,983	26,011	<b>108,442</b>
Capital expenditures	2,041	5,660	4,045	9,346	8,383	<b>29,475</b>

**6) Operating expenses**

For the year ended December 31, (M\$)	2014	2013	2012
Purchases, net of inventory variation <sup>(a)(b)</sup>	(152,975)	(160,849)	(162,908)
Exploration costs	(1,964)	(2,169)	(1,857)
Other operating expenses <sup>(c)</sup>	(28,349)	(28,764)	(29,273)
<i>of which non-current operating liabilities (allowances) reversals</i>	717	184	560
<i>of which current operating liabilities (allowances) reversals</i>	(147)	6	(65)
<b>Operating expenses</b>	<b>(183,288)</b>	<b>(191,782)</b>	<b>(194,038)</b>

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- (a) Includes taxes paid on oil and gas production in the Upstream segment, namely royalties.*
- (b) The Group values under / over lifting at market value.*
- (c) Principally composed of production and administrative costs (see in particular the payroll costs as detailed in Note 26 to the Consolidated Financial Statements Payroll and staff ). Also includes for 2012 an amount of \$226 million for the exceptional contribution of 4% on the value of the oil stocks established by the second corrective finance act for 2012 in France. This exceptional contribution was due by every person, with the exception of the state, owning volumes of certain types of petroleum products situated in the territory of metropolitan France.*

**Table of Contents****7) Other income and other expense**

For the year ended December 31, (M\$)	2014	2013	2012
Gains on disposal of assets	2,085	1,991	1,715
Foreign exchange gains	216	9	34
Other	276	290	148
<b>Other income</b>	<b>2,577</b>	<b>2,290</b>	<b>1,897</b>
Losses on disposal of assets	(106)	(1,911)	
Foreign exchange losses			
Amortization of other intangible assets (excl. mineral interests)	(254)	(292)	(320)
Other	(594)	(597)	(858)
<b>Other expense</b>	<b>(954)</b>	<b>(2,800)</b>	<b>(1,178)</b>
<b>Other income</b>			

In 2014, gains on disposal of assets mainly related to sales of assets in the Upstream segment in Angola and the United-States and to sales of interests, also in the Upstream segment in: the company GTT (GazTransport et Technigaz), the Shah Deniz field and the South Caucasus pipeline (see Note 3 to the Consolidated Financial Statements).

In 2013, gains on disposals were mainly related to the sale of Transport et Infrastructures Gaz France (TIGF) and the sales of interests in the Upstream segment: 25% interest in the Tempa Rossa field in Italy and all interests in Trinidad & Tobago (see Note 3 to the Consolidated Financial Statements).

In 2012, gains on disposal of assets were mainly related to the sale of the interest in Sanofi and to the sale of assets in the Upstream segment (sales in Colombia (see Note 3 to the Consolidated Financial Statements), Great Britain and Nigeria).

**Other expense**

In 2014, the loss on disposals is mainly related to the sale of CCP Composites to Polynt Group. The heading **Other** mainly consists of the impairment of shares and loans of non-consolidated subsidiaries for an amount of \$88 million, \$43 million of restructuring charges as well as \$34 million for expenses relating to sales.

In 2013, the loss on disposals is mainly related to the sale to Suncor Energy Inc. of TOTAL's 49% interest in the Voyageur upgrader project in Canada (see Note 3 to the Consolidated Financial Statements). The heading **Other** mainly consists of \$281 million of restructuring charges in the Upstream, Refining & Chemicals and Marketing & Services segments.

In 2012, the heading **Other** was mainly comprised of a provision for the amount of \$398 million in relation to a transaction in progress with the United States Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States (see Note 32 to the Consolidated Financial Statements).

**8) Other financial income and expense**

As of December 31, (M\$)	2014	2013	2012
Dividend income on non-consolidated subsidiaries	282	202	286
Capitalized financial expenses	348	343	319
Other	191	151	112
<b>Other financial income</b>	<b>821</b>	<b>696</b>	<b>717</b>
Accretion of asset retirement obligations	(543)	(584)	(520)
Other	(133)	(118)	(121)
<b>Other financial expense</b>	<b>(676)</b>	<b>(702)</b>	<b>(641)</b>

**9) Income taxes**

TOTAL S.A. is taxed in accordance with the common French tax regime.

Since August 2012, an additional tax to corporate income tax of 3% is due on dividends distributed by French companies or foreign organizations subject to corporate income tax in France. This tax is liable on amounts distributed, the payment of which was due from August 17th, 2012, the effective date of the law.

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The impact of this additional tax for the Group is a charge of \$222 million in 2014, \$214 million in 2013 and of \$154 million in 2012. This additional tax is not tax deductible.

In addition, no deferred tax is recognized for the temporary differences between the carrying amounts and tax bases of investments in foreign subsidiaries which are considered to be permanent investments. Undistributed earnings from foreign subsidiaries considered to be reinvested indefinitely amounted to \$50,983 million as of December 31, 2014. The determination of the tax effect relating to such reinvested income is not practicable.

No deferred tax is recognized on unremitted earnings (approximately \$39,244 million) of the Group's French subsidiaries since the remittance of such earnings would be tax exempt for the subsidiaries in which the Company owns 95% or more of the outstanding shares.

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Income taxes are detailed as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Current income taxes	(10,904)	(13,607)	(15,970)
Deferred income taxes	2,290	(1,160)	(777)
<b>Total income taxes</b>	<b>(8,614)</b>	<b>(14,767)</b>	<b>(16,747)</b>

Before netting deferred tax assets and liabilities by fiscal entity, the components of deferred tax balances are as follows:

As of December 31, (M\$)	2014	2013	2012
Net operating losses and tax carry forwards	5,213	4,586	2,965
Employee benefits	1,770	1,641	2,089
Other temporary non-deductible provisions	6,258	5,992	5,011
Differences in depreciations	(18,129)	(20,948)	(18,582)
Other temporary tax deductions	(2,542)	(3,267)	(3,558)
Valuation allowance	(3,301)	(2,016)	(949)
<b>Net deferred tax liability</b>	<b>(10,731)</b>	<b>(14,012)</b>	<b>(13,024)</b>

Carried forward tax losses on net operating losses in the table above for \$5,213 million as of December 31, 2014, includes notably France for \$1,283 million, the United Kingdom for \$1,128 million, Canada for \$739 million and Belgium for \$736 million.

The impairment of deferred tax assets in the table above for \$3,301 million as of December 31, 2014, relates notably to Congo for an amount of \$1,030 million, to France for an amount of \$939 million and to Belgium for an amount of \$415 million.

After netting deferred tax assets and liabilities by fiscal entity, deferred taxes are presented on the balance sheet as follows:

As of December 31, (M\$)	2014	2013	2012
Deferred tax assets, non-current	4,079	3,838	2,982
Deferred tax liabilities, non-current	(14,810)	(17,850)	(16,006)
<b>Net amount</b>	<b>(10,731)</b>	<b>(14,012)</b>	<b>(13,024)</b>

The net deferred tax variation in the balance sheet is analyzed as follows:

As of December 31, (M\$)	2014	2013	2012
<b>Opening balance</b>	<b>(14,012)</b>	<b>(13,024)</b>	<b>(12,687)</b>
Deferred tax on income	2,290	(1,160)	(777)
Deferred tax on shareholders' equity <sup>(a)</sup>	562	(349)	547
Changes in scope of consolidation <sup>(b)</sup>	356	153	89
Currency translation adjustment	73	368	(196)
<b>Closing balance</b>	<b>(10,731)</b>	<b>(14,012)</b>	<b>(13,024)</b>

<sup>(a)</sup> This amount includes mainly deferred taxes on actuarial gains and losses, current income taxes and deferred taxes for changes in fair value of listed securities classified as financial assets available for sale, as well as deferred taxes related to the cash flow hedge (see Note 17 to the Consolidated Financial Statements).

<sup>(b)</sup> Changes in scope of consolidation include, as of December 31, 2014, the impact of reclassifications in assets classified as held for sale and liabilities directly associated with the assets classified as held for sale for \$256 million.

**Reconciliation between provision for income taxes and pre-tax income:**

For the year ended December 31, (M\$)	2014	2013	2012
Consolidated net income	4,250	11,521	13,836
Provision for income taxes	8,614	14,767	16,747

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<b>Pre-tax income</b>	<b>12,864</b>	<b>26,288</b>	<b>30,583</b>
French statutory tax rate	38.00%	38.00%	36.10%
<b>Theoretical tax charge</b>	<b>(4,888)</b>	<b>(9,989)</b>	<b>(11,040)</b>
Difference between French and foreign income tax rates	(4,256)	(6,131)	(7,637)
Tax effect of equity in income (loss) of affiliates	1,012	1,298	933
Permanent differences	833	1,130	1,048
Adjustments on prior years income taxes	33		105
Adjustments on deferred tax related to changes in tax rates	(1)	3	(89)
Changes in valuation allowance of deferred tax assets	(1,347)	(1,078)	(67)
<b>Net provision for income taxes</b>	<b>(8,614)</b>	<b>(14,767)</b>	<b>(16,747)</b>

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The difference between the French tax rate and the tax rates of foreign subsidiaries is mainly due to the taxation of profits made by the Group in countries where it conducts its exploration and production activities at higher tax rates than French tax rates.

The French statutory tax rate includes the standard corporate tax rate (33.33%) and additional applicable taxes that bring the overall tax rate to 38.00% in 2014 (versus 38.00% in 2013 and 36.10% in 2012).

Permanent differences are mainly due to impairment of goodwill and to dividends from non-consolidated companies as well as the specific taxation rules applicable to certain activities.

**Net operating losses and carried forward tax credits**

Deferred tax assets related to carried forward tax credits on net operating losses expire in the following years:

As of December 31, (M\$)	2014		2013		2012	
	Basis	Tax	Basis	Tax	Basis	Tax
2013					417	198
2014			491	236	329	153
2015	443	218	372	178	221	99
2016	306	151	226	105	34	11
2017 <sup>(a)</sup>	623	229	565	185	4,206	1,282
2018 <sup>(b)</sup>	424	143	4,435	1,332		
2019 and after	3,313	899				
Unlimited	9,906	3,573	7,593	2,550	4,022	1,222
<b>Total</b>	<b>15,015</b>	<b>5,213</b>	<b>13,682</b>	<b>4,586</b>	<b>9,229</b>	<b>2,965</b>

<sup>(a)</sup> Net operating losses and carried forward tax credits in 2017 and after for 2012.

<sup>(b)</sup> Net operating losses and carried forward tax credits in 2018 and after for 2013.

**10) Intangible assets**

As of December 31, 2014 (M\$)	Cost	Amortization and impairment	Net
Goodwill	1,639	(1,020)	619
Proved mineral interests	12,215	(5,514)	6,701
Unproved mineral interests	10,673	(4,498)	6,175
Other intangible assets	4,387	(3,200)	1,187
<b>Total intangible assets</b>	<b>28,914</b>	<b>(14,232)</b>	<b>14,682</b>

As of December 31, 2013 (M\$)	Cost	Amortization and impairment	Net
Goodwill	2,512	(1,263)	1,249
Proved mineral interests	12,309	(5,003)	7,306
Unproved mineral interests	10,430	(1,785)	8,645
Other intangible assets	4,978	(3,783)	1,195
<b>Total intangible assets</b>	<b>30,229</b>	<b>(11,834)</b>	<b>18,395</b>

As of December 31, 2012 (M\$)	Cost	Amortization and impairment	Net
Goodwill	2,449	(1,275)	1,174
Proved mineral interests	11,614	(4,343)	7,271
Unproved mineral interests	8,465	(1,204)	7,261
Other intangible assets	4,714	(3,455)	1,259
<b>Total intangible assets</b>	<b>27,242</b>	<b>(10,277)</b>	<b>16,965</b>



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Changes in net intangible assets are analyzed in the following table:

(M\$)	Net amount as of January 1,	Acquisitions	Disposals	Amortization and impairment	Currency		Net amount as of December 31,
					translation adjustment	Other	
<b>2014</b>	<b>18,395</b>	<b>1,000</b>	<b>(178)</b>	<b>(3,920)</b>	<b>(276)</b>	<b>(339)</b>	<b>14,682</b>
2013	16,965	3,648	(388)	(1,527)	(10)	(293)	18,395
2012	16,062	3,169	(75)	(1,849)	122	(464)	16,965

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In 2014, the heading **Amortization and impairment** includes the accounting impact of exceptional asset impairments for an amount of \$3,177 million (see note 4D to the Consolidated Financial statements).

In 2014, the heading **Other** mainly includes mineral interests in Utica reclassified into acquisitions for \$(524) million, the recognition of mineral interests in Papua New Guinea for \$429 million, the reclassification of assets in accordance with IFRS 5 **Non-current assets held for sale and discontinued operations** for \$(561) million (see Note 34 to the Consolidated Financial Statements) and the reversal of the reclassification under IFRS 5 as at December 31, 2013 for \$96 million corresponding to disposals.

In 2013, the heading **Other** mainly included mineral interests in Utica reclassified into acquisitions for \$(604) million, the reclassification of assets in accordance with IFRS 5 **Non-current assets held for sale and discontinued operations** for \$(93) million (see Note 34 to the Consolidated Financial Statements) and the reversal of the reclassification under IFRS 5 as at December 31, 2012 for \$331 million corresponding to disposals.

In 2012, the heading **Other** mainly included the reclassification of assets in accordance with IFRS 5 **Non-current assets held for sale and discontinued operations** for \$(428) million (see Note 34 to the Consolidated Financial Statements).

A summary of changes in the carrying amount of goodwill by business segment for the year ended December 31, 2014 is as follows:

(M\$)	Net goodwill as of January 1, 2014	Increases	Impairments	Other	Net goodwill as of December 31, 2014
<b>Upstream</b>	4			(4)	
<b>Refining &amp; Chemicals</b>	1,123			(638)	485
<b>Marketing &amp; Services</b>	88	34	(2)	(16)	104
<b>Corporate</b>	34			(4)	30
<b>Total</b>	<b>1,249</b>	<b>34</b>	<b>(2)</b>	<b>(662)</b>	<b>619</b>

**11) Property, plant and equipment**

As of December 31, 2014 (M\$)	Cost	Depreciation and impairment	Net
<b>Upstream properties</b>			
Proved properties	139,294	(86,326)	52,968
Unproved properties	2,153		2,153
Work in progress	38,698	(1,574)	37,124
<b>Subtotal</b>	<b>180,145</b>	<b>(87,900)</b>	<b>92,245</b>
<b>Other property, plant and equipment</b>			
Land	1,683	(613)	1,070
Machinery, plant and equipment (including transportation equipment)	30,966	(24,874)	6,092
Buildings	8,141	(5,291)	2,850
Work in progress	2,367	(324)	2,043
Other	8,673	(6,097)	2,576
<b>Subtotal</b>	<b>51,830</b>	<b>(37,199)</b>	<b>14,631</b>
<b>Total property, plant and equipment</b>	<b>231,975</b>	<b>(125,099)</b>	<b>106,876</b>

As of December 31, 2013 (M\$)	Cost	Depreciation and impairment	Net
<b>Upstream properties</b>			
Proved properties	134,512	(83,423)	51,089
Unproved properties	1,432		1,432
Work in progress	34,668	(56)	34,612
<b>Subtotal</b>	<b>170,612</b>	<b>(83,479)</b>	<b>87,133</b>
<b>Other property, plant and equipment</b>			
Land	1,846	(582)	1,264

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Machinery, plant and equipment (including transportation equipment)	35,215	(26,903)	8,312
Buildings	9,050	(5,870)	3,180
Work in progress	2,318	(465)	1,853
Other	9,717	(6,979)	2,738
<b>Subtotal</b>	<b>58,146</b>	<b>(40,799)</b>	<b>17,347</b>
<b>Total property, plant and equipment</b>	<b>228,758</b>	<b>(124,278)</b>	<b>104,480</b>

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As of December 31, 2012 (M\$)	Cost	Depreciation and impairment	Net
<b>Upstream properties</b>			
Proved properties	115,971	(76,303)	39,668
Unproved properties	302		302
Work in progress	35,155	(227)	34,928
<b>Subtotal</b>	<b>151,428</b>	<b>(76,530)</b>	<b>74,898</b>
<b>Other property, plant and equipment</b>			
Land	1,787	(537)	1,250
Machinery, plant and equipment (including transportation equipment)	33,645	(25,673)	7,972
Buildings	8,562	(5,505)	3,057
Work in progress	2,285	(365)	1,920
Other	9,029	(6,649)	2,380
<b>Subtotal</b>	<b>55,308</b>	<b>(38,729)</b>	<b>16,579</b>
<b>Total property, plant and equipment</b>	<b>206,736</b>	<b>(115,259)</b>	<b>91,477</b>

Changes in net property, plant and equipment are analyzed in the following table:

(M\$)	Net amount as of January 1,	Acquisitions	Disposals	Depreciation and impairment	Currency translation adjustment	Other	Net amount as of December 31,
<b>2014</b>	<b>104,480</b>	<b>25,320</b>	<b>(2,211)</b>	<b>(16,939)</b>	<b>(4,438)</b>	<b>664</b>	<b>106,876</b>
2013	91,477	26,100	(2,828)	(11,831)	(361)	1,923	104,480
2012	83,400	22,405	(813)	(11,617)	1,286	(3,184)	91,477

In 2014, the heading **Disposals** mainly includes the impact of sales in the Upstream segment (sale of block 15/06 in Angola and the Shah Deniz field in Azerbaijan).

In 2014, the heading **Depreciation and impairment** includes the impact of impairments of assets recognized for an amount of \$4,802 million (see Note 4D to the Consolidated Financial Statements).

In 2014, the heading **Other** principally corresponds to the increase of the asset for site restitution for an amount of \$1,366 million. It also includes \$(466) million related to the reclassification of assets classified in accordance with IFRS 5 **Non-current assets held for sale and discontinued operations** primarily related to the sales of Total Coal South Africa and Bostik.

In 2013, the heading **Disposals** mainly includes the impact of sales of assets in the Upstream segment (sale of the Voyageur Upgrader project in Canada and the sale of TOTAL's interests in the Tempa Rossa field in Italy).

In 2013, the heading **Depreciation and impairment** includes the impact of impairments of assets recognized for \$1,043 million (see Note 4D to the Consolidated Financial Statements).

In 2013, the heading **Other** principally corresponds to the increase of the asset for site restitution for an amount of \$2,748 million. It also includes \$(538) million related to the reclassification of assets classified in accordance with IFRS 5 **Non-current assets held for sale and discontinued operations** and \$(206) million related to the sale of the fertilizing businesses in Europe.

In 2012, the heading **Disposals** mainly included the impact of sales of assets in the Upstream segment in Great Britain, Norway and Nigeria.

In 2012, the heading **Depreciation and impairment** included the impact of impairments of shale gas assets in the Barnett basin recognized for \$1,457 million (see Note 4D to the Consolidated Financial Statements).

In 2012, the heading **Other** principally included the reclassification of assets in accordance with IFRS 5 **Non-current assets held for sale and discontinued operations** for an amount of \$3,844 million.

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Property, plant and equipment presented above include the following amounts for facilities and equipment under finance leases that have been capitalized:

		Depreciation and impairment	Net
As of December 31, 2014 (M\$)	Cost		
Machinery, plant and equipment	520	(443)	77
Buildings	72	(45)	27
Other	245	(29)	216
<b>Total</b>	<b>837</b>	<b>(517)</b>	<b>320</b>
As of December 31, 2013 (M\$)	Cost	Depreciation and impairment	Net
Machinery, plant and equipment	519	(417)	102
Buildings	72	(35)	37
Other	263	(17)	246
<b>Total</b>	<b>854</b>	<b>(469)</b>	<b>385</b>
As of December 31, 2012 (M\$)	Cost	Depreciation and impairment	Net
Machinery, plant and equipment	502	(378)	124
Buildings	69	(33)	36
Other	267	(3)	264
<b>Total</b>	<b>838</b>	<b>(414)</b>	<b>424</b>

**12) Equity affiliates: investments and loans**

The contribution of equity affiliates in the consolidated balance sheet, consolidated statement of income and consolidated statement of comprehensive income is presented below:

Equity value				
As of December 31,				
(M\$)	2014	2013	2012	
Total Associates	11,632	13,717	12,374	
Total Joint ventures	3,016	3,146	2,665	
<b>Total</b>	<b>14,648</b>	<b>16,863</b>	<b>15,039</b>	
Loans	4,626	3,554	3,114	
<b>Total</b>	<b>19,274</b>	<b>20,417</b>	<b>18,153</b>	

Equity share in profit/(loss)				
As of December 31,				
(M\$)	2014	2013	2012	
Total Associates	2,786	3,238	2,520	
Total Joint ventures	(124)	177	62	
<b>Total</b>	<b>2,662</b>	<b>3,415</b>	<b>2,582</b>	

Other comprehensive income				
As of December 31,				
(M\$)	2014	2013	2012	
Total Associates	(1,532)	(669)	134	

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Total Joint ventures	(6)	(136)	115
<b>Total</b>	<b>(1,538)</b>	<b>(805)</b>	<b>249</b>

In cases where the Group holds less than 20% of the voting rights in another entity, the determination of whether the Group exercises significant influence is also based on other facts and circumstances i.e. representation on the board of directors or an equivalent governing body of the entity, participation in policy-making processes, including participation in decisions relating to dividends or other distributions, significant transactions between the investor and the entity, exchange of management personnel, or provision of essential technical information.

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Information (100% gross) relating to significant associates is as follows:

**Upstream**

(M\$)	Novatek <sup>(a)</sup>			Liquefaction entities			PetroCedeño		
	2014	2013	2012	2014	2013	2012	2014	2013	2012
Non current assets	9,551	13,617	11,465	33,909	31,680	30,751	6,458	6,263	6,074
Current assets	1,648	2,829	1,652	9,007	7,684	7,480	10,033	5,059	4,499
<b>Total Assets</b>	<b>11,199</b>	<b>16,446</b>	<b>13,117</b>	<b>42,916</b>	<b>39,364</b>	<b>38,231</b>	<b>16,491</b>	<b>11,322</b>	<b>10,573</b>
Shareholder s equity	7,135	10,683	9,289	25,090	23,256	20,919	5,597	5,581	5,578
Non current liabilities	3,352	4,934	2,718	10,876	11,474	12,686	274	186	208
Current liabilities	712	829	1,110	6,950	4,634	4,626	10,620	5,555	4,787
<b>Total Liabilities</b>	<b>11,199</b>	<b>16,446</b>	<b>13,117</b>	<b>42,916</b>	<b>39,364</b>	<b>38,231</b>	<b>16,491</b>	<b>11,322</b>	<b>10,573</b>
Revenue from sales	9,222	9,355	7,019	39,502	38,728	38,296	3,644	4,117	4,707
<b>Net income</b>	<b>2,759</b>	<b>2,647</b>	<b>3,744</b>	<b>14,269</b>	<b>14,381</b>	<b>13,941</b>	<b>343</b>	<b>600</b>	<b>522</b>
<b>Other comprehensive income</b>	<b>(5,431)</b>	<b>(697)</b>	<b>372</b>						
% owned	18.24%	16.96%	15.34%				30.32%	30.32%	30.32%
Revaluation identifiable assets on equity affiliates	1,944	3,545	3,608						
Equity value	3,245	5,357	5,034	4,130	3,625	3,049	1,697	1,692	1,692
Equity share in profit/(loss)	193	221	43	2,125	2,027	1,769	104	182	158
Equity other comprehensive income	(1,844)	(621)	143	200	(21)	(1)			
Dividends paid to the Group	126	102	89	1,687	1,579	1,908	99	182	60

<sup>(a)</sup> Information includes estimates at the date of Total s financial statements.

Novatek, listed in Moscow and London, is the 2nd largest producer of natural gas in Russia. The Group share of Novatek s market value amounted to \$4,234 million as at December 31, 2014. Novatek is consolidated by the equity method. Total considers, in fact, that it exercises significant influence particularly via its representation on the board of directors of Novatek and its interest in the major project of Yamal LNG.

The Group s interests in associates operating liquefaction plants are combined. The amounts include investments in; Nigeria LNG (15.00%), Angola LNG Ltd. (13.60%), Yemen LNG Co (39.62%), Qatargas (10.00%), Qatar Liquefied Gas Company Limited II Train B (16.70%), Oman LNG (5.54%), Brass LNG (20.48%) and Abu Dhabi Gas Lc (5.00%).

PetroCedeño produces and upgrades extra-heavy crude oil in Venezuela.

**Refining & Chemicals**

(M\$)	Saudi Aramco Total					
	Refining & Petrochemicals			Qatar		
	2014	2013	2012	2014	2013	2012
Non current assets	12,654	12,356	10,380	3,020	2,867	2,561
Current assets	1,250	1,331	98	1,385	1,277	1,086
<b>Total Assets</b>	<b>13,904</b>	<b>13,687</b>	<b>10,478</b>	<b>4,405</b>	<b>4,144</b>	<b>3,647</b>
Shareholder s equity	1,672	1,485	623	2,930	2,629	2,271
Non current liabilities	9,584	10,441	9,253	409	481	905
Current liabilities	2,648	1,761	602	1,066	1,034	471
<b>Total Liabilities</b>	<b>13,904</b>	<b>13,687</b>	<b>10,478</b>	<b>4,405</b>	<b>4,144</b>	<b>3,647</b>
Revenue from sales	7,061			1,817	2,161	1,858
<b>Net income</b>	<b>(113)</b>	<b>(89)</b>	<b>(99)</b>	<b>875</b>	<b>1,009</b>	<b>925</b>
<b>Other comprehensive income</b>						<b>3</b>
% owned	37.50%	37.50%	37.50%			
Revaluation identifiable assets on equity affiliates						
Equity value	627	557	233	850	798	678
Equity share in profit/(loss)	(42)	(33)	(37)	312	346	301
Equity other comprehensive income	89	(35)	(3)	25	(8)	
Dividends paid to the Group				261	224	114





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Saudi Aramco Total Refining & Petrochemicals is an entity including a refinery in Jubail, Saudi Arabia, with a capacity of 400,000 barrels/day with integrated petrochemical units which commenced production in June 2014.

The Group's interests in associates of the Refining & Chemicals segment, operating steam crackers and polyethylene lines in Qatar have been combined: Qatar Petrochemical Company Ltd. (20.00%) and Qatofin (49.09%).

The information (100% gross) relating to significant joint ventures is as follows:

(M\$)	Liquefaction entities (Upstream)			Samsung Total Petrochemicals (Refining & Chemicals)		
	2014	2013	2012	2014	2013	2012
Non current assets	23,326	12,569	4,521	3,754	3,785	2,668
Current assets excluding cash and cash equivalents	731	52	131	1,972	1,335	1,211
Cash and cash equivalents	516	359	189	149	157	119
<b>Total Assets</b>	<b>24,573</b>	<b>12,980</b>	<b>4,841</b>	<b>5,875</b>	<b>5,277</b>	<b>3,998</b>
Shareholder's equity	1,198	862	1,193	2,323	2,336	2,000
Other non current liabilities	225	7	7	126	83	69
Non current financial debts	21,596	10,696	2,463	1,793	1,382	900
Other current liabilities	1,269	1,415	1,178	705	706	617
Current financial debts	285			928	770	412
<b>Total Liabilities</b>	<b>24,573</b>	<b>12,980</b>	<b>4,841</b>	<b>5,875</b>	<b>5,277</b>	<b>3,998</b>
Revenue from sales	5	7		8,366	7,188	6,429
Depreciation and amortization	(5)			(223)	(199)	(213)
Interest income	2			1		
Interest expense	(1)			(45)	(21)	(33)
Income taxes	50			(114)	(98)	(75)
<b>Net income</b>	<b>36</b>	<b>(93)</b>	<b>(81)</b>	<b>79</b>	<b>377</b>	<b>175</b>
<b>Other comprehensive income</b>		<b>(295)</b>	<b>58</b>	<b>(94)</b>	<b>47</b>	<b>152</b>
% owned				50.00%	50.00%	50.00%
Revaluation identifiable assets on equity affiliates	874	978	774			
Equity value	1,130	1,164	1,030	1,161	1,169	1,000
Equity share in profit/(loss)	10	(21)	(16)	40	189	87
Equity other comprehensive income	(26)	(137)	55	(24)	14	59
Dividends paid to the Group					45	76

The Group's interests in joint ventures operating liquefaction plants have been combined. The amounts include investments in Yamal LNG in Russia (20.01% direct holding) and Ichthys LNG in Australia (30.00%).

Samsung Total Petrochemicals is a South Korean company that operates a petrochemical complex in Daesan, South Korea (condensate separator, steam cracker, styrene, paraxylene, polyolefins).

Off balance sheet commitments relating to joint ventures are disclosed in note 23 of the consolidated financial statements.

In Group share, the main aggregated financial items in equity consolidated affiliates which have not been presented individually are as follows:

As of December 31,	2014		2013		2012	
	Associates	Joint ventures	Associates	Joint ventures	Associates	Joint ventures

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(M\$)						
Non Current assets	3,502	1,456	4,018	1,460	3,314	942
Current assets	1,478	1,283	1,498	1,521	1,223	1,320
<b>Total Assets</b>	<b>4,980</b>	<b>2,739</b>	<b>5,516</b>	<b>2,981</b>	<b>4,537</b>	<b>2,262</b>
Shareholder s equity	1,083	725	1,688	813	1,689	634
Non current liabilities	2,348	877	2,227	1,050	1,725	694
Current liabilities	1,549	1,137	1,601	1,118	1,123	934
<b>Total Liabilities</b>	<b>4,980</b>	<b>2,739</b>	<b>5,516</b>	<b>2,981</b>	<b>4,537</b>	<b>2,262</b>

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For the year ended December 31, (M\$)	2014		2013		2012	
	Associates	Joint ventures	Associates	Joint ventures	Associates	Joint ventures
Revenues from sales	4,124	4,473	3,910	5,512	3,834	5,054
<b>Net income</b>	<b>95</b>	<b>(175)</b>	<b>495</b>	<b>9</b>	<b>287</b>	<b>(10)</b>
Other comprehensive income	(2)	44	16	(13)	(4)	
Equity value	1,083	725	1,688	813	1,689	634
Dividends paid to the Group	470	43	446	48	546	41

**13) Other investments**

The investments detailed below are classified as Financial assets available for sale (see Note 1 paragraph M(ii) to the Consolidated Financial Statements).

As of December 31, 2014			
(M\$)	Carrying amount	Unrealized gain (loss)	Balance sheet value
Areva <sup>(a)</sup>	44	(4)	40
Other publicly traded equity securities	21	23	44
<b>Total publicly traded equity securities<sup>(b)</sup></b>	<b>65</b>	<b>19</b>	<b>84</b>
BBPP	62		62
BTC Limited	132		132
Other equity securities	1,121		1,121
<b>Total other equity securities<sup>(b)</sup></b>	<b>1,315</b>		<b>1,315</b>
<b>Other investments</b>	<b>1,380</b>	<b>19</b>	<b>1,399</b>

As of December 31, 2013			
(M\$)	Carrying amount	Unrealized gain (loss)	Balance sheet value
Areva <sup>(a)</sup>	51	44	95
Olympia Energy Fund - energy investment fund	50	(10)	40
Other publicly traded equity securities	10	15	25
<b>Total publicly traded equity securities<sup>(b)</sup></b>	<b>111</b>	<b>49</b>	<b>160</b>
BBPP	80		80
BTC Limited	144		144
Other equity securities	1,282		1,282
<b>Total other equity securities<sup>(b)</sup></b>	<b>1,506</b>		<b>1,506</b>
<b>Other investments</b>	<b>1,617</b>	<b>49</b>	<b>1,666</b>

As of December 31, 2012			
(M\$)	Carrying amount	Unrealized gain (loss)	Balance sheet value
Areva <sup>(a)</sup>	50	13	63
Olympia Energy Fund - energy investment fund	50	(8)	42
Other publicly traded equity securities	6	10	16
<b>Total publicly traded equity securities<sup>(b)</sup></b>	<b>106</b>	<b>15</b>	<b>121</b>
BBPP	80		80
Ocensa	110		110
BTC Limited	157		157
Other equity securities	1,103		1,103
<b>Total other equity securities<sup>(b)</sup></b>	<b>1,450</b>		<b>1,450</b>
<b>Other investments</b>	<b>1,556</b>	<b>15</b>	<b>1,571</b>

<sup>(a)</sup> Unrealized gain based on the investment certificate.

<sup>(b)</sup> Including cumulative impairments of \$856 million in 2014, \$995 million in 2013 and \$882 million in 2012.



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As of December 31, 2014			
(M\$)	Gross value	Valuation allowance	Net value
Loans and advances <sup>(a)</sup>	3,998	(672)	3,326
Other	866		866
<b>Total</b>	<b>4,864</b>	<b>(672)</b>	<b>4,192</b>

As of December 31, 2013			
(M\$)	Gross value	Valuation allowance	Net value
Loans and advances <sup>(a)</sup>	4,073	(498)	3,575
Other	831		831
<b>Total</b>	<b>4,904</b>	<b>(498)</b>	<b>4,406</b>

As of December 31, 2012			
(M\$)	Gross value	Valuation allowance	Net value
Loans and advances <sup>(a)</sup>	3,421	(509)	2,912
Other	601		601
<b>Total</b>	<b>4,022</b>	<b>(509)</b>	<b>3,513</b>

<sup>(a)</sup> Excluding loans to equity affiliates.

Changes in the valuation allowance on loans and advances are detailed as follows:

For the year ended December 31,	Valuation allowance as of January 1,	Currency translation			Valuation allowance as of December 31,
		Increases	Decreases	adjustment and other variations	
(M\$)					
<b>2014</b>	<b>(498)</b>	<b>(63)</b>	<b>102</b>	<b>(213)</b>	<b>(672)</b>
2013	(509)	(21)	9	23	(498)
2012	(516)	(21)	23	5	(509)

**15) Inventories**

As of December 31, 2014			
(M\$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	2,697	(188)	2,509
Refined products	5,922	(422)	5,500
Chemicals products	1,119	(85)	1,034
Trading inventories	2,950		2,950
Other inventories	3,903	(700)	3,203
<b>Total</b>	<b>16,591</b>	<b>(1,395)</b>	<b>15,196</b>

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As of December 31, 2013			
(M\$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	4,515	(25)	4,490
Refined products	8,868	(153)	8,715
Chemicals products	1,616	(108)	1,508
Trading inventories	4,401		4,401
Other inventories	3,719	(736)	2,983
<b>Total</b>	<b>23,119</b>	<b>(1,022)</b>	<b>22,097</b>

As of December 31, 2012			
(M\$)	Gross value	Valuation allowance	Net value
Crude oil and natural gas	4,016	(22)	3,994
Refined products	9,459	(114)	9,345
Chemicals products	1,900	(124)	1,776
Trading inventories	4,990		4,990
Other inventories	3,457	(608)	2,849
<b>Total</b>	<b>23,822</b>	<b>(868)</b>	<b>22,954</b>

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Changes in the valuation allowance on inventories are as follows:

For the year ended December 31, (M\$)	Valuation allowance as of January 1,	Increase (net)	Currency	Valuation allowance as of December 31,
			translation adjustment and other variations	
<b>2014</b>	<b>(1,022)</b>	<b>(495)</b>	<b>122</b>	<b>(1,395)</b>
2013	(868)	(158)	4	(1,022)
2012	(736)	(123)	(9)	(868)

**16) Accounts receivable and other current assets**

As of December 31, 2014				
(M\$)		Gross value	Valuation allowance	Net value
<b>Accounts receivable</b>		<b>16,306</b>	<b>(602)</b>	<b>15,704</b>
Recoverable taxes		3,242		3,242
Other operating receivables		11,159	(367)	10,792
Prepaid expenses		1,609		1,609
Other current assets		59		59
<b>Other current assets</b>		<b>16,069</b>	<b>(367)</b>	<b>15,702</b>

As of December 31, 2013				
(M\$)		Gross value	Valuation allowance	Net value
<b>Accounts receivable</b>		<b>24,165</b>	<b>(743)</b>	<b>23,422</b>
Recoverable taxes		3,423		3,423
Other operating receivables		10,071	(154)	9,917
Prepaid expenses		1,482		1,482
Other current assets		70		70
<b>Other current assets</b>		<b>15,046</b>	<b>(154)</b>	<b>14,892</b>

As of December 31, 2012				
(M\$)		Gross value	Valuation allowance	Net value
<b>Accounts receivable</b>		<b>25,962</b>	<b>(623)</b>	<b>25,339</b>
Recoverable taxes		3,689		3,689
Other operating receivables		8,466	(340)	8,126
Prepaid expenses		1,432		1,432
Other current assets		60		60
<b>Other current assets</b>		<b>13,647</b>	<b>(340)</b>	<b>13,307</b>

Changes in the valuation allowance on Accounts receivable and Other current assets are as follows:

For the year ended December 31, (M\$)	Valuation allowance as of January 1,	Increase (net)	Currency	Valuation allowance as of December 31,
			translation adjustments and other variations	

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<b>Accounts receivable</b>				
<b>2014</b>	<b>(743)</b>	<b>46</b>	<b>95</b>	<b>(602)</b>
2013	(623)	(117)	(3)	(743)
2012	(625)	(72)	74	(623)
<b>Other current assets</b>				
<b>2014</b>	<b>(154)</b>	<b>(221)</b>	<b>8</b>	<b>(367)</b>
2013	(340)	163	23	(154)
2012	(365)	33	(8)	(340)

As of December 31, 2014, the net portion of the overdue receivables included in Accounts receivable and Other current assets was \$3,049 million, of which \$1,382 million was due in less than 90 days, \$593 million was due between 90 days and 6 months, \$226 million was due between 6 and 12 months and \$848 million was due after 12 months.

As of December 31, 2013, the net portion of the overdue receivables included in Accounts receivable and Other current assets was \$3,812 million, of which \$1,565 million was due in less than 90 days, \$599 million was due between 90 days and 6 months, \$754 million was due between 6 and 12 months and \$894 million was due after 12 months.



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As of December 31, 2012, the net portion of the overdue receivables included in Accounts receivable and Other current assets was \$4,541 million, of which \$2,672 million was due in less than 90 days, \$896 million was due

between 90 days and 6 months, \$343 million was due between 6 and 12 months and \$630 million was due after 12 months.

**17) Shareholders' equity****Number of TOTAL shares**

The Company's common shares, par value 2.50, as of December 31, 2014 are the only category of shares. Shares may be held in either bearer or registered form.

Double voting rights are granted to holders of shares that are fully-paid and held in the name of the same shareholder for at least two years, with due consideration for the total portion of the share capital represented. Double voting rights are also assigned to restricted shares in the event of an increase in share capital by incorporation of reserves, profits or premiums based on shares already held that are entitled to double voting rights.

Pursuant to the Company's bylaws (Statutes), no shareholder may cast a vote at a shareholders' meeting, either by himself or through an agent, representing more than 10% of the total voting rights for the Company's shares. This limit applies to the aggregated amount of voting rights held directly, indirectly or through voting proxies. However, in the case of double voting rights, this limit may be extended to 20%.

These restrictions no longer apply if any individual or entity, acting alone or in concert, acquires at least two-thirds of the total share capital of the Company, directly or indirectly, following a public tender offer for all of the Company's shares.

The authorized share capital amounts to 3,416,388,282 shares as of December 31, 2014 compared to 3,417,495,344 shares as of December 31, 2013 and 3,421,533,930 as of December 31, 2012. As of December 31, 2014 the share capital of TOTAL S.A. amounted to 5,963,168,812.50.

**Variation of the share capital**

<b>As of December 31, 2011</b>		<b>2,363,767,313</b>
Shares issued in connection with:	Capital increase as part of the global free share plan intended for the Group employees	1,366,950
	Exercise of TOTAL share subscription options	798,883
<b>As of December 31, 2012</b>		<b>2,365,933,146</b>
Shares issued in connection with:	Capital increase reserved for employees	10,802,215
	Exercise of TOTAL share subscription options	942,799
<b>As of December 31, 2013</b>		<b>2,377,678,160</b>
Shares issued in connection with:	Capital increase as part of the global free share plan intended for the Group employees	666,575
	Exercise of TOTAL share subscription options	6,922,790
<b>As of December 31, 2014<sup>(a)</sup></b>		<b>2,385,267,525</b>

<sup>(a)</sup> Including 109,361,413 treasury shares deducted from consolidated shareholders' equity.



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The variation of both weighted-average number of shares and weighted-average number of diluted shares respectively used in the calculation of earnings per share and fully-diluted earnings per share is detailed as follows:

	2014	2013	2012
<b>Number of shares as of January 1,</b>	<b>2,377,678,160</b>	<b>2,365,933,146</b>	<b>2,363,767,313</b>
<i>Number of shares issued during the year (pro rated)</i>			
Exercise of TOTAL share subscription options	3,768,183	248,606	663,429
Exercise of TOTAL share purchase options			
TOTAL performance shares	2,121,605	1,197,228	991,126
Global free TOTAL share plan <sup>(a)</sup>	333,637	227	683,868
Capital increase reserved for employees		7,201,477	
TOTAL shares held by TOTAL S.A. or by its subsidiaries and deducted from shareholders' equity	(111,042,073)	(110,230,889)	(110,304,173)
<b>Weighted-average number of shares</b>	<b>2,272,859,512</b>	<b>2,264,349,795</b>	<b>2,255,801,563</b>
<i>Dilutive effect</i>			
TOTAL share subscription and purchase options	2,119,759	554,224	247,527
TOTAL performance shares	3,578,225	4,924,693	7,748,805
Global free TOTAL share plan <sup>(a)</sup>	353,054	852,057	1,703,554
Capital increase reserved for employees	2,093,601	862,889	1,134,296
<b>Weighted-average number of diluted shares</b>	<b>2,281,004,151</b>	<b>2,271,543,658</b>	<b>2,266,635,745</b>

<sup>(a)</sup> The Board of Directors approved on May 21, 2010 the implementation and conditions of a global free share plan intended for the Group employees.

**Capital increase reserved for Group employees**

The Combined General Meeting of May 16, 2014, delegated to the Board of Directors in its fourteenth resolution, the authority to carry out, a capital increase, in one or more occasions within a maximum period of twenty-six months, reserved for employees belonging to an employee savings plan.

The Combined General Meeting of May 16, 2014, also delegated to the Board of Directors, in its fifteenth resolution, the powers necessary to accomplish a capital increase, in one or more occasions within a maximum period of eighteen months, with the objective of providing employees with their registered office located outside France with benefits comparable to those granted to the employees included in the fourteenth resolution of the Combined General Meeting of May 16, 2014.

Pursuant to these delegations, the Board of Directors, during its meeting on July 29, 2014, decided to proceed with a capital increase reserved for employees that included a classic offering and a leveraged offering depending on the employees' choice, within the limit of 18 million shares with dividend rights as of January 1, 2014. All powers have been delegated to the Chief Executive Officer to determine the opening and closing of the subscription period and the subscription price. This capital increase, opened in 2014, is expected to be completed before the General Meeting of 2015.

The prior capital increase reserved for employees of the Group was decided by the Board of Directors on

September 18, 2012, under the terms of the authorization of the Combined General Meeting of May 11, 2012, and resulted in the subscription of 10,802,215 shares with a par value of 2.50 at a unit price of 30.70. The issuance of the shares was acknowledged on April 25, 2013.

**Capital increase as part of a global free share plan intended for Group employees**

The Combined General Meeting of May 16, 2008, delegated to the Board of Directors in its seventeenth resolution, the authority to grant, in one or more occasions within a maximum period of thirty-eight months, restricted shares to employees and executive officers of the Company or companies outside France affiliated with the Company, within a limit of 0.8% of the outstanding share capital of the Company as of the date of the decision of the Board of Directors to grant such shares.

Pursuant to this delegation, the Board of Directors, during its meeting on May 21, 2010, determined the terms of a global free share plan intended for Group employees and granted the Chairman and Chief Executive Officer all powers necessary to implement this plan.

As a result, and in accordance with the terms defined by the Board of Directors during its meeting on May 21, 2010, the Chairman and Chief Executive Officer noted:

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on July 2, 2012, the issuance and the final allocation of 1,366,950 shares with a nominal value of 2.50 to the designated beneficiaries after the expiration of the two-year acquisition period; and

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on July 1, 2014, the issuance and the final allocation of 666,575 shares with a nominal value of 2.50 after the expiration of the four-year acquisition period. There are no additional shares that may be issued as part of this plan.

### ***Share cancellation***

The Group did not proceed with a reduction of capital by cancellation of shares held by the Company during the fiscal years 2012, 2013 and 2014.

### ***Treasury shares (TOTAL shares held by TOTAL S.A.)***

As of December 31, 2014, TOTAL S.A. held 9,030,145 of its own shares, representing 0.38% of its share capital, detailed as follows:

8,946,930 shares allocated to TOTAL share grant plans for Group employees;

83,215 shares intended to be allocated to new TOTAL share purchase option plans or to new share grant plans. These shares were deducted from the consolidated shareholders' equity.

As of December 31, 2013, TOTAL S.A. holds 8,883,180 of its own shares, representing 0.37% of its share capital, detailed as follows:

8,764,020 shares allocated to TOTAL share grant plans for Group employees; and

119,160 shares intended to be allocated to new TOTAL share purchase option plans or to new share grant plans. These shares are deducted from the consolidated shareholders' equity.

As of December 31, 2012, TOTAL S.A. holds 8,060,371 of its own shares, representing 0.34% of its share capital, detailed as follows:

7,994,470 shares allocated to TOTAL share grant plans for Group employees; and

65,901 shares intended to be allocated to new TOTAL share purchase option plans or to new share grant plans. These shares are deducted from the consolidated shareholders' equity.

### ***TOTAL shares held by Group subsidiaries***

As of December 31, 2014, 2013 and 2012, TOTAL S.A. held indirectly through its subsidiaries 100,331,268 of its own shares, representing 4.21% of its share capital as of December 31, 2014, 4.22% of its share capital as of December 31, 2013 and 4.24% of its share capital as of December 31, 2012, detailed as follows:

2,023,672 shares held by a consolidated subsidiary, Total Nucléaire, 100% indirectly controlled by TOTAL S.A.; and

98,307,596 shares held by subsidiaries of Elf Aquitaine (Financière Valorgest, Sogapar and Fingestval), 100% indirectly controlled by TOTAL S.A. These shares are deducted from the consolidated shareholders' equity.

### ***Dividend***

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TOTAL S.A. paid on March 27, 2014, the third quarterly interim dividend of 0.59 per share for the fiscal year 2013 (the ex-dividend date was March 24, 2014). TOTAL S.A. also paid on June 5, 2014, the balance of the dividend of 0.61 per share for the 2013 fiscal year (the ex-dividend date was June 2, 2014).

In addition, TOTAL S.A. paid two quarterly interim dividends for the fiscal year 2014:

the first quarterly interim dividend of 0.61 per share for the fiscal year 2014, decided by the Board of Directors on April 29, 2014, was paid on September 26, 2014 (the ex-dividend date was September 23, 2014); and

the second quarterly interim dividend of 0.61 per share for the fiscal year 2014, decided by the Board of Directors on July 29, 2014, was paid on December 17, 2014 (the ex-dividend date was December 15, 2014).

The Board of Directors, during its October 28, 2014 meeting, decided to set the third quarterly interim dividend for the fiscal year 2014 at 0.61 per share. This interim dividend will be paid on March 25, 2015 (the ex-dividend date will be March 23, 2015).

A resolution will be submitted at the shareholders meeting on May 29, 2015 to pay a dividend of 2.44 per share for the 2014 fiscal year, i.e. a balance of 0.61 per share to be distributed. A resolution will also be submitted at the shareholders meeting on May 29, 2015, the option for shareholders to receive the fourth quarter dividend in shares or in cash. The payment of the dividend in cash or

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the delivery of shares in lieu of cash is set for July 1st 2015 (the ex-dividend date will be June 8, 2015). The number of shares issued in lieu of the cash dividend will be based on the dividend amount divided by a share price equal to 90% of the average Euronext Paris opening price of the shares for the 20 trading days preceding the shareholders meeting reduced by the amount of the dividend remainder.

***Paid-in surplus***

In accordance with French law, the paid-in surplus corresponds to premiums related to shares, contributions or mergers of the parent company which can be capitalized or used to offset losses if the legal reserve has reached its minimum required level. The amount of the paid-in surplus may also be distributed subject to taxation except in cases of a refund of shareholder contributions to.

As of December 31, 2014, paid-in surplus relating to TOTAL S.A. amounted to 28,319 million ( 28,020 million as of December 31, 2013 and 27,684 million as of December 31, 2012).

***Reserves***

Under French law, 5% of net income must be transferred to the legal reserve until the legal reserve reaches 10% of the nominal value of the share capital. This reserve cannot be distributed to the shareholders other than upon liquidation but can be used to offset losses.

If wholly distributed, the unrestricted reserves of the parent company would be taxed for an approximate amount of \$755 million as of December 31, 2014 (\$754 million as of December 31, 2013 and \$693 million as of December 31, 2012) with regards to additional corporation tax to be applied on regulatory reserves so that they become distributable.

Furthermore, the additional tax to corporate income tax of 3%, due on dividends distributed by French companies or foreign organizations subject to corporate income in France, established by the second corrective finance act for 2012 would be payable for an amount of \$553 million (\$538 million as of December 31, 2013 and \$482 million as of December 31, 2012).

***Other comprehensive income***

Detail of other comprehensive income showing both items potentially reclassifiable and those not potentially reclassifiable from equity to net income is presented in the table below:

For the year ended December 31, (M\$)	2014	2013	2012
Actuarial gains and losses	(1,526)	682	(1,171)
Tax effect	580	(287)	465
Currency translation adjustment generated by the parent company	(9,039)	3,129	1,324
<b>Subtotal items not potentially reclassifiable to profit &amp; loss</b>	<b>(9,985)</b>	<b>3,524</b>	<b>618</b>
<b>Currency translation adjustment</b>	<b>4,245</b>	<b>(1,925)</b>	<b>(397)</b>
Unrealized gain/(loss) of the period	4,413	(1,972)	(392)
Less gain/(loss) included in net income	168	(47)	5
<b>Available for sale financial assets</b>	<b>(29)</b>	<b>33</b>	<b>(435)</b>
Unrealized gain/(loss) of the period	(39)	33	80
Less gain/(loss) included in net income	(10)		515
<b>Cash flow hedge</b>	<b>97</b>	<b>156</b>	<b>83</b>
Unrealized gain/(loss) of the period	(198)	242	195
Less gain/(loss) included in net income	(295)	86	112
<b>Share of other comprehensive income of equity affiliates, net amount</b>	<b>(1,538)</b>	<b>(805)</b>	<b>249</b>
<b>Other</b>	<b>3</b>	<b>(12)</b>	<b>(18)</b>
Unrealized gain/(loss) of the period	3	(12)	(18)
Less gain/(loss) included in net income			
<b>Tax effect</b>	<b>(18)</b>	<b>(62)</b>	<b>82</b>
<b>Subtotal items potentially reclassifiable to profit &amp; loss</b>	<b>2,760</b>	<b>(2,615)</b>	<b>(436)</b>
<b>Total other comprehensive income, net amount</b>	<b>(7,225)</b>	<b>909</b>	<b>182</b>





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The currency translation adjustment by currency is detailed in the following table:

As of December 31, 2014 (M\$)	Total	Euro	Pound sterling	Ruble	Other currencies
Currency translation adjustment generated by the parent company	(9,039)	(9,039)			
Currency translation adjustment	4,245	5,474	(372)	(22)	(835)
Currency translation adjustment of equity affiliates	(1,521)	1,127	21	(2,586)	(83)
Total currency translation adjustment recognized in comprehensive income	(6,315)	(2,438)	(351)	(2,608)	(918)

As of December 31, 2013 (M\$)	Total	Euro	Pound sterling	Ruble	Other currencies
Currency translation adjustment generated by the parent company	3,129	3,129			
Currency translation adjustment	(1,925)	(1,632)	153	(2)	(444)
Currency translation adjustment of equity affiliates	(768)	(329)	(8)	(441)	10
Total currency translation adjustment recognized in comprehensive income	436	1,168	145	(443)	(434)

As of December 31, 2012 (M\$)	Total	Euro	Pound sterling	Ruble	Other currencies
Currency translation adjustment generated by the parent company	1,324	1,324			
Currency translation adjustment	(397)	(829)	254		178
Currency translation adjustment of equity affiliates	247	(127)	(15)	301	88
Total currency translation adjustment recognized in comprehensive income	1,174	368	239	301	266

Tax effects relating to each component of other comprehensive income are as follows:

For the year ended	2014			2013			2012		
	Pre-tax amount	Tax effect	Net amount	Pre-tax amount	Tax effect	Net amount	Pre-tax amount	Tax effect	Net amount
December 31, (M\$)									
Actuarial gains and losses	(1,526)	580	(946)	682	(287)	395	(1,171)	465	(706)
Currency translation adjustment generated by the parent company	(9,039)		(9,039)	3,129		3,129	1,324		1,324
<b>Subtotal items not potentially reclassifiable to profit &amp; loss</b>	<b>(10,565)</b>	<b>580</b>	<b>(9,985)</b>	<b>3,811</b>	<b>(287)</b>	<b>3,524</b>	<b>153</b>	<b>465</b>	<b>618</b>
Currency translation adjustment	4,245		4,245	(1,925)		(1,925)	(397)		(397)
Available for sale financial assets	(29)	15	(14)	33	(8)	25	(435)	115	(320)
Cash flow hedge	97	(33)	64	156	(54)	102	83	(33)	50
Share of other comprehensive income of equity affiliates, net amount	(1,538)		(1,538)	(805)		(805)	249		249
Other	3		3	(12)		(12)	(18)		(18)
<b>Subtotal items potentially reclassifiable to profit &amp; loss</b>	<b>2,778</b>	<b>(18)</b>	<b>2,760</b>	<b>(2,553)</b>	<b>(62)</b>	<b>(2,615)</b>	<b>(518)</b>	<b>82</b>	<b>(436)</b>
<b>Total other comprehensive income</b>	<b>(7,787)</b>	<b>562</b>	<b>(7,225)</b>	<b>1,258</b>	<b>(349)</b>	<b>909</b>	<b>(365)</b>	<b>547</b>	<b>182</b>
<b>Non-controlling interests</b>									

As of December 31, 2014, no subsidiary has non-controlling interests that would have a material effect on the Group financial statements.

**18) Employee benefits obligations**

Liabilities for employee benefits obligations consist of the following:

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As of December 31, (M\$)	2014	2013	2012
Pension benefits liabilities	3,751	3,095	3,656
Other benefits liabilities	757	788	927
Restructuring reserves (early retirement plans)	250	352	356
<b>Total</b>	<b>4,758</b>	<b>4,235</b>	<b>4,939</b>
Net liabilities relating to assets held for sale	208		12

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### **Description of plans and risk management**

The Group operates for the benefit of its current and former employees both defined benefit plans and defined contribution plans.

The Group recognized a charge of \$157 million for defined contribution plans in 2014 (\$129 million in 2013).

The Group's main defined benefit pension plans are located in France, the United Kingdom, the United States, Belgium and Germany. Their main characteristics, depending on the country-specific regulatory environment, are the following:

the benefits are usually based on the final salary and seniority;

they are usually funded (pension fund or insurer);

they are usually closed to new employees who benefit from defined contribution pension plans; and

they are paid in annuity or in lump sum.

The pension benefits include also termination indemnities and early retirement benefits. The other benefits are employer contributions to post-employment medical care.

In order to manage the inherent risks, the Group has implemented a dedicated governance framework to ensure the supervision of the different plans. These governance rules provide for:

the Group's representation in key governance bodies or monitoring committees;

the principles of the funding policy;

the general investment policy, including for most plans the establishment of a monitoring committee to define and follow the investment strategy and performance and to ensure the principles in respect of investment allocation are respected;

a procedure to approve the establishment of new plans or the amendment of existing plans;

principles of administration, communication and reporting.

### **Change in benefit obligations and plan assets**

The fair value of the defined benefit obligation and plan assets in the Consolidated Financial Statements is detailed as follows:

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Pension benefits

Other benefits

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As of December 31, (M\$)	2014	2013	2012	2014	2013	2012
<b>Change in benefit obligation</b>						
Benefit obligation at beginning of year	14,310	14,372	12,061	788	927	813
Current service cost	281	290	231	16	21	18
Interest cost	560	515	551	31	31	37
Past service cost	(84)	12	262	(4)	(68)	10
Settlements	1	(90)			(1)	
Plan participants' contributions	11	10	12			
Benefits paid	(694)	(717)	(705)	(38)	(45)	(47)
Actuarial losses (gains)	1,281	(362)	1,563	127	(92)	75
Foreign currency translation and other	(1,369)	280	397	(75)	15	21
<b>Benefit obligation at year-end</b>	<b>14,297</b>	<b>14,310</b>	<b>14,372</b>	<b>845</b>	<b>788</b>	<b>927</b>
<i>Of which plans entirely or partially funded</i>	13,448	13,283	13,086			
<i>Of which plans not funded</i>	849	1,027	1,286	845	788	927
<b>Change in fair value of plan assets</b>						
Fair value of plan assets at beginning of year	(11,293)	(10,750)	(9,094)			
Interest income	(463)	(408)	(435)			
Actuarial losses (gains)	111	(249)	(470)			
Settlements		91				
Plan participants' contributions	(11)	(10)	(12)			
Employer contributions	(384)	(298)	(1,011)			
Benefits paid	563	602	580			
Foreign currency translation and other	979	(271)	(308)			
<b>Fair value of plan assets at year-end</b>	<b>(10,498)</b>	<b>(11,293)</b>	<b>(10,750)</b>			
<b>Unfunded status</b>	<b>3,799</b>	<b>3,017</b>	<b>3,622</b>	<b>845</b>	<b>788</b>	<b>927</b>
Asset ceiling	34	29	20			
<b>Net recognized amount</b>	<b>3,833</b>	<b>3,046</b>	<b>3,642</b>	<b>845</b>	<b>788</b>	<b>927</b>
Pension benefits and other benefits liabilities	3,751	3,095	3,656	757	788	927
Other non-current assets	(38)	(49)	(26)			
Net benefit liabilities relating to assets held for sale	120		12	88		

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The amounts recognized in the consolidated income statement and the consolidated statement of comprehensive income for defined benefit plans are detailed as follows:

For the year ended December 31, (M\$)	Pension benefits			Other benefits		
	2014	2013	2012	2014	2013	2012
Current service cost	281	290	231	16	21	18
Past service cost	(84)	12	262	(4)	(68)	10
Settlements	1	1			(1)	
Net interest cost	97	107	116	31	31	37
<b>Benefit amounts recognized on Profit &amp; Loss</b>	<b>295</b>	<b>410</b>	<b>609</b>	<b>43</b>	<b>(17)</b>	<b>65</b>
Actuarial (Gains) Losses						
* Effect of changes in demographic assumptions	178	5	41	18	(9)	(1)
* Effect of changes in financial assumptions	1,295	(299)	1,323	129	(68)	86
* Effect of experience adjustments	(192)	(68)	199	(20)	(15)	(10)
* Actual return on plan assets (excluding interest income)	111	(249)	(470)			
Effect of asset ceiling	7	21	3			
<b>Benefit amounts recognized on Equity</b>	<b>1,399</b>	<b>(590)</b>	<b>1,096</b>	<b>127</b>	<b>(92)</b>	<b>75</b>
<b>Total benefit amounts recognized on other comprehensive income</b>	<b>1,694</b>	<b>(180)</b>	<b>1,705</b>	<b>170</b>	<b>(109)</b>	<b>140</b>

The past service cost recognized in 2012 for \$262 million is mainly due to the amendment of certain French plans.

**Expected future cash out flow**

The average duration of accrued benefits is approximately 15 years for defined pension benefits and 18 years for other benefits. The Group expects to pay contributions of \$212 million in respect of funded pension plans in 2015.

Estimated future benefits either financed from plan assets or directly paid by the employer are detailed as follows:

Estimated future payments (M\$)	Pension benefits	Other benefits
2015	768	34
2016	759	35
2017	967	35
2018	747	35
2019	792	36
2020-2024	4,202	181

**Type of assets**

Asset allocation As of December 31,	Pension benefits		
	2014	2013	2012
Equity securities	29%	30%	29%
Debt securities	43%	64%	64%
Monetary	3%	2%	3%
Annuity contracts	21%		
Real estate	4%	4%	4%

Investments on equity and debt markets are quoted on active markets.

An annuity purchase transaction (buy-in) was completed during 2014 to cover the risks for part of the beneficiaries population in the United Kingdom. This investment resulted in an actuarial loss of \$(471) million recognized in other comprehensive income.

**Table of Contents****Main actuarial assumptions and sensitivity analysis**

Assumptions used to determine benefits obligations As of December 31,	Pension benefits			Other benefits		
	2014	2013	2012	2014	2013	2012
Discount rate (weighted average for all regions)	<b>3.06%</b>	<b>4.14%</b>	<b>3.79%</b>	<b>3.12%</b>	<b>4.14%</b>	<b>3.82%</b>
<i>Of which Euro zone</i>	1.95%	3.40%	3.20%	2.22%	3.44%	3.19%
<i>Of which United States</i>	4.00%	4.74%	4.00%	4.00%	4.71%	4.00%
<i>Of which United Kingdom</i>	3.75%	4.50%	4.25%			
Inflation rate (weighted average for all regions)	<b>2.44%</b>	<b>2.67%</b>	<b>2.24%</b>			
<i>Of which Euro zone</i>	1.75%	2.00%	2.00%			
<i>Of which United Kingdom</i>	3.25%	3.50%	2.75%			

The discount rate retained is determined by reference to the high quality rates for AA-rated corporate bonds for a duration equivalent to that of the obligations. It derives from a benchmark per monetary area of different market data at the closing date.

A 0.5% increase or decrease in discount rates all other things being equal would have the following approximate impact on the benefit obligation:

(M\$)	0.5% increase	0.5% decrease
Benefit obligation as of December 31, 2014	(1,031)	1,167
A 0.5% increase or decrease in inflation rates all other things being equal would have the following approximate impact on the benefit obligation:		

(M\$)	0.5% increase	0.5% decrease
Benefit obligation as of December 31, 2014	718	(636)

**19) Provisions and other non-current liabilities**

As of December 31, (M\$)	2014	2013	2012
Litigations and accrued penalty claims	1,040	862	1,227
Provisions for environmental contingencies	994	1,160	733
Asset retirement obligations	13,121	12,808	10,059
Other non-current provisions	1,528	1,522	1,357
Other non-current liabilities	862	1,165	1,909
<b>Total</b>	<b>17,545</b>	<b>17,517</b>	<b>15,285</b>

In 2014, litigation reserves mainly include a provision of \$1,040 million of which \$861 million is in the Upstream, notably in Angola and Nigeria.

In 2014, other non-current provisions mainly include:

Provisions related to sales of activities in the Refining & Chemicals and Marketing & Services segments for \$241 million as of December 31, 2014;

Provisions for financial risks related to non-consolidated and equity consolidated affiliates for \$228 million as of December 31, 2014; and

The contingency reserve regarding guarantees granted in relation to solar panels of SunPower for \$155 million as of December 31, 2014.

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In 2014, other non-current liabilities mainly include debts (whose maturity is more than one year) related to fixed assets acquisitions. This heading is mainly composed of a \$32 million debt related to the acquisition of an interest in the liquids-rich area of the Utica shale play.

In 2013, litigation reserves mainly included a provision of \$862 million of which \$698 million is in the Upstream, notably in Angola and Nigeria.

In 2013, other non-current provisions mainly included:

Provisions related to restructuring activities in the Refining & Chemicals and Marketing & Services segments for \$275 million as of December 31, 2013;

Provisions for financial risks related to non-consolidated and equity consolidated affiliates for \$238 million as of December 31, 2013; and

The contingency reserve regarding guarantees granted in relation to solar panels of SunPower for \$149 million as of December 31, 2013.

In 2013, other non-current liabilities mainly included debts (whose maturity is more than one year) related to fixed assets acquisitions. This heading was mainly composed of a \$127 million debt related to the acquisition of an interest in the liquids-rich area of the Utica shale play.

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In 2012, litigation reserves mainly included a provision of \$398 million in relation to a transaction in progress with the United States Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States (see Note 32 to the Consolidated Financial Statements). It also included a provision covering risks concerning antitrust investigations related to Arkema for an amount of \$22 million as of December 31, 2012.

In 2012, other non-current provisions mainly included:

Provisions related to restructuring activities in the Refining & Chemicals and Marketing & Services segments for \$259 million as of December 31, 2012;  
Provisions for financial risks related to non-consolidated and equity consolidated affiliates for \$193 million as of December 31, 2012; and

The contingency reserve regarding to guarantees granted in relation to solar panels of SunPower for \$117 million as of December 31, 2012.

In 2012, other non-current liabilities mainly included debts (whose maturity is more than one year) related to fixed assets acquisitions. This heading was mainly composed of a \$973 million debt related to the acquisition of an interest in the liquids-rich area of the Utica shale play.

Other risks and commitments that give rise to contingent liabilities are described in note 32 to the Consolidated Financial Statements.

**Changes in provisions and other non-current liabilities**

Changes in provisions and other non-current liabilities are as follows:

(M\$)	As of January 1,	Allowances	Reversals	Currency translation adjustment	Other	As of December 31,
<b>2014</b>	<b>17,517</b>	<b>1,463</b>	<b>(1,029)</b>	<b>(1,228)</b>	<b>822</b>	<b>17,545</b>
2013	15,285	1,738	(1,347)	(64)	1,905	17,517
2012	14,114	1,564	(1,140)	363	384	15,285

**Allowances**

In 2014, allowances for the period (\$1,463 million) mainly includes:

Asset retirement obligations for \$543 million (accretion);

Environmental contingencies for \$69 million in the Marketing & Services and Refining & Chemicals segments;

Provisions related to restructuring of activities for \$38 million.

In 2013, allowances for the period (\$1,738 million) mainly included:

Asset retirement obligations for \$584 million (accretion);



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Environmental contingencies for \$475 million in the Marketing & Services and Refining & Chemicals segments, of which \$361 million is related to the Carling site in France;

Provisions related to restructuring of activities for \$155 million.  
In 2012, allowances of the period (\$1,564 million) mainly included:

Asset retirement obligations for \$520 million (accretion);

Environmental contingencies for \$95 million in the Marketing & Services and Refining & Chemicals segments;

Provisions related to restructuring of activities for \$95 million.

A provision of \$398 million in relation to a transaction in progress with the United States Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States (see Note 32 to the Consolidated Financial Statements).

### **Reversals**

In 2014, reversals of the period (\$1,029 million) are mainly related to the following incurred expenses:

Provisions for asset retirement obligations for \$440 million;

Environmental contingencies written back for \$98 million;

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Provisions for restructuring and social plans written back for \$80 million.

In 2013, reversals of the period (\$1,347 million) were mainly related to the following incurred expenses:

A provision of \$398 million in relation to a transaction in progress with the United States Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States (see Note 32 to the Consolidated Financial Statements).

Provisions for asset retirement obligations for \$381 million;

Environmental contingencies written back for \$99 million;

Provisions for restructuring and social plans written back for \$100 million.

In 2012, reversals of the period (\$1,140 million) were mainly related to the following incurred expenses:

Provisions for asset retirement obligations for \$403 million;

Environmental contingencies written back for \$140 million;

The contingency reserve related to the Buncefield depot explosion (civil liability), written back for \$104 million; and

Provisions for restructuring and social plans written back for \$142 million.

**Changes in the asset retirement obligation**

Changes in the asset retirement obligation are as follows:

(M\$)	As of January 1,	Accretion	Revision in estimates	New obligations	Spending on existing obligations	Currency translation adjustment	Other	As of December 31,
<b>2014</b>	<b>12,808</b>	<b>543</b>	<b>1,007</b>	<b>359</b>	<b>(440)</b>	<b>(902)</b>	<b>(254)</b>	<b>13,121</b>
2013	10,059	584	2,196	552	(381)	(156)	(46)	12,808
2012	8,907	520	236	149	(403)	307	343	10,059

In 2014 the heading "Revision in estimates" includes additional provisions in respect of asset restitution costs.

In 2013 the heading "Revision in estimates" included additional provisions in respect of asset restitution costs and the impact of the revision of the discount rate.

In 2012 the heading "Other" included a \$495 million increase in provisions to cover the costs of abandonment

of wells in the Elgin-Franklin field (Great Britain) that will not return to production, and a \$235 million increase in provisions for the restoration of the Lacq site in France on which activities are going to be stopped. These amounts are partially offset by sales of assets notably in Great Britain and Norway that have been reclassified in accordance with IFRS 5 "Non-current assets held for sale and discontinued operations".

**20) Financial debt and related financial instruments***A) Non-current financial debt and related financial instruments*

As of December 31, 2014 (M\$) (Assets) / Liabilities	Secured	Unsecured	Total
Non-current financial debt	798	44,683	45,481
<i>of which hedging instruments of non-current financial debt (liabilities)</i>		944	944
Hedging instruments of non-current financial debt (assets) <sup>(a)</sup>		(1,319)	(1,319)
<b>Non-current financial debt net of hedging instruments</b>	<b>798</b>	<b>43,364</b>	<b>44,162</b>
Bonds after fair value hedge		36,558	36,558
Fixed rate bonds and bonds after cash flow hedge		6,155	6,155
Bank and other, floating rate	265	395	660
Bank and other, fixed rate	215	256	471
Financial lease obligations	318		318
<b>Non-current financial debt net of hedging instruments</b>	<b>798</b>	<b>43,364</b>	<b>44,162</b>

<sup>(a)</sup> See the description of these hedging instruments in Notes 1 paragraph M(iii) Long-term financing , 28 and 29 to the Consolidated Financial Statements.

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As of December 31, 2013 (M\$)

(Assets) / Liabilities	Secured	Unsecured	Total
Non-current financial debt	717	33,857	34,574
<i>of which hedging instruments of non-current financial debt (liabilities)</i>		325	325
Hedging instruments of non-current financial debt (assets) <sup>(a)</sup>		(1,418)	(1,418)
<b>Non-current financial debt net of hedging instruments</b>	<b>717</b>	<b>32,439</b>	<b>33,156</b>
Bonds after fair value hedge		25,965	25,965
Fixed rate bonds and bonds after cash flow hedge		6,079	6,079
Bank and other, floating rate	173	247	420
Bank and other, fixed rate	158	148	306
Financial lease obligations	386		386
<b>Non-current financial debt net of hedging instruments</b>	<b>717</b>	<b>32,439</b>	<b>33,156</b>

(a) See the description of these hedging instruments in Notes 1 paragraph M(iii) Long-term financing, 28 and 29 to the Consolidated Financial Statements.

As of December 31, 2012 (M\$)

(Assets) / Liabilities	Secured	Unsecured	Total
Non-current financial debt	941	28,451	29,392
<i>of which hedging instruments of non-current financial debt (liabilities)</i>		14	14
Hedging instruments of non-current financial debt (assets) <sup>(a)</sup>		(2,145)	(2,145)
<b>Non-current financial debt net of hedging instruments</b>	<b>941</b>	<b>26,306</b>	<b>27,247</b>
Bonds after fair value hedge		20,095	20,095
Fixed rate bonds and bonds after cash flow hedge		5,943	5,943
Bank and other, floating rate	404	38	442
Bank and other, fixed rate	107	221	328
Financial lease obligations	430	9	439
<b>Non-current financial debt net of hedging instruments</b>	<b>941</b>	<b>26,306</b>	<b>27,247</b>

(a) See the description of these hedging instruments in Notes 1 paragraph M(iii) Long-term financing, 28 and 29 to the Consolidated Financial Statements.

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The fair value of bonds, as of December 31, 2014, after taking into account currency and interest rates swaps, is detailed as follows:

Bonds after fair value hedge (M\$)	Currency of issuance	Fair value after hedging as of December 31, 2014	Fair value after hedging as of December 31, 2013	Fair value after hedging as of December 31, 2012	Range of maturities	Range of initial rate before hedging instruments
Bond	FRF			168	2013	5.000%
Bond	USD	16,385	12,733	8,833	2013 to 2024	0.750% to 5.750%
Bond	USD	2,385	2,553	1,728	2013 to 2020	USLIBOR 3 month + 0.03%
						to USLIBOR 3 month + 0.75%
Bond	CHF	2,161	2,234	2,863	2013 to 2024	1.010% to 3.135%
Bond	NZD	251	138	137	2014 to 2020	4.750% to 6.750%
Bond	AUD	1,689	1,309	1,457	2013 to 2021	3.750% to 7.500%
Bond	EUR	12,127	7,956	6,613	2013 to 2044	1.125% to 4.875%
Bond	EUR	1,638	390		2020	EURIBOR 3 month + 0.30%
						to EURIBOR 3 month + 0.31%
Bond	CAD	288	339	244	2014 to 2020	2.000% to 2.500%
Bond	GBP	1,662	1,241	1,899	2013 to 2020	2.250% to 5.500%
Bond	GBP	468			2019	GBLIB3M + 0.30%
Bond	JPY		110	106	2014	1.505% to 1.723%
Bond	JPY			197	2013	EURIBOR 6 month + 0.008%
Bond	NOK	566	565	462	2016 to 2018	2.250% to 4.000%
Bond	HKD	213	150	144	2014 to 2025	2.920% to 4.180%
Bond	SEK	95	94	91	2016	3.625%
Current portion (less than one year)		(4,068)	(4,545)	(5,545)		
<b>Total Principal Financing Entities (a)+(b)+(c)</b>		<b>35,860</b>	<b>25,267</b>	<b>19,397</b>		
Other Consolidated Subsidiaries		698	698	698		
<b>Total bonds after fair value hedge</b>		<b>36,558</b>	<b>25,965</b>	<b>20,095</b>		

Bonds after cash flow hedge and fixed rate bonds (M\$)	Currency of issuance	Fair value after hedging as of December 31, 2014	Fair value after hedging as of December 31, 2013	Fair value after hedging as of December 31, 2012	Range of maturities	Range of initial rate before hedging instruments
Bond	EUR	1,986	2,007	2,147	2019 to 2024	4.875% to 5.125%
Bond	USD	3,750	3,749	3,250	2020 to 2023	2.750% to 4.450%
Bond	CNY	172	177		2018	3.750%
Current portion (less than one year)						
<b>Total Principal Financing Entities (a)+(b)+(c)</b>		<b>5,908</b>	<b>5,933</b>	<b>5,397</b>		
Other Consolidated Subsidiaries		247	146	546		
<b>Total bonds after cash flow hedge and fixed rate bonds</b>		<b>6,155</b>	<b>6,079</b>	<b>5,943</b>		

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*All debt securities issued through the following subsidiaries are fully and unconditionally guaranteed by TOTAL S.A. as to payment of principal, premium, if any, interest and any other amounts due:*

- (a) TOTAL CAPITAL is a wholly-owned indirect subsidiary of TOTAL S.A. (with the exception of one share held by each member of its Board of Directors). It acts as a financing vehicle for the Group.*
- (b) TOTAL CAPITAL CANADA Ltd. is a wholly-owned direct subsidiary of TOTAL S.A. It acts as a financing vehicle for the activities of the Group in Canada.*
- (c) TOTAL CAPITAL INTERNATIONAL is a wholly-owned direct subsidiary of TOTAL S.A. It acts as a financing vehicle for the Group.*

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**Table of Contents****Loan repayment schedule (excluding current portion)**

As of December 31, 2014 (M\$)	Non-current financial debt	of which hedging instruments of non-current financial debt (liabilities)	Hedging instruments of non-current financial debt (assets)	Non-current financial debt net of hedging instruments	%
2016	4,987	73	(194)	4,793	11%
2017	4,689	132	(142)	4,547	10%
2018	4,784	108	(333)	4,451	10%
2019	4,973	62	(208)	4,765	11%
2020 and beyond	26,048	569	(442)	25,606	58%
<b>Total</b>	<b>45,481</b>	<b>944</b>	<b>(1,319)</b>	<b>44,162</b>	<b>100%</b>

As of December 31, 2013 (M\$)	Non-current financial debt	of which hedging instruments of non-current financial debt (liabilities)	Hedging instruments of non-current financial debt (assets)	Non-current financial debt net of hedging instruments	%
2015	4,999	4	(352)	4,647	14%
2016	4,745	26	(217)	4,528	14%
2017	4,267	77	(108)	4,159	12%
2018	4,670	51	(309)	4,361	13%
2019 and beyond	15,893	167	(432)	15,461	47%
<b>Total</b>	<b>34,574</b>	<b>325</b>	<b>(1,418)</b>	<b>33,156</b>	<b>100%</b>

As of December 31, 2012 (M\$)	Non-current financial debt	of which hedging instruments of non- current financial debt (liabilities)	Hedging instruments of non-current financial debt (assets)	Non-current financial debt net of hedging instruments	%
2014	5,493	1	(437)	5,056	19%
2015	5,150	10	(578)	4,572	17%
2016	3,081		(277)	2,804	10%
2017	4,321		(197)	4,124	15%
2018 and beyond	11,347	3	(656)	10,691	39%
<b>Total</b>	<b>29,392</b>	<b>14</b>	<b>(2,145)</b>	<b>27,247</b>	<b>100%</b>

**Analysis by currency and interest rate**

These analyses take into account interest rate and foreign currency swaps to hedge non-current financial debt.

As of December 31, (M\$)	2014	%	2013	%	2012	%
U.S. Dollar	41,369	94%	27,908	84%	18,060	66%
Euro	2,428	5%	4,885	15%	7,445	27%
Other currencies	365	1%	363	1%	1,742	7%
<b>Total</b>	<b>44,162</b>	<b>100%</b>	<b>33,156</b>	<b>100%</b>	<b>27,247</b>	<b>100%</b>

As of December 31, (M\$)	2014	%	2013	%	2012	%
Fixed rate	6,944	16%	6,771	20%	6,710	25%
Floating rate	37,218	84%	26,385	80%	20,537	75%
<b>Total</b>	<b>44,162</b>	<b>100%</b>	<b>33,156</b>	<b>100%</b>	<b>27,247</b>	<b>100%</b>





**Table of Contents****B) Current financial assets and liabilities**

Current borrowings consist mainly of commercial paper or treasury bills or drawings on bank loans. These instruments bear interest at rates that are close to market rates.

As of December 31, (M\$)	2014	2013	2012
<b>(Assets) / Liabilities</b>			
Current financial debt <sup>(a)</sup>	6,164	5,780	8,434
Current portion of non-current financial debt	4,778	5,413	6,101
<b>Current borrowings (note 28)</b>	<b>10,942</b>	<b>11,193</b>	<b>14,535</b>
Current portion of hedging instruments of debt (liabilities)	133	314	111
Other current financial instruments (liabilities)	47	67	121
<b>Other current financial liabilities (note 28)</b>	<b>180</b>	<b>381</b>	<b>232</b>
Current deposits beyond three months	(469)	(161)	(1,442)
Current portion of hedging instruments of debt (assets)	(460)	(469)	(568)
Other current financial instruments (assets)	(364)	(109)	(51)
<b>Current financial assets (note 28)</b>	<b>(1,293)</b>	<b>(739)</b>	<b>(2,061)</b>
<b>Current borrowings and related financial assets and liabilities, net</b>	<b>9,829</b>	<b>10,835</b>	<b>12,706</b>

<sup>(a)</sup> As of December 31, 2014, December 31, 2013 and December 31, 2012, the current financial debt includes a commercial paper program in Total Capital Canada Ltd. Total Capital Canada Ltd. is a wholly-owned direct subsidiary of TOTAL S.A. It acts as a financing vehicle for the activities of the Group in Canada. Its debt securities are fully and unconditionally guaranteed by TOTAL S.A. as to payment of principal, premium, if any, interest and any other amounts due.

**C) Net-debt-to-equity ratio**

For its internal and external communication needs, the Group calculates a debt ratio by dividing its net financial debt by equity. Adjusted shareholders' equity for the year ended December 31, 2014 is calculated after payment of a dividend of 2.44 per share, subject to approval by the shareholders' meeting on May 29, 2015.

The net-debt-to-equity ratio is calculated as follows:

As of December 31, (M\$)	2014	2013	2012
<b>(Assets) / Liabilities</b>			
Current borrowings	10,942	11,193	14,535
Other current financial liabilities	180	381	232
Current financial assets	(1,293)	(739)	(2,061)
Net financial assets and liabilities held for sale or exchange	(56)	(179)	997
Non-current financial debt	45,481	34,574	29,392
Hedging instruments on non-current financial debt	(1,319)	(1,418)	(2,145)
Cash and cash equivalents	(25,181)	(20,200)	(20,409)
<b>Net financial debt</b>	<b>28,754</b>	<b>23,612</b>	<b>20,541</b>
Shareholders' equity - Group share	90,330	100,241	93,969
Distribution of the income based on existing shares at the closing date	(1,686)	(1,908)	(1,757)
Non-controlling interests	3,201	3,138	1,689
<b>Adjusted shareholders' equity</b>	<b>91,845</b>	<b>101,471</b>	<b>93,901</b>
<b>Net-debt-to-equity ratio</b>	<b>31.3%</b>	<b>23.3%</b>	<b>21.9%</b>
<b>21) Other creditors and accrued liabilities</b>			

As of December 31, (M\$)	2014	2013	2012
Accruals and deferred income	469	299	316
Payable to States (including taxes and duties)	6,894	8,885	9,727
Payroll	1,343	1,573	1,489
Other operating liabilities	7,935	8,191	7,784
<b>Total</b>	<b>16,641</b>	<b>18,948</b>	<b>19,316</b>

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As of December 31, 2014, the heading **Other operating liabilities** includes mainly the third quarterly interim dividend for the fiscal year 2014 for \$1,718 million. This interim dividend will be paid in March 2015.

As of December 31, 2013, the heading **Other operating liabilities** includes mainly the third quarterly interim dividend for the fiscal year 2013 for \$1,877 million. This interim dividend was paid in March 2014.

As of December 31, 2012, the heading **Other operating liabilities** includes mainly the third quarterly interim dividend for the fiscal year 2012 for \$1,755 million. This interim dividend was paid on March 2013.

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**Table of Contents****22) Lease contracts**

The Group leases real estate, retail stations, ships, and other equipment (see Note 11 to the Consolidated Financial Statements).

The future minimum lease payments on operating and finance leases to which the Group is committed are as follows:

For the year ended December 31, 2014 (M\$)	Operating leases	Finance leases
2015	1,218	61
2016	978	58
2017	768	19
2018	590	19
2019	391	19
2020 and beyond	1,675	260
<b>Total minimum payments</b>	<b>5,620</b>	<b>436</b>
Less financial expenses		(78)
<b>Nominal value of contracts</b>		<b>358</b>
Less current portion of finance lease contracts		(40)
<b>Outstanding liability of finance lease contracts</b>		<b>318</b>
For the year ended December 31, 2013 (M\$)	Operating leases	Finance leases
2014	1,113	72
2015	906	70
2016	827	66
2017	633	23
2018	498	23
2019 and beyond	1,619	285
<b>Total minimum payments</b>	<b>5,596</b>	<b>539</b>
Less financial expenses		(113)
<b>Nominal value of contracts</b>		<b>426</b>
Less current portion of finance lease contracts		(40)
<b>Outstanding liability of finance lease contracts</b>		<b>386</b>

For the year ended December 31, 2012 (M\$)	Operating leases	Finance leases
2013	1,030	73
2014	751	71
2015	678	70
2016	582	67
2017	445	25
2018 and beyond	1,281	311
<b>Total minimum payments</b>	<b>4,767</b>	<b>617</b>
Less financial expenses		(142)
<b>Nominal value of contracts</b>		<b>475</b>
Less current portion of finance lease contracts		(36)
<b>Outstanding liability of finance lease contracts</b>		<b>439</b>

Net rental expense incurred under operating leases for the year ended December 31, 2014 is \$1,091 million (against \$1,126 million in 2013 and \$1,002 million in 2012).

**Table of Contents****23) Commitments and contingencies**

As of December 31, 2014	Maturity and installments			
	Total	Less than 1 year	Between 1 and 5 years	More than 5 years
(M\$)				
Non-current debt obligations net of hedging instruments ( <i>note 20</i> )	43,844		18,458	25,386
Current portion of non-current debt obligations net of hedging instruments ( <i>note 20</i> )	4,411	4,411		
Finance lease obligations ( <i>note 22</i> )	358	40	98	220
Asset retirement obligations ( <i>note 19</i> )	13,121	651	2,430	10,040
<b>Contractual obligations recorded in the balance sheet</b>	<b>61,734</b>	<b>5,102</b>	<b>20,986</b>	<b>35,646</b>
Operating lease obligations ( <i>note 22</i> )	5,620	1,218	2,727	1,675
Purchase obligations	160,837	19,987	33,908	106,942
<b>Contractual obligations not recorded in the balance sheet</b>	<b>166,457</b>	<b>21,205</b>	<b>36,635</b>	<b>108,617</b>
<b>Total of contractual obligations</b>	<b>228,191</b>	<b>26,307</b>	<b>57,621</b>	<b>144,263</b>
Guarantees given for excise taxes	2,382	1,855	91	436
Guarantees given against borrowings	10,192	140	3,784	6,268
Indemnities related to sales of businesses	396	121	110	165
Guarantees of current liabilities	635	144	165	326
Guarantees to customers / suppliers	5,599	2,564	168	2,867
Letters of credit	1,552	1,138	3	411
Other operating commitments	4,762	1,455	2,700	607
<b>Total of other commitments given</b>	<b>25,518</b>	<b>7,417</b>	<b>7,021</b>	<b>11,080</b>
Mortgages and liens received	418	17	4	397
Sales obligations	110,949	9,287	33,629	68,033
Other commitments received	7,081	3,321	1,388	2,372
<b>Total of commitments received</b>	<b>118,448</b>	<b>12,625</b>	<b>35,021</b>	<b>70,802</b>
<i>Of which commitments given relating to joint ventures</i>	<i>57,439</i>	<i>298</i>	<i>1,915</i>	<i>55,226</i>

As of December 31, 2013	Maturity and installments			
	Total	Less than 1 year	Between 1 and 5 years	More than 5 years
(M\$)				
Non-current debt obligations net of hedging instruments ( <i>note 20</i> )	32,770		17,545	15,225
Current portion of non-current debt obligations net of hedging instruments ( <i>note 20</i> )	5,218	5,218		
Finance lease obligations ( <i>note 22</i> )	426	40	150	236
Asset retirement obligations ( <i>note 19</i> )	12,808	735	2,368	9,705
<b>Contractual obligations recorded in the balance sheet</b>	<b>51,222</b>	<b>5,993</b>	<b>20,063</b>	<b>25,166</b>
Operating lease obligations ( <i>note 22</i> )	5,596	1,113	2,864	1,619
Purchase obligations	118,982	20,060	34,013	64,909
<b>Contractual obligations not recorded in the balance sheet</b>	<b>124,578</b>	<b>21,173</b>	<b>36,877</b>	<b>66,528</b>
<b>Total of contractual obligations</b>	<b>175,800</b>	<b>27,166</b>	<b>56,940</b>	<b>91,694</b>
Guarantees given for excise taxes	2,444	2,048	102	294
Guarantees given against borrowings	8,276	110	3,706	4,460
Indemnities related to sales of businesses	320	7	135	178
Guarantees of current liabilities	724	123	233	368
Guarantees to customers / suppliers	4,865	2,120	190	2,555
Letters of credit	2,360	1,863	225	272
Other operating commitments	4,197	1,364	960	1,873
<b>Total of other commitments given</b>	<b>23,186</b>	<b>7,635</b>	<b>5,551</b>	<b>10,000</b>
Mortgages and liens received	389	21	1	367
Sales obligations	135,463	10,515	38,702	86,246
Other commitments received	8,193	4,428	1,750	2,015
<b>Total of commitments received</b>	<b>144,045</b>	<b>14,964</b>	<b>40,453</b>	<b>88,628</b>
<i>Of which commitments given relating to joint ventures</i>	<i>11,151</i>	<i>98</i>	<i>553</i>	<i>10,500</i>

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As of December 31, 2012 (M\$)	Maturity and installments			
	Total	Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments ( <i>note 20</i> )	26,808		16,368	10,440
Current portion of non-current debt obligations net of hedging instruments ( <i>note 20</i> )	5,608	5,608		
Finance lease obligations ( <i>note 22</i> )	475	36	188	251
Asset retirement obligations ( <i>note 19</i> )	10,059	537	1,885	7,637
<b>Contractual obligations recorded in the balance sheet</b>	<b>42,950</b>	<b>6,181</b>	<b>18,441</b>	<b>18,328</b>
Operating lease obligations ( <i>note 22</i> )	4,767	1,031	2,455	1,281
Purchase obligations	109,799	15,839	27,824	66,136
<b>Contractual obligations not recorded in the balance sheet</b>	<b>114,566</b>	<b>16,870</b>	<b>30,279</b>	<b>67,417</b>
<b>Total of contractual obligations</b>	<b>157,516</b>	<b>23,051</b>	<b>48,720</b>	<b>85,745</b>
Guarantees given for excise taxes	2,210	1,988	93	129
Guarantees given against borrowings	5,214	154	3,556	1,504
Indemnities related to sales of businesses	255	5	65	185
Guarantees of current liabilities	532	175	139	218
Guarantees to customers / suppliers	4,731	2,615	149	1,967
Letters of credit	3,032	2,355	333	344
Other operating commitments	3,508	993	926	1,589
<b>Total of other commitments given</b>	<b>19,482</b>	<b>8,285</b>	<b>5,261</b>	<b>5,936</b>
Mortgages and liens received	574	154	11	409
Sales obligations	106,230	9,785	34,485	61,960
Other commitments received	7,341	4,572	1,133	1,636
<b>Total of commitments received</b>	<b>114,145</b>	<b>14,511</b>	<b>35,629</b>	<b>64,005</b>
<i>Of which commitments given relating to joint ventures</i>	<i>9,250</i>		<i>191</i>	<i>9,059</i>

**A. Contractual obligations****Debt obligations**

Non-current debt obligations are included in the items Non-current financial debt and Hedging instruments of non-current financial debt of the Consolidated Balance Sheet. It includes the non-current portion of swaps hedging bonds, and excludes non-current finance lease obligations of \$318 million.

The current portion of non-current debt is included in the items Current borrowings, Current financial assets and Other current financial liabilities of the Consolidated Balance Sheet. It includes the current portion of swaps hedging bonds, and excludes the current portion of finance lease obligations of \$40 million.

The information regarding contractual obligations linked to indebtedness is presented in Note 20 to the Consolidated Financial Statements.

**Lease contracts**

The information regarding operating and finance leases is presented in Note 22 to the Consolidated Financial Statements.

**Asset retirement obligations**

This item represents the discounted present value of Upstream asset retirement obligations, primarily asset removal costs at the completion date. The information regarding contractual obligations linked to asset retirement obligations is presented in Notes 1Q and 19 to the Consolidated Financial Statements.

**Purchase obligations**

Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on the company and specify all significant terms, including the amount and the timing of the payments.

These obligations mainly include: unconditional hydrocarbon purchase contracts (except where an active, highly-liquid market exists and when the hydrocarbons are expected to be re-sold shortly after purchase), reservation of transport capacities in pipelines, unconditional exploration works and development works in the Upstream segment, and contracts for capital investment projects in the Refining & Chemicals segment.



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**Table of Contents*****B. Other commitments given******Guarantees given for excise taxes***

These consist of guarantees given to other oil and gas companies in order to comply with French tax authorities' requirements for oil and gas imports in France. A payment would be triggered by a failure of the guaranteed party with respect to the French tax authorities. The default of the guaranteed parties is however considered to be highly remote by the Group.

***Guarantees given against borrowings***

The Group guarantees bank debt and finance lease obligations of certain non-consolidated subsidiaries and equity affiliates. Maturity dates vary, and guarantees will terminate on payment and/or cancellation of the obligation. A payment would be triggered by failure of the guaranteed party to fulfill its obligation covered by the guarantee, and no assets are held as collateral for these guarantees. As of December 31, 2014, the maturities of these guarantees are up to 2028.

Guarantees given against borrowings include the guarantee given in 2008 by TOTAL S.A. in connection with the financing of the Yemen LNG project for an amount of \$729 million.

In 2010, TOTAL S.A. provided guarantees in connection with the financing of the Jubail project (operated by SAUDI ARAMCO TOTAL Refining and Petrochemical Company (SATORP)) of up to \$3,188 million, proportional to TOTAL's share in the project (37.5%). In addition, TOTAL S.A. provided in 2010 a guarantee in favor of its partner in the Jubail project (Saudi Arabian Oil Company) with respect to Total Refining Saudi Arabia SAS's obligations under the shareholders agreement with respect to SATORP. As of December 31, 2014, this guarantee is of up to \$1,230 million and has been recorded under Other operating commitments.

As of December 31, 2014, the guarantees provided by TOTAL S.A. in connection with the financing of the Ichthys LNG project amounted to \$4,998 million.

***Indemnities related to sales of businesses***

In the ordinary course of business, the Group executes contracts involving standard indemnities for the oil industry and indemnities specific to transactions such as sales of businesses. These indemnities might include claims against any of the following: environmental, tax and shareholder matters, intellectual property rights, governmental regulations and employment-related matters, dealer, supplier, and other commercial contractual relationships. Performance under these indemnities would generally be triggered by a breach of terms of the contract or by a third party claim. The Group regularly evaluates the probability of having to incur costs associated with these indemnities.

The guarantees related to antitrust investigations granted as part of the agreement relating to the spin-off of Arkema are described in Note 32 to the Consolidated Financial Statements.

***Other guarantees given******Non-consolidated subsidiaries***

The Group also guarantees the current liabilities of certain non-consolidated subsidiaries. Performance under these guarantees would be triggered by a financial default of the entity.

***Operating agreements***

As part of normal ongoing business operations and consistent with generally accepted and recognized industry practices, the Group enters into numerous agreements with other parties. These commitments are often entered into for commercial purposes, for regulatory purposes or for other operating agreements.

***C. Commitments received******Sales obligations***

These amounts represent binding obligations under contractual agreements to sell goods, including in particular unconditional hydrocarbon sales contracts (except where an active, highly-liquid market exists and when the volumes are expected to be re-sold shortly after purchase).





**Table of Contents****24) Related parties**

The main transactions and receivable and payable balances with related parties (principally non-consolidated subsidiaries and equity consolidated affiliates) are detailed as follows:

As of December 31, (M\$)	2014	2013	2012
<b>Balance sheet</b>			
<i>Receivables</i>			
Debtors and other debtors	697	845	852
Loans (excl. loans to equity affiliates)	155	470	505
<i>Payables</i>			
Creditors and other creditors	1,199	1,208	941
Debts	14	18	12
For the year ended December 31, (M\$)	2014	2013	2012
<b>Statement of income</b>			
Sales	4,308	5,133	5,086
Purchases	9,890	7,271	7,350
Financial expense			
Financial income	16	139	136
<b>Compensation for the administration and management bodies</b>			

The aggregate amount of direct and indirect compensation accounted for by the French and foreign affiliates of the Company, for the executive officers of TOTAL (the members of the Management Committee and the Treasurer) and for the members of the Board of Directors who are employees of the Group as of December 31, is detailed as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Number of people	31	31	34
Direct or indirect compensation	28.3	29.4	27.4
Pension expenses <sup>(a)</sup>	6.8	13.3	16.1
Other long-term benefits expenses			
Termination benefits expenses			
Share-based payments expense (IFRS 2) <sup>(b)</sup>	9.0	15.7	13.6

<sup>(a)</sup> The benefits provided for executive officers and certain members of the Board of Directors, employees and former employees of the Group, include severance to be paid on retirement, supplementary pension schemes and insurance plans, which represent \$233.7 million provisioned as of December 31, 2014 (against \$260.2 million as of December 31, 2013 and \$239.2 million as of December 31, 2012).

<sup>(b)</sup> Share-based payments expense computed for the executive officers and the members of the Board of Directors who are employees of the Group as described in Note 25 paragraph E to the Consolidated Financial Statements and based on the principles of IFRS 2 Share-based payments described in Note 1 paragraph E to the Consolidated Financial Statements.

The compensation allocated to members of the board of directors for directors fees totaled \$1.78 million in 2014 (against \$1.66 million in 2013 and \$1.41 million in 2012).

**Table of Contents****25) Share-based payments****A. TOTAL share subscription option plans**

	2004 Plan	2005 Plan	2006 Plan	2007 Plan	2008 Plan	2009 Plan	2010 Plan	2011 Plan	Total	Weighted average exercise price (in euros)
<b>Date of the shareholders meeting</b>	05/14/2004	05/14/2004	05/14/2004	05/11/2007	05/11/2007	05/11/2007	05/21/2010	05/21/2010		
<b>Date of the award<sup>(a)</sup></b>	07/20/2004	07/19/2005	07/18/2006	07/17/2007	10/09/2008	09/15/2009	09/14/2010	09/14/2011		
<b>Exercise price until May 23, 2006 included (in euros)<sup>(b)</sup></b>	39.85	49.73								
<b>Exercise price since May 24, 2006 (in euros)<sup>(b)</sup></b>	39.30	49.04	50.60	60.10	42.90	39.90	38.20	33.00		
<b>Expiry date</b>	07/20/2012	07/19/2013	07/18/2014	07/17/2015	10/09/2016	09/15/2017	09/14/2018	09/14/2019		
<b>Number of options<sup>(c)</sup></b>										
<b>Existing options as of January 1, 2012</b>	12,094,524	6,162,536	5,623,506	5,850,365	4,335,698	4,357,800	4,700,043	1,508,440	44,632,912	44.87
Granted										
Cancelled <sup>(c)</sup>	(11,351,931)	(2,516)	(1,980)	(1,380)	(3,600)	(2,700)	(4,140)	(3,400)	(11,371,647)	39.31
Exercised	(742,593)				(1,630)	(20,200)	(34,460)		(798,883)	39.28
<b>Existing options as of January 1, 2013</b>		6,160,020	5,621,526	5,848,985	4,330,468	4,334,900	4,661,443	1,505,040	32,462,382	46.96
Granted										
Cancelled <sup>(c)</sup>		(6,159,390)	(900)	(1,020)	(360)	(1,080)	(720)		(6,163,470)	49.04
Exercised		(630)			(110,910)	(344,442)	(122,871)	(363,946)	(942,799)	37.37
<b>Existing options as of January 1, 2014</b>			5,620,626	5,847,965	4,219,198	3,989,378	4,537,852	1,141,094	25,356,113	46.82
Granted										
Cancelled <sup>(c)</sup>			(1,797,912)						(1,797,912)	50.60
Exercised			(3,822,714)		(1,003,314)	(978,109)	(836,634)	(282,019)	(6,922,790)	45.76
<b>Existing options as of December 31, 2014</b>				5,847,965	3,215,884	3,011,269	3,701,218	859,075	16,635,411	46.85

<sup>(a)</sup> The grant date is the date of the Board meeting awarding the share subscription options, except for the grant of October 9, 2008, decided by the Board on September 9, 2008.

<sup>(b)</sup> In order to take into account the four-for-one stock split on May 18, 2006, the exercise prices of TOTAL subscription shares of the plans in force at that date were multiplied by 0.25 and the number of options awarded, outstanding, canceled or exercised before May 23, 2006 included was multiplied by four. Moreover, following the spin-off of Arkema, the exercise prices of TOTAL subscription shares of these plans were multiplied by an adjustment factor equal to 0.986147 effective as of May 24, 2006.

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*(c) Out of the options canceled in 2012, 2013 and 2014, 11,351,931 options that were not exercised expired on July 20, 2012 due to the expiry of the 2004 Plan and 6,158,662 options that were not exercised expired on July 19, 2013 due to the expiry of the 2005 Plan. and 1,797,912 options that were not exercised expired on July 18, 2014 due to the expiry of the 2006 Plan.*

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Options are exercisable, subject to a continuous employment condition, after a 2-year period from the date of the Board meeting awarding the options and expire eight years after this date. The underlying shares may not be transferred during four years from the date of grant. For the 2007 to 2011 Plans, the 4-year transfer restriction period does not apply to employees of non-French

subsidiaries as of the date of the grant, who may transfer the underlying shares after a 2-year period from the date of the grant.

Since the 2011 Plan, no new TOTAL share subscription option plan or TOTAL share purchase plan was decided.

**B. TOTAL performance share grants**

TOTAL performance share grants	2010 Plan	2011 Plan	2012 Plan	2013 Plan	2014 Plan	Total
<b>Date of the shareholders meeting</b>	<b>05/16/2008</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	<b>05/16/2014</b>	
<b>Date of the award</b>	<b>09/14/2010</b>	<b>09/14/2011</b>	<b>07/26/2012</b>	<b>07/25/2013</b>	<b>07/29/2014</b>	
<b>Date of the final award (end of the vesting period)</b>	<b>09/15/2012</b>	<b>09/15/2013</b>	<b>07/27/2014</b>	<b>07/26/2016</b>	<b>07/30/2017</b>	
<b>Transfer authorized as from</b>	<b>09/15/2014</b>	<b>09/15/2015</b>	<b>07/27/2016</b>	<b>07/26/2018</b>	<b>07/30/2019</b>	
<b>Number of performance shares</b>						
<b>Outstanding as of January 1, 2012</b>	<b>2,988,051</b>	<b>3,630,191</b>				<b>6,618,242</b>
Notified			4,295,930			<b>4,295,930</b>
Cancelled	(32,650)	(18,855)				<b>(51,505)</b>
Finally granted	(2,955,401)	(5,530)				<b>(2,960,931)</b>
<b>Outstanding as of January 1, 2013</b>		<b>3,605,806</b>	<b>4,295,930</b>			<b>7,901,736</b>
Notified				4,464,200		<b>4,464,200</b>
Cancelled		(14,970)	(17,340)	(3,810)		<b>(36,120)</b>
Finally granted		(3,590,836)	(180)			<b>(3,591,016)</b>
<b>Outstanding as of January 1, 2014</b>			<b>4,278,410</b>	<b>4,460,390</b>		<b>8,738,800</b>
Notified					4,486,300	<b>4,486,300</b>
Cancelled			(43,320)	(22,360)	(11,270)	<b>(76,950)</b>
Finally granted			(4,235,090)	(3,570)		<b>(4,238,660)</b>
<b>Outstanding as of December 31, 2014</b>				<b>4,434,460</b>	<b>4,475,030</b>	<b>8,909,490</b>

The performance shares, which are bought back by the Company on the market, are finally granted to their beneficiaries after a 3-year vesting period for the 2013 and 2014 Plans and a 2-year vesting period for the previous plans, from the date of the grant. The final grant is subject to a continued employment condition and a performance condition. Moreover, the transfer of the performance shares finally granted will not be permitted until the end of a 2-year holding period from the date of the final grant.

**2013 and 2014 Plans**

For the 2013 and 2014 Plans, the Board of Directors decided that for senior executives (other than the late Chairman and Chief Executive Officer), the final grant of all shares will be subject to a continued employment condition and a performance condition. The performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015 for the 2013 Plan and for fiscal years 2014, 2015 and 2016 for the 2014 Plan. The acquisition rate:

is equal to zero if the average ROE is less than or equal to 8%;

varies on a straight-line basis between 0% and 100% if the average ROE is greater than 8% and less than 16%; and  
is equal to 100% if the average ROE is greater than or equal to 16%.

The Board of Directors also decided that for each beneficiary of more than 100 shares (other than the late Chairman and Chief Executive Officer and the senior executives), and subject to the continuous employment condition, the shares in excess of this threshold will be subject to the performance condition described above and will be finally granted provided such performance condition is met.

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In addition, the Board of Directors had decided that, subject to a continuous employment condition, the number of performance shares finally granted to the Chairman and Chief Executive Officer would be subject to two performance conditions:

For 50% of the shares granted, the performance condition stated that the number of shares finally granted would have been based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for the three reference fiscal years. The acquisition rate would have been equal to zero if the average ROE had been less than or equal to 8%; would have varied on a straight-line basis between 0% and 100% if the average ROE had been more than 8% and less than 16%; and would have been equal to 100% if the average ROE had been more than or equal to 16%.

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For 50% of the shares granted, the performance condition stated that the number of shares finally granted would have been based on the average ROACE of the Group as published by the Group according to its consolidated balance sheet and statement of income for the three reference fiscal years. The acquisition rate would have been equal to zero if the average ROACE had been less than or equal to 7%; would have varied on a straight-line basis between 0% and 100% if the average ROACE had been more than 7% and less than 15%; and would have been equal to 100% if the average ROACE had been more than or equal to 15%.

However following the death of Mr. de Margerie, and by application of the rules of the performance share plan, the late Chairman and Chief Executive Officer's heirs can request to receive 100% of the performance shares initially granted.

### **2012 Plan**

For the 2012 Plan, the Board of Directors decided that for senior executives (other than the Chairman and Chief Executive Officer), the final grant of all shares will be subject to a continued employment condition and a performance condition. The performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013. The acquisition rate:

is equal to zero if the average ROE is less than or equal to 8%;

varies on a straight-line basis between 0% and 100% if the average ROE is greater than 8% and less than 16%; and

is equal to 100% if the average ROE is greater than or equal to 16%.

The Board of Directors also decided that, for each beneficiary (other than the Chairman and Chief Executive Officer and the senior executives) of more than 100 shares, the shares in excess of this number will be finally granted subject to the performance condition mentioned before.

In addition, the Board of Directors decided that, subject to a continuous employment condition, the number of performance shares finally granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

For 50% of the shares granted, the performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013. The acquisition rate is equal to zero if the average ROE is less than or equal to 8%; varies on a straight-line basis between 0% and 100% if the average ROE is more than 8% and less than 16%; and is equal to 100% if the average ROE is more than or equal to 16%.

For 50% of the shares granted, the performance condition states that the number of shares finally granted is based on the average ROACE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013. The acquisition rate is equal to zero if the average ROACE is less than or equal to 7%; varies on a straight-line basis between 7% and 100% if the average ROACE is more than 7% and less than 15%; and is equal to 100% if the average ROACE is more than or equal to 15%.

For the 2012 plan, due to the application of the performance conditions, the acquisition rate was 100% for the shares granted under condition depending on the ROE criteria and 88% for the shares granted under condition depending on the ROACE criteria. As a reminder, the acquisition rates were 100% for the 2010 and 2011 plans.

### ***C. Global free TOTAL share plan***

The Board of Directors approved at its meeting on May 21, 2010, the implementation and conditions of a global free share plan intended for the Group's employees (employees of Total S.A. or companies in which Total S.A. holds directly or indirectly an interest of more than 50%). On June 30, 2010, entitlement rights to twenty-five free shares were granted to every employee.

The final grant was subject to a continued employment condition during the plan's vesting period. Depending on the country in which the companies of the Group were located, the acquisition period was either two years followed by a conservation period of two years (for the countries with a 2+2 structure), or four years without any conservation period (for the countries with a 4+0 structure). Furthermore, the granted shares were not subject to a performance condition.



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The Chairman and Chief Executive Officer acknowledged on July 2, 2012, the issuance and the award of 1,366,950 shares to the beneficiaries designated at the end of the 2-year acquisition period. The Chairman and Chief Executive Officer acknowledged on July 1, 2014, the issuance and the award of 666,575 shares to the beneficiaries designated at the end of the 4-year acquisition period.

	2011 Plan (2+2)	2011 Plan (4+0)	Total
<b>Date of the shareholders meeting</b>	<b>05/16/2008</b>	<b>05/16/2008</b>	
<b>Date of the award<sup>(a)</sup></b>	<b>06/30/2010</b>	<b>06/30/2010</b>	
<b>Date of the final award</b>	<b>07/01/2012</b>	<b>07/01/2014</b>	
<b>Transfer authorized as from</b>	<b>07/01/2014</b>	<b>07/01/2014</b>	
<b>Number of free shares</b>			
<b>Outstanding as of January 1, 2012</b>	<b>1,479,000</b>	<b>1,015,525</b>	<b>2,494,525</b>
Notified			
Cancelled	(111,725)	(40,275)	(152,000)
Finally granted <sup>(b)</sup>	(1,367,275)	(350)	(1,367,625)
<b>Outstanding as of January 1, 2013</b>		<b>974,900</b>	<b>974,900</b>
Notified			
Cancelled	100	(101,150)	(101,050)
Finally granted <sup>(b)</sup>	(100)	(275)	(375)
<b>Outstanding as of January 1, 2014</b>		<b>873,475</b>	<b>873,475</b>
Notified			
Cancelled		(206,225)	(206,225)
Finally granted <sup>(c)</sup>		(667,250)	(667,250)
<b>Outstanding as of December 31, 2014</b>			

<sup>(a)</sup> The June 30, 2010, grant was decided by the Board of Directors on May 21, 2010.

<sup>(b)</sup> Final grant July 2, 2012 of 1,366,950 shares to the designated beneficiaries at the end of the 2-year acquisition period.

<sup>(c)</sup> Final grant July 1, 2014 of 666,575 shares to the designated beneficiaries at the end of the 4-year acquisition period.

**D. SunPower plans**

SunPower has three stock incentive plans: the 1996 Stock Plan ( 1996 Plan ), the Third Amended and Restated 2005 SunPower Corporation Stock Incentive Plan ( 2005 Plan ) and the PowerLight Corporation Common Stock Option and Common Stock Purchase Plan ( PowerLight Plan ). The PowerLight Plan was assumed by SunPower by way of the acquisition of PowerLight in fiscal 2007. Under the terms of all three plans, SunPower may issue incentive or non-statutory stock options or stock purchase rights to directors, employees and consultants to purchase common stock. The 2005 Plan was adopted by SunPower's Board of Directors in August 2005, and was approved by shareholders in November 2005. The 2005 Plan replaced the 1996 Plan and allows not only for the grant of options, but also for the grant of stock appreciation rights, restricted stock grants, restricted stock units and other equity rights. The 2005 Plan also allows for tax withholding obligations related to stock option exercises or restricted stock awards to be satisfied through the retention of shares otherwise released upon vesting. The PowerLight Plan was adopted by PowerLight's Board of Directors in October 2000.

In May 2008, the Company's stockholders approved an automatic annual increase available for grant under the 2005 Plan, beginning in fiscal 2009. The automatic annual increase is equal to the lower of three percent of the

outstanding shares of all classes of the Company's common stock measured on the last day of the immediately preceding fiscal quarter, 6.0 million shares, or such other number of shares as determined by the Company's Board of Directors. As of December 28, 2014, approximately 8.0 million shares were available for grant under the 2005 Plan. In fiscal 2014, the Company's Board of Directors voted not to add the three percent annual increase at the beginning of fiscal 2015. No new awards were being approved by the Company's Board of Directors in fiscal 2014. No new awards are being granted under the 1996 Plan or the PowerLight Plan.

Incentive stock options may be granted at no less than the fair value of the common stock on the date of grant. Non-statutory stock options and stock purchase rights may be granted at no less than 85% of the fair value of the common stock at the date of grant. The options and rights become exercisable when and as determined by the Company's Board of Directors, although these terms generally do not exceed ten years for stock options. Under the 1996 and 2005 Plans, the options typically vest over five years with a one-year cliff and monthly vesting thereafter. Under the PowerLight Plan, the options typically vest over five years with yearly cliff vesting. Under the 2005 Plan, the restricted stock grants and restricted stock units typically vest in three equal installments annually over three years.





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The majority of shares issued are net of the minimum statutory withholding requirements that the Company pays on behalf of its employees. During fiscal 2014, 2013, and 2012, the Company withheld 1,738,625 shares, 1,329,140 shares, and 905,953 shares, respectively, to satisfy the

employees' tax obligations. The Company pays such withholding requirements in cash to the appropriate taxing authorities. Shares withheld are treated as common stock repurchases for accounting and disclosure purposes and reduce the number of shares outstanding upon vesting.

The following table summarizes SunPower's stock option activities:

	Outstanding Stock Options			
	Shares (in thousands)	Weighted-Average Exercise Price Per Share (in dollars)	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands dollars)
<b>Outstanding and exercisable as of December 28, 2014</b>	<b>210</b>	<b>41.44</b>	<b>2.51</b>	<b>1,036</b>

The intrinsic value of options exercised in fiscal 2014, 2013, and 2012 were \$2.4 million, \$0.8 million, and \$0.1 million, respectively. There were no stock options granted in fiscal 2014, 2013, and 2012.

The aggregate intrinsic value in the preceding table represents the total pre-tax intrinsic value, based on the

Company's closing stock price of \$26.32 at December 28, 2014 which would have been received by the option holders had all option holders exercised their options as of that date. The total number of in-the-money options exercisable was 0.1 million shares as of December 28, 2014.

The following table summarizes SunPower's non-vested stock options and restricted stock activities thereafter:

	Stock Options		Restricted Stock Awards and Units	
	Shares (in thousands)	Weighted-Average Exercise Price Per Share (in dollars)	Shares (in thousands)	Weighted-Average Grant Date Fair Value Per Share (in dollars) <sup>(a)</sup>
<b>Outstanding as of January 1, 2012</b>	<b>43</b>	<b>48.33</b>	<b>7,370</b>	<b>13.25</b>
Granted			5,638	5.93
Vested <sup>(b)</sup>	(30)	57.79	(2,845)	13.94
Forfeited	(13)	24.72	(1,587)	11.52
<b>Outstanding as of December 30, 2012</b>			<b>8,576</b>	<b>8.53</b>
Granted			5,607	15.88

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Vested <sup>(b)</sup>	(3,583)	9.48
Forfeited	(1,008)	10.10
<b>Outstanding as of December 29, 2013</b>	<b>9,592</b>	<b>12.26</b>
Granted	2,187	31.80
Vested <sup>(b)</sup>	(4,432)	11.61
Forfeited	(792)	15.00
<b>Outstanding as of December 28, 2014</b>	<b>6,555</b>	<b>18.88</b>

*(a) The Company estimates the fair value of the restricted stock unit awards as the stock price on the grant date.*

*(b) Restricted stock awards and units vested include shares withheld on behalf of employees to satisfy the minimum statutory tax withholding requirements.*

### *E. Share-based payment expense*

Share-based payment expense before tax for the year 2014 amounts to \$194 million and is broken down as follows:

\$114 million for TOTAL restricted shares plans; and

\$80 million for SunPower plans.

Share-based payment expense before tax for the year 2013 amounted to \$287 million and was broken down as follows:

\$4 million for TOTAL share subscription plans;

\$170 million for TOTAL restricted shares plans;

\$98 million for SunPower plans;

\$14 million for the capital increase reserved for employees (see Note 17).

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Share-based payment expense before tax for the year 2012 amounted to \$191 million and was broken down as follows:

\$17 million for TOTAL share subscription plans;

\$171 million for TOTAL restricted shares plans; and

\$3 million for SunPower plans.

In 2014, 2013 and 2012 no new TOTAL share subscription option plan was decided.

The cost of capital increases reserved for employees is reduced to take into account the non transferability of the shares that could be subscribed by the employees over a period of five years. The valuation method of non transferability of the shares is based on a strategy cost in two steps consisting, first, in a five years forward sale of the nontransferable shares, and second, in purchasing the same number of shares in cash with a loan financing reimbursable in fine.

The Combined General Meeting of May 11, 2012 delegated to the Board of Directors, in its seventeenth resolution, the authority to carry out in one or more occasions within a maximum period of twenty-six months, a capital increase reserved for employees belonging to an employee savings plan.

This same Combined General Meeting also delegated to the Board of Directors the powers necessary to accomplish in one or more occasions within a maximum period of eighteen months, a capital increase with the objective of providing employees with their registered office located outside France with benefits comparable to those granted to the employees included in the seventeenth resolution of the Combined General Meeting of May 11, 2012.

Pursuant to these delegations, the Board of Directors, during its September 18, 2012 meeting, decided to proceed with a capital increase reserved for employees that included a classic offer and a leveraged offer depending on the employees' choice, within the limit of 18 million shares with dividend rights as of January 1, 2012. This capital increase resulted in the subscription of 10,802,215 shares with a par value of 2.50 at a unit price of 30.70. The issuance of the shares was acknowledged on April 25, 2013.

The cost of the capital increase reserved for employees consists of the cost related to the discount on all the shares subscribed using both the classic and the leveraged schemes, and the opportunity gain for the shares subscribed using the leveraged scheme. This opportunity gain corresponds to the benefit of subscribing

to the leveraged offer, rather than reproducing the same economic profile through the purchase of options in the market for individual investors.

The global cost is reduced to take into account the non transferability of the shares that could be subscribed by the employees over a period of five years. The valuation method of non transferability of the shares is based on a strategy cost in two steps consisting, first, in a five years forward sale of the nontransferable shares, and second, in purchasing the same number of shares in cash with a loan financing reimbursable in fine. During the year 2013, the main assumptions used for the valuation of the cost of the capital increase reserved for employees were the following:

For the year ended December 31,	2013
Date of the Board of Directors meeting that decided the issue	September 18, 2012
Subscription price ( <sup>(a)</sup> )	30.70
Share price at the reference date ( <sup>(b)</sup> )	39.57
Number of shares (in millions)	10.80
Risk free interest rate (%) <sup>(c)</sup>	0.88
Employees loan financing rate (%) <sup>(d)</sup>	6.97
Non transferability cost (% of the reference's share price)	22.1

<sup>(a)</sup> Average of the closing TOTAL share prices during the twenty trading days prior to March 14, 2013, date on which the Chairman and Chief Executive Officer set the subscription period, after deduction of a 20% discount.

<sup>(b)</sup> Share price on March 14, 2013, date on which the Chairman and Chief Executive Officer set the subscription period.

<sup>(c)</sup> Zero coupon Euro swap rate at 5 years.

<sup>(d)</sup> The employees' loan financing rate is based on a 5 year consumer's credit rate.

A cost of \$14.1 million related to the capital increase reserved for employees has been accounted to the fiscal year 2013.

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The Combined General Meeting of May 16, 2014, in its fourteenth resolution, delegated to the Board of Directors the authority to carry out in one or more occasions within a maximum period of twenty-six months, a capital increase reserved for employees belonging to an employee savings plan.

The Combined General Meeting of May 16, 2014, in its fifteenth resolution, also delegated to the Board of Directors the powers necessary to accomplish in one or more occasions within a maximum period of eighteen months, a capital increase with the objective of providing employees with their registered office located outside France with benefits comparable to those granted to the employees included in the fourteenth resolution of the Combined General Meeting of May 16, 2014.

Pursuant to these delegations, the Board of Directors, during its July 29, 2014, meeting, decided to proceed with a capital increase reserved for employees that included a classic offering and a leveraged offering depending on the

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employees' choice, within the limit of 18 million shares with dividend rights as of January 1, 2014. All powers were delegated to the Chief Executive Officer to determine the opening and closing of the subscription period and the subscription price. This capital increase, opened in 2014, should be completed before the General Meeting of 2015.

**26) Payroll and staff**

For the year ended December 31,	2014	2013	2012
<b>Personnel expenses (M\$)</b>			
Wages and salaries (including social charges)	9,690	9,424	9,167
<b>Group employees</b>			
France			
Management	11,477	11,189	11,347
Other	21,120	22,010	23,656
International			
Management	17,794	17,338	16,307
Other	49,916	48,262	45,816
<b>Total</b>	<b>100,307</b>	<b>98,799</b>	<b>97,126</b>

The number of employees includes only employees of fully consolidated subsidiaries.

**27) Statement of cash flows****A) Cash flow from operating activities**

The following table gives additional information on cash paid or received in the cash flow from operating activities:

For the year ended December 31, (M\$)	2014	2013	2012
Interests paid	(789)	(715)	(892)
Interests received	119	76	94
Income tax paid <sup>(a)</sup>	(11,374)	(13,708)	(16,788)
Dividends received	2,992	2,798	3,108

<sup>(a)</sup> These amounts include taxes paid in kind under production-sharing contracts in Exploration & Production. Changes in working capital are detailed as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Inventories	5,289	1,079	478
Accounts receivable	5,916	3,181	986
Other current assets	(1,605)	(1,678)	(291)
Accounts payable	(4,531)	174	443
Other creditors and accrued liabilities	(589)	(231)	(224)
<b>Net amount</b>	<b>4,480</b>	<b>2,525</b>	<b>1,392</b>

**B) Cash flow used in financing activities**

Changes in non-current financial debt are detailed in the following table as a net value due to the high number of multiple drawings on revolving credit lines:

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For the year ended December 31, (M\$)	2014	2013	2012
Issuance of non-current debt	15,874	11,221	7,114
Repayment of non-current debt	(88)	(119)	(334)
<b>Net amount</b>	<b>15,786</b>	<b>11,102</b>	<b>6,780</b>

*C) Cash and cash equivalents*

Cash and cash equivalents are detailed as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Cash	13,874	12,895	8,183
Cash equivalents	11,307	7,305	12,226
<b>Total</b>	<b>25,181</b>	<b>20,200</b>	<b>20,409</b>

Cash equivalents are mainly composed of deposits less than three months deposited in government institutions or deposit banks selected in accordance with strict criteria.

**Table of Contents****28) Financial assets and liabilities analysis per instrument class and strategy**

The financial assets and liabilities disclosed in the balance sheet are detailed as follows:

As of December 31, 2014 (M\$) Assets / (Liabilities)	Financial instruments related to financing and operational activities					Other financial instruments	Total	Fair value
	Amortized cost	Fair value				Net investment and other		
		Available for sale <sup>(a)</sup>	Held for trading	Financial debt <sup>(b)</sup>	Hedging of Cash flow			
Equity affiliates: loans	4,626						4,626	4,626
Other investments		1,399					1,399	1,399
Hedging instruments of non-current financial debt				1,084	235		1,319	1,319
Other non-current assets	3,326						3,326	3,326
Accounts receivable, net <sup>(c)</sup>						15,704	15,704	15,704
Other operating receivables			2,502			8,283	10,792	10,792
Current financial assets	469		364		460		1,293	1,293
Cash and cash equivalents						25,181	25,181	25,181
<b>Total financial assets</b>	<b>8,421</b>	<b>1,399</b>	<b>2,866</b>	<b>1,544</b>	<b>242</b>	<b>49,168</b>	<b>63,640</b>	<b>63,640</b>
<b>Total non-financial assets</b>							<b>166,158</b>	
<b>Total assets</b>							<b>229,798</b>	
Non-current financial debt	(7,179)			(37,355)	(944)	(3)	(45,481)	(46,472)
Accounts payable <sup>(c)</sup>						(24,150)	(24,150)	(24,150)
Other operating liabilities			(1,073)			(4)	(7,935)	(7,935)
Current borrowings	(6,241)			(4,701)			(10,942)	(10,942)
Other current financial liabilities			(47)		(133)		(180)	(180)
<b>Total financial liabilities</b>	<b>(13,420)</b>		<b>(1,120)</b>	<b>(42,056)</b>	<b>(1,077)</b>	<b>(7)</b>	<b>(88,688)</b>	<b>(89,679)</b>
<b>Total non-financial liabilities</b>							<b>(141,110)</b>	
<b>Total liabilities</b>							<b>(229,798)</b>	

<sup>(a)</sup> Financial assets available for sale are measured at their fair value except for unlisted securities (see Note 1 paragraph M(ii) and Note 13 to the Consolidated Financial Statements).

<sup>(b)</sup> The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 1 paragraph M(iii) to the Consolidated Financial Statements).

<sup>(c)</sup> The impact of offsetting on accounts receivable, net is \$(1,970) million and \$+1,970 million on accounts payable.



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As of December 31, 2013 (M\$) Assets / (Liabilities)	Financial instruments related to financing and trading activities					Other financial instruments	Total	Fair value
	Amortized cost	Fair value			Net investment			
		Available for sale <sup>(a)</sup>	Held for trading	Financial debt <sup>(b)</sup>		Hedging of Cash flow		
Equity affiliates: loans	3,554						3,554	3,554
Other investments		1,666					1,666	1,666
Hedging instruments of non-current financial debt					1,204	214	1,418	1,418
Other non-current assets	3,575						3,575	3,575
Accounts receivable, net <sup>(c)</sup>						23,422	23,422	23,422
Other operating receivables			1,278			8,639	9,917	9,917
Current financial assets	161		108		469	1	739	739
Cash and cash equivalents						20,200	20,200	20,200
<b>Total financial assets</b>	<b>7,290</b>	<b>1,666</b>	<b>1,386</b>		<b>1,673</b>	<b>215</b>	<b>52,261</b>	<b>64,491</b>
<b>Total non-financial assets</b>							<b>174,732</b>	
<b>Total assets</b>							<b>239,223</b>	
Non-current financial debt	(6,985)			(27,264)	(325)		(34,574)	(35,401)
Accounts payable <sup>(c)</sup>						(30,282)	(30,282)	(30,282)
Other operating liabilities			(848)			(26)	(8,191)	(8,191)
Current borrowings	(5,901)			(5,292)			(11,193)	(11,193)
Other current financial liabilities			(61)		(314)	(6)	(381)	(381)
<b>Total financial liabilities</b>	<b>(12,886)</b>		<b>(909)</b>	<b>(32,556)</b>	<b>(639)</b>	<b>(32)</b>	<b>(84,621)</b>	<b>(85,448)</b>
<b>Total non-financial liabilities</b>							<b>(154,602)</b>	
<b>Total liabilities</b>							<b>(239,223)</b>	

<sup>(a)</sup> Financial assets available for sale are measured at their fair value except for unlisted securities (see Note 1 paragraph M(ii) and Note 13 to the Consolidated Financial Statements).

<sup>(b)</sup> The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 1 paragraph M(iii) to the Consolidated Financial Statements).

<sup>(c)</sup> The impact of offsetting on accounts receivable, net is \$(3,458) million and \$+3,458 million on accounts payable.

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As of December 31, 2012(M\$)	Amortized cost	Financial instruments related to financing and trading activities				Other financial instruments	Total	Fair value
		Available for sale <sup>(a)</sup>	Held for trading	Financial debt <sup>(b)</sup>	Hedging of Cash flow			
Assets / (Liabilities)				debt <sup>(b)</sup>	Financial Debt	Hedge and other		
Equity affiliates: loans	3,114						<b>3,114</b>	<b>3,114</b>
Other investments		1,571					<b>1,571</b>	<b>1,571</b>
Hedging instruments of non-current financial debt					2,066	79	<b>2,145</b>	<b>2,145</b>
Other non-current assets	2,912						<b>2,912</b>	<b>2,912</b>
Accounts receivable, net <sup>(c)</sup>						25,339	<b>25,339</b>	<b>25,339</b>
Other operating receivables			899			7,227	<b>8,126</b>	<b>8,126</b>
Current financial assets	1,442		50		568	1	<b>2,061</b>	<b>2,061</b>
Cash and cash equivalents						20,409	<b>20,409</b>	<b>20,409</b>
<b>Total financial assets</b>	<b>7,468</b>	<b>1,571</b>	<b>949</b>		<b>2,634</b>	<b>80</b>	<b>52,975</b>	<b>65,677</b>
<b>Total non-financial assets</b>							<b>160,209</b>	
<b>Total assets</b>							<b>225,886</b>	
Non-current financial debt	(6,712)			(22,666)	(14)		<b>(29,392)</b>	<b>(29,651)</b>
Accounts payable <sup>(c)</sup>						(28,563)	<b>(28,563)</b>	<b>(28,563)</b>
Other operating liabilities			(602)			(13)	<b>(7,169)</b>	<b>(7,784)</b>
Current borrowings	(8,955)			(5,580)			<b>(14,535)</b>	<b>(14,535)</b>
Other current financial liabilities			(116)		(111)	(5)	<b>(232)</b>	<b>(232)</b>
<b>Total financial liabilities</b>	<b>(15,667)</b>		<b>(718)</b>	<b>(28,246)</b>	<b>(125)</b>	<b>(18)</b>	<b>(35,732)</b>	<b>(80,765)</b>
<b>Total non-financial liabilities</b>							<b>(145,380)</b>	
<b>Total liabilities</b>							<b>(225,886)</b>	

<sup>(a)</sup> Financial assets available for sale are measured at their fair value except for unlisted securities (see Note 1 paragraph M(ii) and Note 13 to the Consolidated Financial Statements).

<sup>(b)</sup> The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 1 paragraph M(iii) to the Consolidated Financial Statements).

<sup>(c)</sup> The impact of offsetting on accounts receivable, net is \$(1,428) million and \$+1,428 million on accounts payable.

**Table of Contents****29) Fair value of financial instruments (excluding commodity contracts)***A) Impact on the statement of income per nature of financial instruments***Operating assets and liabilities**

The impact on the statement of income is detailed as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Assets available for sale (investments) :			
dividend income on non-consolidated subsidiaries	282	202	286
gains (losses) on disposal of assets	13	149	661
other	(84)	(94)	(77)
Loans and receivables	9	106	(26)
<b>Impact on net operating income</b>	<b>220</b>	<b>363</b>	<b>844</b>

The impact in the statement of income mainly includes:

Dividends and gains or losses on disposal of other investments classified as Other investments ;

Financial gains and depreciation on loans related to equity affiliates, non-consolidated companies and on receivables reported in Loans and receivables .

**Assets and liabilities from financing activities**

The impact on the statement of income of financing assets and liabilities is detailed as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Loans and receivables	135	94	102
Financing liabilities and associated hedging instruments	(750)	(899)	(868)
Fair value hedge (ineffective portion)	2	9	5
Assets and liabilities held for trading	(27)	(8)	26
<b>Impact on the cost of net debt</b>	<b>(640)</b>	<b>(804)</b>	<b>(735)</b>

The impact on the statement of income mainly includes:

Financial income on cash, cash equivalents, and current financial assets (notably current deposits beyond three months) classified as Loans and receivables ;  
Financial expense of long term subsidiaries financing, associated hedging instruments (excluding ineffective portion of the hedge detailed below) and  
financial expense of short term financing classified as Financing liabilities and associated hedging instruments ;

Ineffective portion of bond hedging; and

Financial income, financial expense and fair value of derivative instruments used for cash management purposes classified as Assets and liabilities held for trading .

Financial derivative instruments used for cash management purposes (interest rate and foreign exchange) are considered to be held for trading. Based on practical documentation issues, the Group did not elect to set up hedge accounting for such instruments. The impact on income of the derivatives is offset by the impact of loans and current liabilities they are related to. Therefore these transactions taken as a whole do not have a significant impact on the Consolidated Financial

Statements.

*B) Impact of the hedging strategies*

**Fair value hedge**

The impact on the statement of income of the bond hedging instruments which is recorded in the item Financial interest on debt in the Consolidated Statement of Income is detailed as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Revaluation at market value of bonds	443	1,428	412
Swap hedging of bonds	(441)	(1,419)	(407)
<b>Ineffective portion of the fair value hedge</b>	<b>2</b>	<b>9</b>	<b>5</b>

The ineffective portion is not representative of the Group's performance considering the Group's objective to hold swaps to maturity. The current portion of the swaps valuation is not subject to active management.

**Net investment hedge**

These instruments are recorded directly in other comprehensive income under Currency translation adjustments. The variations of the period are detailed in the table below:

For the year ended December 31, (M\$)	As of January 1,	Variations	Disposals	As of December 31
<b>2014</b>	<b>(367)</b>	<b>(144)</b>		<b>(511)</b>
2013	(384)	17		(367)
2012	(135)	(249)		(384)

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As of December 31, 2014, 2013 and 2012 the Group had no open forward contracts under these hedging instruments.

**Cash flow hedge**

The impact on the statement of income and on equity of the hedging instruments qualified as cash flow hedges is detailed as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Profit (Loss) recorded in equity during the period	97	156	83
Recycled amount from equity to the income statement during the period	(295)	86	112
As of December 31, 2014, 2013 and 2012, the ineffective portion of these financial instruments is equal to zero.			

**C) Maturity of derivative instruments**

The maturity of the notional amounts of derivative instruments, excluding the commodity contracts, is detailed in the following table:

For the year ended December 31, 2014 (M\$)	Notional value <sup>(a)</sup>							2020 and after
	Fair value	Total	2015	2016	2017	2018	2019	
<b>Assets / (Liabilities)</b>								
<b>Fair value hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)	(944)	<b>21,546</b>						
Swaps hedging fixed-rates bonds (assets)	1,084	<b>14,946</b>						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>140</b>	<b>36,492</b>		<b>3,505</b>	<b>4,490</b>	<b>5,018</b>	<b>3,255</b>	<b>20,224</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(133)	<b>1,004</b>						
Swaps hedging fixed-rates bonds (current portion) (assets)	460	<b>4,163</b>						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>327</b>	<b>5,167</b>	<b>5,167</b>					
<b>Cash flow hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)	(3)	<b>247</b>						
Swaps hedging fixed-rates bonds (assets)	235	<b>2,221</b>						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>232</b>	<b>2,468</b>					<b>969</b>	<b>1,499</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)								
Swaps hedging fixed-rates bonds (current portion) (assets)								
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>								
Swaps hedging investments (liabilities)	(4)	<b>45</b>						
Swaps hedging investments (assets)	7	<b>146</b>						
<b>Total swaps hedging investments (assets and liabilities)</b>	<b>3</b>	<b>191</b>	<b>191</b>					
<b>Net investment hedge</b>								
Currency swaps and forward exchange contracts (assets)								
Currency swaps and forward exchange contracts (liabilities)								
<b>Total swaps hedging net investments</b>								
<b>Held for trading</b>								
Other interest rate swaps (assets)	10	<b>14,537</b>						
Other interest rate swaps (liabilities)	(8)	<b>11,443</b>						
<b>Total other interest rate swaps (assets and liabilities)</b>	<b>2</b>	<b>25,980</b>	<b>25,720</b>	<b>109</b>	<b>83</b>	<b>68</b>		
Currency swaps and forward exchange contracts (assets)	354	<b>14,584</b>						
Currency swaps and forward exchange contracts (liabilities)	(39)	<b>1,970</b>						
<b>Total currency swaps and forward exchange contracts (assets and liabilities)</b>	<b>315</b>	<b>16,554</b>	<b>16,106</b>	<b>308</b>	<b>89</b>	<b>45</b>	<b>1</b>	<b>5</b>

<sup>(a)</sup> These amounts set the levels of notional commitment and are not indicative of a contingent gain or loss.



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For the year ended December 31, 2013 (M\$)	Notional value <sup>(a)</sup>							2019 and after
	Fair value	Total	2014	2015	2016	2017	2018	
<b>Assets / (Liabilities)</b>								
<b>Fair value hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)	(325)	<b>10,316</b>						
Swaps hedging fixed-rates bonds (assets)	1,204	<b>16,764</b>						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>879</b>	<b>27,080</b>		<b>4,703</b>	<b>3,594</b>	<b>4,096</b>	<b>5,170</b>	<b>9,517</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(314)	<b>1,884</b>						
Swaps hedging fixed-rates bonds (current portion) (assets)	469	<b>3,852</b>						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>155</b>	<b>5,736</b>	<b>5,736</b>					
<b>Cash flow hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)								
Swaps hedging fixed-rates bonds (assets)	214	<b>2,220</b>						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>214</b>	<b>2,220</b>						<b>2,220</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(6)	<b>166</b>						
Swaps hedging fixed-rates bonds (current portion) (assets)	1	<b>132</b>						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>(5)</b>	<b>298</b>	<b>270</b>	<b>28</b>				
Swaps hedging investments (liabilities)	(26)	<b>197</b>						
Swaps hedging investments (assets)								
<b>Total swaps hedging investments (assets and liabilities)</b>	<b>(26)</b>	<b>197</b>	<b>182</b>	<b>15</b>				
<b>Net investment hedge</b>								
Currency swaps and forward exchange contracts (assets)								
Currency swaps and forward exchange contracts (liabilities)								
<b>Total swaps hedging net investments</b>								
<b>Held for trading</b>								
Other interest rate swaps (assets)	3	<b>5,645</b>						
Other interest rate swaps (liabilities)	(4)	<b>15,606</b>						
<b>Total other interest rate swaps (assets and liabilities)</b>	<b>(1)</b>	<b>21,251</b>	<b>20,862</b>	<b>119</b>	<b>114</b>	<b>86</b>	<b>70</b>	
Currency swaps and forward exchange contracts (assets)	105	<b>6,576</b>						
Currency swaps and forward exchange contracts (liabilities)	(57)	<b>6,119</b>						
<b>Total currency swaps and forward exchange contracts (assets and liabilities)</b>	<b>48</b>	<b>12,695</b>	<b>12,336</b>	<b>268</b>	<b>58</b>	<b>14</b>	<b>19</b>	

<sup>(a)</sup> These amounts set the levels of notional commitment and are not indicative of a contingent gain or loss.

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For the year ended December 31, 2012 (M\$)	Notional value <sup>(a)</sup>							2018 and after
	Fair value	Total	2013	2014	2015	2016	2017	
<b>Assets / (Liabilities)</b>								
<b>Fair value hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)	(14)	2,292						
Swaps hedging fixed-rates bonds (assets)	2,066	20,359						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>2,052</b>	<b>22,651</b>		5,548	4,667	2,768	4,057	5,611
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(111)	780						
Swaps hedging fixed-rates bonds (current portion) (assets)	568	4,768						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>457</b>	<b>5,548</b>	5,548					
<b>Cash flow hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)								
Swaps hedging fixed-rates bonds (assets)	79	2,221						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>79</b>	<b>2,221</b>						2,221
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(5)	195						
Swaps hedging fixed-rates bonds (current portion) (assets)	1	25						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>(4)</b>	<b>220</b>	220					
Swaps hedging investments (liabilities)	(13)	683						
Swaps hedging investments (assets)								
<b>Total swaps hedging investments (assets and liabilities)</b>	<b>(13)</b>	<b>683</b>	481	186	16			
<b>Net investment hedge</b>								
Currency swaps and forward exchange contracts (assets)								
Currency swaps and forward exchange contracts (liabilities)								
<b>Total swaps hedging net investments</b>								
<b>Held for trading</b>								
Other interest rate swaps (assets)	3	14,568						
Other interest rate swaps (liabilities)	(3)	12,328						
<b>Total other interest rate swaps (assets and liabilities)</b>		<b>26,896</b>	26,339	175	116	112	84	70
Currency swaps and forward exchange contracts (assets)	47	6,291						
Currency swaps and forward exchange contracts (liabilities)	(113)	16,128						
<b>Total currency swaps and forward exchange contracts (assets and liabilities)</b>	<b>(66)</b>	<b>22,419</b>	22,135	245	(20)	21	21	17

<sup>(a)</sup> These amounts set the levels of notional commitment and are not indicative of a contingent gain or loss.

**D) Fair value hierarchy**

The fair value hierarchy for financial instruments, excluding commodity contracts, is as follows:

As of December 31, 2014 (M\$)	Quoted prices in			Total
	active markets	Prices based on observable data	Prices based on non observable data	
	for identical assets	(level 2)	(level 3)	
	(level 1)			
Fair value hedge instruments		467		467
Cash flow hedge instruments		235		235
Net investment hedge instruments				
Assets and liabilities held for trading		317		317
Assets available for sale	84			84
<b>Total</b>	<b>84</b>	<b>1,019</b>		<b>1,103</b>





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	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
As of December 31, 2013 (M\$)				
Fair value hedge instruments		1,034		1,034
Cash flow hedge instruments		183		183
Net investment hedge instruments				
Assets and liabilities held for trading		47		47
Assets available for sale	160			160
<b>Total</b>	<b>160</b>	<b>1,264</b>		<b>1,424</b>

	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
As of December 31, 2012 (M\$)				
Fair value hedge instruments		2,509		2,509
Cash flow hedge instruments		62		62
Net investment hedge instruments				
Assets and liabilities held for trading		(66)		(66)
Assets available for sale	121			121
<b>Total</b>	<b>121</b>	<b>2,505</b>		<b>2,626</b>

The description of each fair value level is presented in Note 1 paragraph M(v) to the Consolidated Financial Statements.

**Table of Contents****30) Financial instruments related to commodity contracts**

Financial instruments related to oil, gas and power activities as well as related currency derivatives are recorded at fair value under Other current assets or Other creditors and accrued liabilities depending on whether they are assets or liabilities.

As of December 31, 2014 (M\$)	Gross value before offsetting assets	Gross value before offsetting liabilities	Amounts offset assets <sup>(c)</sup>	Amounts offset liabilities <sup>(c)</sup>	Net balance sheet value presented assets	Net balance sheet value presented liabilities	Other amounts offset	Net carrying amount	Fair value <sup>(b)</sup>
<b>Assets / (Liabilities)</b>									
<b>Crude oil, petroleum products and freight rates activities</b>									
Petroleum products and crude oil swaps	1,505	(465)	(384)	384	1,121	(81)		1,040	1,040
Freight rate swaps									
Forwards <sup>(a)</sup>	168	(197)	(56)	56	112	(141)		(29)	(29)
Options	928	(1,224)	(790)	790	138	(434)		(296)	(296)
Futures	5				5			5	5
Options on futures	307	(130)	(130)	130	177			177	177
Other / Collateral							(505)	(505)	(505)
<b>Total crude oil, petroleum products and freight rates</b>	<b>2,913</b>	<b>(2,016)</b>	<b>(1,360)</b>	<b>1,360</b>	<b>1,553</b>	<b>(656)</b>	<b>(505)</b>	<b>392</b>	<b>392</b>
<b>Gas &amp; Power activities</b>									
Swaps	138	(41)	(19)	19	119	(22)		97	97
Forwards <sup>(a)</sup>	1,110	(671)	(278)	278	832	(393)		439	439
Options	5	(9)	(7)	7	(2)	(2)		(4)	(4)
Futures									
Other / Collateral							(89)	(89)	(89)
<b>Total Gas &amp; Power</b>	<b>1,253</b>	<b>(721)</b>	<b>(304)</b>	<b>304</b>	<b>949</b>	<b>(417)</b>	<b>(89)</b>	<b>443</b>	<b>443</b>
<b>Total</b>	<b>4,166</b>	<b>(2,737)</b>	<b>(1,664)</b>	<b>1,664</b>	<b>2,502</b>	<b>(1,073)</b>	<b>(594)</b>	<b>835</b>	<b>835</b>
<b>Total of fair value non recognized in the balance sheet</b>									

<sup>(a)</sup> Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.

<sup>(b)</sup> When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.

<sup>(c)</sup> Amounts offset in accordance with IAS 32.

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As of December 31, 2013 (M\$)	Gross value before offsetting	Gross value before offsetting	Amounts		Net balance sheet value presented	Net balance sheet value presented	Other amounts not offset	Net carrying amount	Fair value <sup>(b)</sup>	
Assets / (Liabilities)	assets	liabilities	offset	assets offset	liabilities <sup>(c)</sup>	assets	liabilities			
<b>Crude oil, petroleum products and freight rates activities</b>										
Petroleum products and crude oil swaps	94	(204)	(79)		79	15	(125)		(110)	(110)
Freight rate swaps										
Forwards <sup>(a)</sup>	58	(57)	(8)		8	50	(49)		1	1
Options	198	(234)	(62)		62	136	(172)		(36)	(36)
Futures	7	(1)				7	(1)		6	6
Options on futures	68	(57)	(57)		57	11			11	11
Other / Collateral								96	96	96
<b>Total crude oil, petroleum products and freight rates</b>	<b>425</b>	<b>(553)</b>	<b>(206)</b>		<b>206</b>	<b>219</b>	<b>(347)</b>	<b>96</b>	<b>(32)</b>	<b>(32)</b>
<b>Gas &amp; Power activities</b>										
Swaps	69	(21)	(11)		11	58	(10)		48	48
Forwards <sup>(a)</sup>	1,052	(530)	(40)		40	1,012	(490)		522	522
Options		(12)	(11)		11	(11)	(1)		(12)	(12)
Futures										
Other / Collateral								16	16	16
<b>Total Gas &amp; Power</b>	<b>1,121</b>	<b>(563)</b>	<b>(62)</b>		<b>62</b>	<b>1,059</b>	<b>(501)</b>	<b>16</b>	<b>574</b>	<b>574</b>
<b>Total</b>	<b>1,546</b>	<b>(1,116)</b>	<b>(268)</b>		<b>268</b>	<b>1,278</b>	<b>(848)</b>	<b>112</b>	<b>542</b>	<b>542</b>
<b>Total of fair value non recognized in the balance sheet</b>										

<sup>(a)</sup> Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.

<sup>(b)</sup> When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.

<sup>(c)</sup> Amounts offset in accordance with IAS 32.

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As of December 31, 2012 (M\$)	Gross value before offsetting assets	Gross value before offsetting liabilities	Amounts offset assets <sup>(c)</sup>	Amounts offset liabilities <sup>(c)</sup>	Net balance sheet value presented assets	Net balance sheet value presented liabilities	Other amounts no offset	Net carrying amount	Fair value <sup>(b)</sup>
<b>Crude oil, petroleum products and freight rates activities</b>									
Petroleum products and crude oil swaps	188	(222)	(119)	119	69	(103)		(34)	(34)
Freight rate swaps									
Forwards <sup>(a)</sup>	9	(12)	(4)	4	5	(8)		(3)	(3)
Options	305	(329)	(298)	298	7	(31)		(24)	(24)
Futures		(8)				(8)		(8)	(8)
Options on futures	85	(78)	(78)	78	7			7	7
Other / Collateral							29	29	29
<b>Total crude oil, petroleum products and freight rates</b>	<b>587</b>	<b>(649)</b>	<b>(499)</b>	<b>499</b>	<b>88</b>	<b>(150)</b>	<b>29</b>	<b>(33)</b>	<b>(33)</b>
<b>Gas &amp; Power activities</b>									
Swaps	71	(93)	(57)	57	14	(36)		(22)	(22)
Forwards <sup>(a)</sup>	860	(476)	(63)	63	797	(413)		384	384
Options	15	(18)	(15)	15		(3)		(3)	(3)
Futures									
Other / Collateral							41	41	41
<b>Total Gas &amp; Power</b>	<b>946</b>	<b>(587)</b>	<b>(135)</b>	<b>135</b>	<b>811</b>	<b>(452)</b>	<b>41</b>	<b>400</b>	<b>400</b>
<b>Total</b>	<b>1,533</b>	<b>(1,236)</b>	<b>(634)</b>	<b>634</b>	<b>899</b>	<b>(602)</b>	<b>70</b>	<b>367</b>	<b>367</b>
<b>Total of fair value non recognized in the balance sheet</b>									

<sup>(a)</sup> Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.

<sup>(b)</sup> When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.

<sup>(c)</sup> Amounts offset in accordance with IAS 32.

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Most commitments on crude oil and refined products have a short term maturity (less than one year). The maturity of most Gas & Power energy derivatives is less than three years forward.

The changes in fair value of financial instruments related to commodity contracts are detailed as follows:

For the year ended December 31, (M\$)	Fair value as of January 1,	Impact on income	Settled contracts	Other	Fair value as of December 31,
<b>Crude oil, petroleum products and freight rates activities</b>					
<b>2014</b>	<b>(128)</b>	<b>2,471</b>	<b>(1,445)</b>	<b>(1)</b>	<b>897</b>
2013	(62)	2,266	(2,330)	(2)	(128)
2012	(48)	2,176	(2,191)	1	(62)
<b>Gas &amp; Power activities</b>					
<b>2014</b>	<b>558</b>	<b>922</b>	<b>(909)</b>	<b>(39)</b>	<b>532</b>
2013	359	624	(375)	(50)	558
2012	655	755	(1,060)	9	359

The fair value hierarchy for financial instruments related to commodity contracts is as follows:

As of December 31, 2014 (M\$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Crude oil, petroleum products and freight rates activities	239	658		897
Gas & Power activities	92	440		532
<b>Total</b>	<b>331</b>	<b>1,098</b>		<b>1,429</b>

As of December 31, 2013 (M\$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Crude oil, petroleum products and freight rates activities	21	(149)		(128)
Gas & Power activities		558		558
<b>Total</b>	<b>21</b>	<b>409</b>		<b>430</b>

As of December 31, 2012 (M\$)	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
Crude oil, petroleum products and freight rates activities	7	(69)		(62)
Gas & Power activities	(69)	428		359
<b>Total</b>	<b>(62)</b>	<b>359</b>		<b>297</b>

The description of each fair value level is presented in Note 1 paragraph M(v) to the Consolidated Financial Statements.

**31) Financial risks management**

*Oil and gas market related risks*

Due to the nature of its business, the Group has significant oil and gas trading activities as part of its day-to-day operations in order to optimize revenues from its oil and gas production and to obtain favorable pricing to supply its refineries.

In its international oil trading business, the Group follows a policy of not selling its future production. However, in connection with this trading business, the Group, like most other oil companies, uses energy derivative instruments to adjust its exposure to price fluctuations of crude oil, refined products, natural gas, power and coal. The Group also uses freight rate derivative contracts in its shipping

business to adjust its exposure to freight-rate fluctuations. To hedge against this risk, the Group uses various instruments such as futures, forwards, swaps and options on organized markets or over-the-counter markets. The list of the different derivatives held by the Group in these markets is detailed in Note 30 to the Consolidated Financial Statements.

The Trading & Shipping division measures its market risk exposure, *i.e.* potential loss in fair values, on its crude oil, refined products and freight rates trading activities using a value-at-risk technique. This technique is based on an historical model and makes an assessment of the market risk arising from possible future changes in market values over a 24-hour period. The calculation of the range of potential changes in fair values takes into account a

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snapshot of the end-of-day exposures and the set of historical price movements for the last 400 business days for all instruments and maturities in the global trading activities. Options are systematically re-evaluated using appropriate models.

The potential movement in fair values corresponds to a 97.5% value-at-risk type confidence level. This means that the Group's portfolio result is likely to exceed the value-at-risk loss measure once over 40 business days if the portfolio exposures were left unchanged.

*Trading & Shipping : value-at-risk with a 97.5% probability*

As of December 31, (M\$)	High	Low	Average	Year end
<b>2014</b>	<b>12.9</b>	<b>3.3</b>	<b>7.7</b>	<b>5.1</b>
2013	12.9	4.5	8.2	9.8
2012	16.1	4.9	9.5	7.2

As part of its gas, power and coal trading activity, the Group also uses derivative instruments such as futures, forwards, swaps and options in both organized and over-the-counter markets. In general, the transactions are settled at maturity date through physical delivery. The Gas & Power division measures its market risk exposure, i.e. potential loss in fair values, on its trading business using a value-at-risk technique. This technique is based on an historical model and makes an assessment of the market risk arising from possible future changes in market values over a one-day period. The calculation of the range of potential changes in fair values takes into account a snapshot of the end-of-day exposures and the set of historical price movements for the past two years for all instruments and maturities in the global trading business.

*Gas & Power trading : value-at-risk with a 97.5% probability*

As of December 31, (M\$)	High	Low	Average	Year end
<b>2014</b>	<b>15.4</b>	<b>3.2</b>	<b>6.0</b>	<b>4.0</b>
2013	11.4	3.0	5.8	6.2
2012	26.7	3.5	9.5	3.7

The Group has implemented strict policies and procedures to manage and monitor these market risks. These are based on the separation of control and front-office functions and on an integrated information system that enables real-time monitoring of trading activities.

Limits on trading positions are approved by the Group's Executive Committee and are monitored daily. To increase flexibility and encourage liquidity, hedging operations are performed with numerous independent operators, including other oil companies, major energy producers or consumers and financial institutions. The Group has

established counterparty limits and monitors outstanding amounts with each counterparty on an ongoing basis.

*Financial markets related risks*

As part of its financing and cash management activities, the Group uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. The Group may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Notes 1 paragraph M, 20, 28 and 29 to the Consolidated Financial Statements.

Risks relative to cash management operations and to interest rate and foreign exchange financial instruments are managed according to rules set by the Group's senior management, which provide for regular pooling of available cash balances, open positions and management of the financial instruments by the Treasury Department. Excess cash of the Group is deposited mainly in government institutions, deposit banks, or major companies through deposits, reverse repurchase agreements and purchase of commercial paper. Liquidity positions and the management of financial instruments are centralized by the Treasury Department, where they are managed by a team specialized in foreign exchange and interest rate market transactions.

The Cash Monitoring-Management Unit within the Treasury Department monitors limits and positions per bank on a daily basis and results of the Front Office. This unit also prepares marked-to-market valuations of used financial instruments and, when necessary, performs sensitivity analysis.

*Counterparty risk*

The Group has established standards for market transactions under which bank counterparties must be approved in advance, based on an assessment of the counterparty's financial soundness (multi-criteria analysis including a review of market prices and of the Credit Default Swap (CDS), its ratings with Standard &



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Poor's and Moody's, which must be of high quality, and its overall financial condition).

An overall authorized credit limit is set for each bank and is allotted among the subsidiaries and the Group's central treasury entities according to their needs.

To reduce the market value risk on its commitments, in particular for swaps set as part of bonds issuance, the Treasury Department has concluded margin call contracts with significant counterparties.

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### *Currency exposure*

The Group seeks to minimize the currency exposure of each entity to its functional currency (primarily the dollar, the euro, the pound sterling and the Norwegian krone).

For currency exposure generated by commercial activity, the hedging of revenues and costs in foreign currencies is typically performed using currency operations on the spot market and, in some cases, on the forward market. The Group rarely hedges future cash flows, although it may use options to do so.

With respect to currency exposure linked to non-current assets, the Group has a hedging policy of financing these assets in their functional currency.

Net short-term currency exposure is periodically monitored against limits set by the Group's senior management.

The non-current debt described in Note 20 to the Consolidated Financial Statements is generally raised by the corporate treasury entities either directly in dollars or in euros, or in other currencies which are then exchanged for dollars or euros through swap issues to appropriately match general corporate needs. The proceeds from these debt issuances are loaned to affiliates whose accounts are kept in dollars or in euros. Thus, the net sensitivity of these positions to currency exposure is not significant.

The Group's short-term currency swaps, the notional value of which appears in Note 29 to the Consolidated Financial

Statements, are used to attempt to optimize the centralized cash management of the Group. Thus, the sensitivity to currency fluctuations which may be induced is likewise considered negligible.

### *Short-term interest rate exposure and cash*

Cash balances, which are primarily composed of euros and dollars, are managed according to the guidelines established by the Group's senior management (to maintain an adequate level of liquidity, optimize revenue from investments considering existing interest rate yield curves, and minimize the cost of borrowing) over a less than twelve-month horizon and on the basis of a daily interest rate benchmark, primarily through short-term interest rate swaps and short-term currency swaps, without modifying currency exposure.

### *Interest rate risk on non-current debt*

The Group's policy consists of incurring non-current debt primarily at a floating rate, or, if the opportunity arises at the time of an issuance, at a fixed rate. Debt is incurred in dollars, in euros according to general corporate needs. Long-term interest rate and currency swaps may be used to hedge bonds at their issuance in order to create a variable or fixed rate synthetic debt. In order to partially modify the interest rate structure of the long-term debt, TOTAL may also enter into long-term interest rate swaps.

**Table of Contents***Sensitivity analysis on interest rate and foreign exchange risk*

The tables below present the potential impact of an increase or decrease of 10 basis points on the interest rate yield curves for each of the currencies on the fair value of the current financial instruments as of December 31, 2014, 2013 and 2012.

Assets / (Liabilities) (M\$)	Carrying amount	Estimated fair value	Change in fair value due to a change in interest rate by	
			+ 10 basis points	- 10 basis points
<b>As of December 31, 2014</b>				
Bonds (non-current portion, before swaps)	(43,088)	(44,079)	292	(286)
<i>Swaps hedging fixed-rates bonds (liabilities)</i>	<i>(944)</i>	<i>(944)</i>		
<i>Swaps hedging fixed-rates bonds (assets)</i>	<i>1,319</i>	<i>1,319</i>		
Total swaps hedging fixed-rates bonds (assets and liabilities)	375	375	(153)	149
Current portion of non-current debt after swap (excluding capital lease obligations)	4,411	4,411	5	(4)
Other interest rates swaps	2	2	3	(3)
Currency swaps and forward exchange contracts	318	318		
<b>As of December 31, 2013</b>				
Bonds (non-current portion, before swaps)	(33,138)	(33,966)	54	(54)
<i>Swaps hedging fixed-rates bonds (liabilities)</i>	<i>(325)</i>	<i>(325)</i>		
<i>Swaps hedging fixed-rates bonds (assets)</i>	<i>1,418</i>	<i>1,418</i>		
Total swaps hedging fixed-rates bonds (assets and liabilities)	1,092	1,092	(39)	37
Current portion of non-current debt after swap (excluding capital lease obligations)	5,218	5,218	6	(6)
Other interest rates swaps	(1)	(1)	(1)	1
Currency swaps and forward exchange contracts	17	17		
<b>As of December 31, 2012</b>				
Bonds (non-current portion, before swaps)	(28,163)	(28,426)	128	(128)
<i>Swaps hedging fixed-rates bonds (liabilities)</i>	<i>(15)</i>	<i>(15)</i>		
<i>Swaps hedging fixed-rates bonds (assets)</i>	<i>2,145</i>	<i>2,145</i>		
Total swaps hedging fixed-rates bonds (assets and liabilities)	2,131	2,131	(76)	76
Current portion of non-current debt after swap (excluding capital lease obligations)	5,608	5,608	5	(5)
Other interest rates swaps			3	(3)
Currency swaps and forward exchange contracts	(66)	(66)		

The impact of changes in interest rates on the cost of net debt before tax is as follows:

For the year ended December 31, (M\$)	2014	2013	2012
Cost of net debt	(640)	(804)	(735)
Interest rate translation of :			
+ 10 basis points	(19)	(15)	(14)
- 10 basis points	19	15	14
+ 100 basis points	(193)	(150)	(136)
- 100 basis points	193	150	136

As a result of the policy for the management of currency exposure previously described, the Group's sensitivity to currency exposure is primarily influenced by the net equity of the subsidiaries whose functional currency is the euro and the ruble, and to a lesser extent, the pound sterling, the Norwegian krone.

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This sensitivity is reflected in the historical evolution of the currency translation adjustment recorded in the statement of changes in consolidated shareholders equity which, over the course of the last three years, is essentially related to the fluctuation of the euro, the ruble and the pound sterling and is set forth in the table below:

	Dollar / Pound					
		Dollar / Euro exchange rates		sterling exchange rates		Dollar / Ruble exchange rates
<b>December 31, 2014</b>		<b>0.82</b>		<b>0.64</b>		<b>59.58</b>
December 31, 2013		0.73		0.60		32.87
December 31, 2012		0.76		0.62		30.57
<b>As of December 31, 2014 (M\$)</b>	<b>Total</b>	<b>Euro</b>	<b>Dollar</b>	<b>Pound sterling</b>	<b>Ruble</b>	<b>Other currencies</b>
Shareholders' equity at historical exchange rate	<b>97,810</b>	26,056	50,179	6,762	6,489	8,324
Currency translation adjustment before net investment hedge	<b>(7,480)</b>	(2,290)		(894)	(3,215)	(1,081)
Net investment hedge - open instruments						
Shareholders' equity at exchange rate as of December 31, 2014	<b>90,330</b>	23,766	50,179	5,868	3,274	7,243
<b>As of December 31, 2013 (M\$)</b>	<b>Total</b>	<b>Euro</b>	<b>Dollar</b>	<b>Pound sterling</b>	<b>Ruble</b>	<b>Other currencies</b>
Shareholders' equity at historical exchange rate	<b>101,444</b>	30,444	50,053	6,776	6,960	7,211
Currency translation adjustment before net investment hedge	<b>(1,203)</b>	148		(543)	(607)	(201)
Net investment hedge - open instruments						
Shareholders' equity at exchange rate as of December 31, 2013	<b>100,241</b>	30,592	50,053	6,233	6,353	7,010
<b>As of December 31, 2012 (M\$)</b>	<b>Total</b>	<b>Euro</b>	<b>Dollar</b>	<b>Pound sterling</b>	<b>Ruble</b>	<b>Other currencies</b>
Shareholders' equity at historical exchange rate	<b>95,665</b>	32,299	41,821	6,673	6,147	8,725
Currency translation adjustment before net investment hedge	<b>(1,696)</b>	(1,020)		(688)	(164)	176
Net investment hedge - open instruments						
Shareholders' equity at exchange rate as of December 31, 2012	<b>93,969</b>	31,279	41,821	5,985	5,983	8,901

**Stock market risk**

The Group holds interests in a number of publicly-traded companies (see Notes 12 and 13 to the Consolidated Financial Statements). The market value of these holdings fluctuates due to various factors, including stock market trends, valuations of the sectors in which the companies operate, and the economic and financial condition of each individual company.

**Liquidity risk**

TOTAL S.A. has confirmed lines of credit granted by international banks, which are calculated to allow it to manage its short-term liquidity needs as required.

As of December 31, 2014, these lines of credit amounted to \$10,514 million, of which \$10,514 million was unused. The agreements for the lines of credit granted to TOTAL S.A. do not contain conditions related to the Company's financial ratios, to its financial ratings from specialized agencies, or to the occurrence of events that could have a material adverse effect on its financial position. As of December 31, 2014, the aggregate amount of the principal confirmed lines of credit granted by international banks to Group companies, including TOTAL S.A., was \$11,064 million, of which \$10,764 million was unused. The lines of credit granted to Group companies other than TOTAL S.A. are not intended to finance the Group's general needs; they are intended to finance either the general needs of the borrowing subsidiary or a specific project.

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The following tables show the maturity of the financial assets and liabilities of the Group as of December 31, 2014, 2013 and 2012 (see Note 20 to the Consolidated Financial Statements).

As of December 31, 2014 (M\$)							
Assets/(Liabilities)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)		(4,793)	(4,547)	(4,451)	(4,765)	(25,606)	(44,162)
Current borrowings	(10,942)						(10,942)
Other current financial liabilities	(180)						(180)
Current financial assets	1,293						1,293
Assets and liabilities available for sale or exchange	56						56
Cash and cash equivalents	25,181						25,181
<b>Net amount before financial expense</b>	<b>15,408</b>	<b>(4,793)</b>	<b>(4,547)</b>	<b>(4,451)</b>	<b>(4,765)</b>	<b>(25,606)</b>	<b>(28,754)</b>
Financial expense on non-current financial debt	(901)	(833)	(783)	(718)	(624)	(1,960)	(5,819)
Interest differential on swaps	369	167	(31)	(127)	(154)	(790)	(566)
<b>Net amount</b>	<b>14,876</b>	<b>(5,459)</b>	<b>(5,361)</b>	<b>(5,296)</b>	<b>(5,543)</b>	<b>(28,356)</b>	<b>(35,139)</b>

As of December 31, 2013 (M\$)							
Assets/(Liabilities)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)		(4,647)	(4,528)	(4,159)	(4,361)	(15,461)	(33,156)
Current borrowings	(11,193)						(11,193)
Other current financial liabilities	(381)						(381)
Current financial assets	739						739
Assets and liabilities available for sale or exchange	179						179
Cash and cash equivalents	20,200						20,200
<b>Net amount before financial expense</b>	<b>9,544</b>	<b>(4,647)</b>	<b>(4,528)</b>	<b>(4,159)</b>	<b>(4,361)</b>	<b>(15,461)</b>	<b>(23,612)</b>
Financial expense on non-current financial debt	(1,005)	(912)	(764)	(701)	(616)	(1,783)	(5,781)
Interest differential on swaps	483	392	138	(33)	(110)	(710)	160
<b>Net amount</b>	<b>9,022</b>	<b>(5,167)</b>	<b>(5,154)</b>	<b>(4,893)</b>	<b>(5,087)</b>	<b>(17,954)</b>	<b>(29,233)</b>

As of December 31, 2012 (M\$)							
Assets/(Liabilities)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)		(5,056)	(4,572)	(2,804)	(4,124)	(10,691)	(27,247)
Current borrowings	(14,535)						(14,535)
Other current financial liabilities	(232)						(232)
Current financial assets	2,061						2,061
Assets and liabilities available for sale or exchange	(997)						(997)
Cash and cash equivalents	20,409						20,409
<b>Net amount before financial expense</b>	<b>6,706</b>	<b>(5,056)</b>	<b>(4,572)</b>	<b>(2,804)</b>	<b>(4,124)</b>	<b>(10,691)</b>	<b>(20,541)</b>
Financial expense on non-current financial debt	(984)	(824)	(685)	(534)	(464)	(1,423)	(4,914)
Interest differential on swaps	490	443	297	140	82	(47)	1,405
<b>Net amount</b>	<b>6,212</b>	<b>(5,437)</b>	<b>(4,960)</b>	<b>(3,198)</b>	<b>(4,506)</b>	<b>(12,161)</b>	<b>(24,050)</b>

In addition, the Group guarantees bank debt and finance lease obligations of certain non-consolidated companies and equity affiliates. A payment would be triggered by failure of the guaranteed party to fulfill its obligation covered by the guarantee, and no assets are held as collateral for these guarantees. Maturity dates and amounts are set forth in Note 23 to the Consolidated Financial Statements ( Guarantees given against borrowings ).

The Group also guarantees the current liabilities of certain non-consolidated companies. Performance under these guarantees would be triggered by a financial default of these entities. Maturity dates and amounts are set forth in Note 23 to the Consolidated Financial Statements ( Guarantees of current liabilities ).

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The following table sets forth financial assets and liabilities related to operating activities as of December 31, 2014, 2013 and 2012 (see Note 28 to the Consolidated Financial Statements).

As of December 31, (M\$)			
Assets/(Liabilities)	2014	2013	2012
Accounts payable	(24,150)	(30,282)	(28,563)
Other operating liabilities	(7,935)	(8,191)	(7,784)
<i>including financial instruments related to commodity contracts</i>	<i>(1,073)</i>	<i>(848)</i>	<i>(602)</i>
Accounts receivable, net	15,704	23,422	25,339
Other operating receivables	10,792	9,917	8,126
<i>including financial instruments related to commodity contracts</i>	<i>2,502</i>	<i>1,278</i>	<i>899</i>
<b>Total</b>	<b>(5,589)</b>	<b>(5,134)</b>	<b>(2,882)</b>

These financial assets and liabilities mainly have a maturity date below one year.

**Credit risk**

Credit risk is defined as the risk of the counterparty to a contract failing to perform or pay the amounts due.

The Group is exposed to credit risks in its operating and financing activities. The Group's maximum exposure to credit risk is partially related to financial assets recorded on its balance sheet, including energy derivative instruments that have a positive market value.

The following table presents the Group's maximum credit risk exposure:

As of December 31, (M\$)			
Assets/(Liabilities)	2014	2013	2012
Loans to equity affiliates ( <i>note 12</i> )	4,626	3,554	3,114
Loans and advances ( <i>note 14</i> )	3,326	3,575	2,912
Hedging instruments of non-current financial debt ( <i>note 20</i> )	1,319	1,418	2,145
Accounts receivable ( <i>note 16</i> )	15,704	23,422	25,339
Other operating receivables ( <i>note 16</i> )	10,792	9,917	8,126
Current financial assets ( <i>note 20</i> )	1,293	739	2,061
Cash and cash equivalents ( <i>note 27</i> )	25,181	20,200	20,409
<b>Total</b>	<b>62,241</b>	<b>62,825</b>	<b>64,106</b>

The valuation allowance on loans and advances and on accounts receivable and other operating receivables is detailed respectively in Notes 14 and 16 to the Consolidated Financial Statements.

As part of its credit risk management related to operating and financing activities, the Group has developed margin call contracts with certain counterparties. As of December 31, 2014, the net amount received as part of these margin calls was \$1,437 million (against \$1,105

million as of December 31, 2013 and \$2,157 million as of December 31, 2012).

The Group has established a number of programs for the sale of trade receivables, without recourse, with various banks, primarily to reduce its exposure to such receivables. As a result of these programs the Group retains no risk of payment default after the sale, but may continue to service the customer accounts as part of a service arrangement on behalf of the buyer and is required to pay to the buyer payments it receives from the customers relating to the receivables sold. As of December 31, 2014, the net value of receivables sold amounted to \$3,036 million. No financial asset or liability remains recognized in the consolidated balance sheet after the date of sale.

Credit risk is managed by the Group's business segments as follows:

**Upstream segment**

**Exploration & Production**

Risks arising under contracts with government authorities or other oil companies or under long-term supply contracts necessary for the development of projects are evaluated during the project approval process. The long-term aspect of these contracts and the high-quality of the other parties lead to a low level of credit risk.

Risks related to commercial operations, other than those described above (which are, in practice, directly monitored by subsidiaries), are subject to procedures for establishing and reviewing credit.

Customer receivables are subject to provisions on a case-by-case basis, based on prior history and management's assessment of the facts and circumstances.

**Gas & Power**

Gas & Power deals with counterparties in the energy, industrial and financial sectors throughout the world. Financial institutions providing credit risk coverage are highly rated international bank and insurance groups.

Potential counterparties are subject to credit assessment and approval before concluding transactions and are thereafter subject to regular review, including re-appraisal and approval of the limits previously granted.

The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as data published by rating agencies. On this basis,

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credit limits are defined for each potential counterparty and, where appropriate, transactions are subject to specific authorizations.

Credit exposure, which is essentially an economic exposure or an expected future physical exposure, is permanently monitored and subject to sensitivity measures.

Credit risk is mitigated by the systematic use of industry standard contractual frameworks that permit netting, enable requiring added security in case of adverse change in the counterparty risk, and allow for termination of the contract upon occurrence of certain events of default.

### ***Refining & Chemicals segment***

#### **Refining & Chemicals**

Credit risk is primarily related to commercial receivables. Internal procedures of Refining & Chemicals include rules for the management of credit describing the fundamentals of internal control in this domain. Each division implements procedures for managing and provisioning credit risk that differ based on the size of the subsidiary and the market in which it operates. The principal elements of these procedures are:

implementation of credit limits with different authorization procedures for possible credit overruns;

use of insurance policies or specific guarantees (letters of credit);

regular monitoring and assessment of overdue accounts (aging balance), including collection procedures; and

provisioning of bad debts on a customer-by-customer basis, according to payment delays and local payment practices (provisions may also be calculated based on statistics).

Counterparties are subject to credit assessment and approval prior to any transaction being concluded. Regular reviews are made for all active counterparties including a re-appraisal and renewing of the granted credit limits. The limits of the counterparties are assessed based on quantitative and qualitative data regarding financial standing, together with the review of any relevant third party and market information, such as that provided by rating agencies and insurance companies.

#### **Trading & Shipping**

Trading & Shipping deals with commercial counterparties and financial institutions located throughout the world.

Counterparties to physical and derivative transactions are primarily entities involved in the oil and gas industry or in the trading of energy commodities, or financial institutions. Credit risk coverage is concluded with financial institutions, international banks and insurance groups selected in accordance with strict criteria.

The Trading & Shipping division has a strict policy of internal delegation of authority governing establishment of country and counterparty credit limits and approval of specific transactions. Credit exposures contracted under these limits and approvals are monitored on a daily basis.

Potential counterparties are subject to credit assessment and approval prior to any transaction being concluded and all active counterparties are subject to regular reviews, including re-appraisal and approval of granted limits. The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as ratings published by Standard & Poor's, Moody's Investors Service and other agencies.

Contractual arrangements are structured so as to maximize the risk mitigation benefits of netting between transactions wherever possible and additional protective terms providing for the provision of security in the event of financial deterioration and the termination of transactions on the occurrence of defined default events are used to the greatest permitted extent.

Credit risks in excess of approved levels are secured by means of letters of credit and other guarantees, cash deposits and insurance arrangements. In respect of derivative transactions, risks are secured by margin call contracts wherever possible.



***Marketing & Services segment***

Internal procedures for the Marketing & Services division include rules on credit risk that describe the basis of internal control in this domain, including the separation of authority between commercial and financial operations. Credit policies are defined at the local level, complemented by the implementation of procedures to monitor customer risk (credit committees at the subsidiary level, the creation of credit limits for corporate customers, portfolio guarantees, etc.).

Each entity also implements monitoring of its outstanding receivables. Risks related to credit may be mitigated or limited by subscription of credit insurance and/or requiring security or guarantees.

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Bad debts are provisioned on a case-by-case basis at a rate determined by management based on an assessment of the risk of credit loss.

### **32) Other risks and contingent liabilities**

TOTAL is not currently aware of any exceptional event, dispute, risks or contingent liabilities that could have a material impact on the assets and liabilities, results, financial position or operations of the Group.

#### **Antitrust investigations**

The principal antitrust proceedings in which the Group's companies are involved are described below.

##### ***Refining & Chemicals segment***

As part of the spin-off of Arkema<sup>(1)</sup> in 2006, TOTAL S.A. and certain other Group companies agreed to grant Arkema for a period of ten years a guarantee for potential monetary consequences related to antitrust proceedings arising from events prior to the spin-off. As of December 31, 2013, all public and civil proceedings covered by the guarantee were definitively resolved in Europe and in the United States. Despite the fact that Arkema has implemented since 2001 compliance procedures that are designed to prevent its employees from violating antitrust provisions, it is not possible to exclude the possibility that the relevant authorities could commence additional proceedings involving Arkema regarding events prior to the spin-off.

##### ***Marketing & Services segment***

Following the appeal lodged by the Group's companies against the European Commission's 2008 decision fining Total Marketing Services an amount of 128.2 million in relation to practices regarding a product line of the Marketing & Services segment, which the company had already paid, and concerning which TOTAL S.A. was declared jointly liable as the parent company, the relevant European court decided during the third quarter of 2013 to reduce the fine imposed on Total Marketing Services to 125.5 million without modifying the liability of TOTAL S.A. as parent company. Appeals have been lodged against this judgment.

In the Netherlands, a civil proceeding was initiated against TOTAL S.A., Total Marketing Services and other companies by third parties alleging damages in connection with practices already sanctioned by the European Commission. At this stage, the plaintiffs have still not communicated the amount of their claim.

Finally, in Italy, in 2013, a civil proceeding was initiated against TOTAL S.A. and its subsidiary Total Aviazione Italia Srl before the competent Italian civil court. The plaintiff claims against TOTAL S.A., its subsidiary and other third parties, damages that it estimates to be nearly 908 million. This procedure follows practices that had been sanctioned by the Italian competition authority in 2006. The procedure has not evolved, the existence and the assessment of the alleged damages in this procedure involving multiple defendants remain strongly contested.

Whatever the evolution of the proceedings described above, the Group believes that their outcome should not have a material adverse effect on the Group's financial situation or consolidated results.

#### **Grande Paroisse**

An explosion occurred at the Grande Paroisse industrial site in the city of Toulouse in France on September 21, 2001. Grande Paroisse, a former subsidiary of Atofina which became a subsidiary of Elf Aquitaine Fertilisants on December 31, 2004, as part of the reorganization of the Chemicals segment, was principally engaged in the production and sale of agricultural fertilizers. The explosion, which involved a stockpile of ammonium nitrate pellets, destroyed a portion of the site and caused the death of thirty-one people, including twenty-one workers at the site, and injured many others. The explosion also caused significant damage to certain property in part of the city of Toulouse.

This plant has been closed and individual assistance packages have been provided for employees. The site has been rehabilitated.

On December 14, 2006, Grande Paroisse signed, under the supervision of the city of Toulouse, a deed whereby it donated the former site of the AZF plant to the greater agglomeration of Toulouse (CAGT) and the *Caisse des dépôts et consignations* and its subsidiary ICADE. Under this deed, TOTAL S.A. guaranteed the site remediation obligations of Grande Paroisse and granted a 10 million endowment to the InNaBioSanté research foundation as part of the setting up of a cancer research center at the site by the city of Toulouse.

*(1) Arkema is used in this section to designate those companies of the Arkema group whose ultimate parent company is Arkema S.A. Arkema became an independent company after being spun-off from TOTAL S.A. in May 2006.*

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After having articulated several hypotheses, the Court-appointed experts did not maintain in their final report filed on May 11, 2006, that the accident was caused by pouring a large quantity of a chlorine compound over ammonium nitrate. Instead, the experts have retained a scenario where a container of chlorine compound sweepings was poured between a layer of wet ammonium nitrate covering the floor and a quantity of dry agricultural nitrate at a location not far from the principal storage site. This is claimed to have caused an explosion which then spread into the main storage site. Grande Paroisse was investigated based on this new hypothesis in 2006; Grande Paroisse is contesting this explanation, which it believes to be based on elements that are not factually accurate.

On July 9, 2007, the investigating magistrate brought charges against Grande Paroisse and the former Plant Manager before the Toulouse Criminal Court. In late 2008, TOTAL S.A. and Mr. Thierry Desmarest, Chairman and CEO at the time of the event, were summoned to appear in Court pursuant to a request by a victims association.

On November 19, 2009, the Toulouse Criminal Court acquitted both the former Plant Manager, and Grande Paroisse due to the lack of reliable evidence for the explosion. The Court also ruled that the summonses against TOTAL S.A. and Mr. Thierry Desmarest were inadmissible.

Due to the presumption of civil liability that applied to Grande Paroisse, the Court declared Grande Paroisse civilly liable for the damages caused by the explosion to the victims in its capacity as custodian and operator of the plant.

The Prosecutor's office, together with certain third parties, appealed the Toulouse Criminal Court verdict. In order to preserve its rights, Grande Paroisse lodged a cross-appeal with respect to civil charges.

By its decision of September 24, 2012, the Court of Appeal of Toulouse (*Cour d'appel de Toulouse*) upheld the lower court verdict pursuant to which the summonses against TOTAL S.A. and Mr. Thierry Desmarest were determined to be inadmissible. This element of the decision has been appealed by certain third parties before the French Supreme Court (*Cour de cassation*).

The Court of Appeal considered, however, that the explosion was the result of the chemical accident described by the court-appointed experts. Accordingly, it convicted the former Plant Manager and Grande Paroisse. This element of the decision has been appealed by the former Plant Manager and Grande Paroisse before the French Supreme Court (*Cour de cassation*), which has the

effect of suspending their criminal sentences.

On January 13, 2015, the French Supreme Court (*Cour de cassation*) fully quashed the decision of September 24, 2012. The impugned decision is set aside and the parties find themselves in the position they were in before the decision was rendered. The case is referred back to the Court of Appeal of Paris for a new criminal trial. The trial date has not yet been set.

A compensation mechanism for victims was set up immediately following the explosion. 2.3 billion was paid for the compensation of claims and related expenses amounts. A 10.3 million reserve remains booked in the Group's consolidated financial statements as of December 31, 2014.

### **Blue Rapid and the Russian Olympic Committee Russian regions and Interneft**

Blue Rapid, a Panamanian company, and the Russian Olympic Committee filed a claim for damages with the Paris Commercial Court against Elf Aquitaine, alleging a so-called non-completion by a former subsidiary of Elf Aquitaine of a contract related to an exploration and production project in Russia negotiated in the early 1990s. Elf Aquitaine believed this claim to be unfounded and opposed it. On January 12, 2009, the Commercial Court of Paris rejected Blue Rapid's claim against Elf Aquitaine and found that the Russian Olympic Committee did not have standing in the matter. Blue Rapid and the Russian Olympic Committee appealed this decision. On June 30, 2011, the Court of Appeal of Paris dismissed as inadmissible the claim of Blue Rapid and the Russian Olympic Committee against Elf Aquitaine, notably on the grounds of the contract having lapsed. Blue Rapid and the Russian Olympic Committee appealed this decision to the French Supreme Court.

In connection with the same facts, and fifteen years after the termination of the exploration and production contract, a Russian company, which was held not to be the contracting party to the contract, and two regions of the Russian Federation that were not even parties to the contract, launched an arbitration procedure against the aforementioned former subsidiary of Elf Aquitaine that was liquidated in 2005, claiming alleged damages of \$22.4 billion. For the same reasons as those successfully adjudicated by Elf Aquitaine against Blue Rapid and the Russian Olympic Committee, the Group considers this claim to be unfounded as a matter of law and fact. The Group has lodged a criminal complaint to denounce the fraudulent claim of which the Group believes it is a victim and, has taken and reserved its rights to take other actions and measures to defend its interests.

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### **Iran**

In 2003, the United States Securities and Exchange Commission (SEC) followed by the Department of Justice (DoJ) issued a formal order directing an investigation in connection with the pursuit of business in Iran by certain oil companies including, among others, TOTAL.

The inquiry concerned an agreement concluded by the Company with consultants concerning gas fields in Iran and aimed at verifying whether certain payments made under this agreement would have benefited Iranian officials in violation of the Foreign Corrupt Practices Act (FCPA) and the Company's accounting obligations.

In late May 2013, and after several years of discussions, TOTAL reached settlements with the U.S. authorities (a Deferred Prosecution Agreement with the DoJ and a Cease and Desist Order with the SEC). These settlements, which put an end to these investigations, were concluded without admission of guilt and in exchange for TOTAL respecting a number of obligations, including the payment of a fine (\$245.2 million) and civil compensation (\$153 million) that occurred during the second quarter of 2013. The reserve of \$398.2 million that was booked in the financial statements as of June 30, 2012, has been fully released. By virtue of these settlements, TOTAL also accepted the appointment of a French independent compliance monitor to review the Group's compliance program and to recommend possible improvements.

With respect to the same facts, TOTAL and its late Chairman and Chief Executive Officer, who was President of the Middle East division at the time of the facts, were placed under formal investigation in France following a judicial inquiry initiated in 2006. In late May 2013, the Prosecutor's office recommended that the case be sent to trial. This position was reiterated by the Prosecutor's office in June 2014. By order notified in October 2014, the investigating magistrate decided to refer the case to trial.

At this point, the Company considers that the resolution of these cases is not expected to have a significant impact on the Group's financial situation or consequences for its future planned operations.

### **Oil-for-Food Program**

Several countries have launched investigations concerning possible violations related to the United Nations (UN) Oil-for-Food Program in Iraq.

Pursuant to a French criminal investigation, certain current or former Group employees were placed under formal criminal investigation for possible charges as accessories to the misappropriation of Corporate assets and as

accessories to the corruption of foreign public agents. In 2007, the criminal investigation was closed and the case was transferred to the Prosecutor's office. In 2009, the Prosecutor's office recommended to the investigating magistrate that the case against the Group's current and former employees and TOTAL's late Chairman and Chief Executive Officer, formerly President of the Group's Exploration & Production division, not be pursued.

In early 2010, despite the recommendation of the Prosecutor's office, a new investigating magistrate, having taken over the case, decided to indict TOTAL S.A. on bribery charges as well as complicity and influence peddling. The indictment was brought eight years after the beginning of the investigation without any new evidence being introduced.

In October 2010, the Prosecutor's office recommended to the investigating magistrate that the case against TOTAL S.A., the Group's former employees and TOTAL's late Chairman and Chief Executive Officer not be pursued. However, by ordinance notified in early August 2011, the investigating magistrate on the matter decided to send the case to trial. On July 8, 2013, TOTAL S.A., the Group's former employees and TOTAL's late Chairman and Chief Executive Officer were cleared of all charges by the Criminal Court, which found that none of the offenses for which they had been prosecuted were established. On July 18, 2013, the Prosecutor's office appealed the parts of the Criminal Court's decision acquitting TOTAL S.A. and certain of the Group's former employees. TOTAL's late Chairman and Chief Executive Officer's acquittal issued on July 8, 2013 was irrevocable since the Prosecutor's office did not appeal this part of the Criminal Court's decision. The appeal hearing is expected to start in October 2015.

### **Italy**

As part of an investigation led by the Prosecutor of the Republic of the Potenza Court, Total Italia and certain Group employees were the subjects of an investigation related to certain calls for tenders that Total Italia made for the preparation and development of an oil field.

The criminal investigation was closed in the first half of 2010.

In May 2012, the Judge of the preliminary hearing decided to dismiss the charges against some of the Group's employees and to refer the case for trial for a reduced number of charges. The trial started in September 2012.

### **Rivunion**

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On July 9, 2012, the Swiss *Tribunal Fédéral* (Switzerland's Supreme Court) rendered a decision against Rivunion, a

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wholly-owned subsidiary of Elf Aquitaine, confirming a tax reassessment in the amount of CHF 171 million (excluding interest for late payment). According to the *Tribunal*, Rivunion was held liable as tax collector for withholding taxes owed by the beneficiaries of taxable services. Rivunion, in liquidation since March 13, 2002 and unable to recover the amounts corresponding to the withholding taxes in order to meet its fiscal obligations, has been subject to insolvency proceedings since November 1, 2012. On August 29, 2013, the Swiss federal tax administration lodged a claim as part of the insolvency proceedings of Rivunion, for an amount of CHF 284 million, including CHF 171 million of principal as well as interest for late payment.

### **Total Gabon**

On February 14, 2014, Total Gabon received a tax re-assessment notice from the *Ministère de l'Économie et de la Prospective* of the Gabonese Republic accompanied by a partial tax collection notice, following the tax audit of Total Gabon in relation to the years 2008 to 2010. The partial tax collection procedure was suspended on March 5, 2014 further to the action that Total Gabon engaged before the Tax Administration.

Discussions with the Gabonese authorities led to the termination in early November 2014 of the tax assessment procedure to which Total Gabon was subject. Net income for Total Gabon as of September 30, 2014 includes the impact of the closing of this procedure, following which Total Gabon obtained a tax clearance for the relevant period, extended to and including the years 2011 to 2013.

### **Kashagan**

In Kazakhstan, the start-up of production of the Kashagan field, in which TOTAL holds an interest of 16.81%, occurred on September 11, 2013. Following the detection of a gas leak from the export pipeline, production was stopped on September 24, 2013. Production was resumed but then stopped again shortly thereafter following the detection of another leak. Pressure tests were performed in a fully controlled environment revealing some other potential leaks/cracks. The production of the field was stopped and a thorough investigation was launched.

After the identification of a significant number of anomalies in the oil and gas export lines, it was decided to replace both pipelines. The remedial work will be conducted according to best international oil and gas field practices and strict HSE requirements in order to address, mitigate and remedy all problems prior to the restart of production.

On December 13, 2014, the Republic of Kazakhstan and the co-venturers of the consortium settled the disputes

raised over the last several years concerning a number of operational, financial and environmental matters. This settlement agreement definitively closed these proceedings without a significant impact on the Group's financial situation or consolidated results.

### **Russia**

Since July 2014, members of the international community have adopted economic sanctions against certain Russian persons and entities, including various entities operating in the financial, energy and defense sectors, in response to the situation in Ukraine.

Among other things, the U.S. Treasury Department's Office of Foreign Assets Control (OFAC) has adopted economic sanctions targeting OAO Novatek, a Russian company listed on the Moscow Interbank Currency Exchange and the London Stock Exchange in which the Group held an 18.24% interest as of December 31, 2014 through its subsidiary TOTAL E&P Holdings Russia, and entities in which OAO Novatek (individually or with other similarly targeted persons or entities collectively) owns an interest of at least 50%. The OFAC sanctions applicable to OAO Novatek prohibit U.S. persons from transacting in, providing financing for or otherwise dealing in debt issued after July 16, 2014 of greater than 90 days maturity, including OAO Yamal LNG, which is jointly-owned by OAO Novatek (60%), TOTAL E&P Yamal (20%) and CNODC (20%), a subsidiary of CNPC. Consequently, the use of the U.S. dollar for such financing is effectively prohibited.

In order to comply with these sanctions, the financing plan for the Yamal LNG project is being reviewed, and the project's partners are engaged in efforts to develop an alternate financing plan in line with the applicable regulations.

TOTAL continues to closely monitor the different international economic sanctions with respect to its activities in Russia. Within this framework, the Group is filing the requests for prior authorizations required by EU restrictive measures concerning technical assistance, brokering services, financing and financial assistance related to certain technologies. The Treasury Department of the French Ministry of Finance, the competent authority on the subject, issued authorizations especially for the projects of Yamal LNG, Kharyaga and Termokarstovoye. The United States has also imposed export controls and restrictions on the export of goods, services, and technologies for use in certain Russian energy projects that may affect TOTAL's activities in Russia.

Since July 18, 2014, the Group has not acquired any additional shares of OAO Novatek.





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### **Djibouti**

Following the confirmation of their conviction by a final judgment of the facts regarding pollution that occurred in the port of Djibouti in 1997, Total Djibouti SA and Total Marketing Djibouti SA each received in September 2014 an order to pay 53.8 million to the Republic of Djibouti. The amounts were contested by the two companies which, unable to deal with the liability, in accordance with local law, filed declarations of insolvency with the court on October 7, 2014. With respect to Total Djibouti SA, the insolvency proceeding comprised a recovery plan.

Following a judgment delivered on November 18, 2014, the recovery plan proposed by Total Djibouti SA was rejected and the two companies were put into liquidation.

Total Djibouti SA, a subsidiary indirectly 100% owned of TOTAL S.A., fully holds the capital of Total Marketing Djibouti SA.

### **33) Other information**

Research and development costs incurred by the Group in 2014 amounted to \$1,353 million (\$1,260 million in 2013 and \$1,034 million in 2012), corresponding to 0.57% of the sales.

The staff dedicated in 2014 to these research and development activities are estimated at 4,840 people (4,684 in 2013 and 4,110 in 2012).

### **34) Changes in progress in the Group structure**

#### **Upstream**

TOTAL announced in November 2012 an agreement for the sale in Nigeria of its 20% interest in block OML 138 to a subsidiary of China Petrochemical Corporation (Sinopec). On July 17, 2014, Sinopec informed the Group of its decision to not complete the transaction. The Group is actively pursuing its divestment process. At December 31, 2014 the assets and liabilities have been respectively classified in the consolidated balance sheet in assets classified as held for sale for an amount of \$2,401 million and liabilities directly associated with the assets classified as held for sale for an amount of \$831 million. The assets concerned mainly include tangible assets for an amount of \$2,175 million.

TOTAL has signed in July 2014 an agreement with Exxaro Resources Ltd for the sale of its 100% stake in Total Coal South Africa, its coal-producing affiliate in South Africa. Completion of the sale is subject to approval by the relevant authorities. At December 31, 2014 the assets and liabilities have been respectively classified in the consolidated balance sheet in assets classified as held for sale for an amount of \$469 million and liabilities directly associated with the assets classified as held for sale for an amount of \$58 million. The assets concerned mainly include tangible assets for an amount of \$398 million.

#### **Marketing & Services**

TOTAL announced in July 2014 that it had entered into exclusive negotiations with UGI Corporation, the parent company of Antargaz, having received a firm offer from the U.S. company to acquire 100% of the outstanding shares of Totalgaz, the Group's liquefied petroleum gas (LPG) distributor in France. At December 31, 2014 the assets and liabilities have been respectively classified in the consolidated balance sheet in assets classified as held for sale for an amount of \$367 million and liabilities directly associated with the assets classified as held for sale for an amount of \$265 million. The assets and liabilities concerned mainly include tangible assets for an amount of \$158 million, trade receivables for an amount of \$126 million, deposits and guarantees received for an amount of \$120 million and accounts payable for an amount of \$85 million.

#### **Refining & Chemicals**

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TOTAL announced in September 2014 that it had received an offer from the French group Arkema, one of the worlds major players in specialty chemicals, to acquire its subsidiary Bostik, a global company specializing in chemical adhesives. At December 31, 2014 the assets and liabilities have been respectively classified in the consolidated balance sheet in assets classified as held for sale for an amount of \$1,664 million and liabilities directly associated with the assets classified as held for sale for an amount of \$606 million. The assets and liabilities concerned mainly include intangible assets for an amount of \$561, tangible assets for an amount of \$356 million, trade receivables for an amount of \$346 million, inventories for an amount of \$220 million, provisions for employee benefits for an amount of \$188 million and accounts payable for an amount of \$193 million. The sale has been finalized on February 2, 2015.

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**Table of Contents****35) Consolidation scope**

As of December 31, 2014, 903 entities are consolidated of which 818 are fully consolidated and 85 are accounted for under equity method (E).

The table below sets forth the Group's consolidated entities:

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Upstream	ABU DHABI GAS INDUSTRIES LIMITED	15.00%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	ABU DHABI GAS LIQUEFACTION COMPANY LTD	5.00%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	ABU DHABI MARINE AREAS LIMITED	33.33%	E	UNITED KINGDOM	UNITED ARAB EMIRATES
	ABU DHABI PETROLEUM COMPANY LIMITED	23.75%	E	UNITED KINGDOM	UNITED ARAB EMIRATES
	ANGOLA BLOCK 14 B.V.	50.01%		NETHERLANDS	ANGOLA
	ANGOLA LNG LIMITED	13.60%	E	BERMUDA	ANGOLA
	ANGOLA LNG SUPPLY SERVICES LLC	13.60%	E	UNITED STATES	UNITED STATES
	BONNY GAS TRANSPORT LIMITED	15.00%	E	BERMUDA	NIGERIA
	BRASS HOLDINGS S.A.R.L.	100.00%		LUXEMBOURG	LUXEMBOURG
	BRASS LNG LTD	20.48%	E	NIGERIA	NIGERIA
	CDF ENERGIE	100.00%		FRANCE	FRANCE
	CEPSA GAS COMERCIALIZADORA S.A.	35.00%	E	SPAIN	SPAIN
	DEER CREEK PIPELINES LIMITED	75.00%		CANADA	CANADA
	DOLPHIN ENERGY LIMITED	24.50%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	DORSTFONTEIN COAL MINES (PROPRIETARY) LIMITED	74.00%		SOUTH AFRICA	SOUTH AFRICA
	E. F. OIL AND GAS LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	EASTERN POWER AND ELECTRIC COMPANY LIMITED	28.00%	E	THAILAND	THAILAND
	ELF EXPLORATION PRODUCTION	100.00%		FRANCE	FRANCE
	ELF EXPLORATION UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	ELF HYDROCARBONS LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	ELF PETROLEUM IRAN	100.00%		FRANCE	IRAN
	ELF PETROLEUM UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	ELOFF MINING COMPANY (PROPRIETARY) LTD	51.01%		SOUTH AFRICA	SOUTH AFRICA
	FINA EXPLORATION LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	FINA PETROLEUM DEVELOPMENT LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	FINOSCA	100.00%		COLOMBIA	COLOMBIA
	FORZANDO COAL MINES (PROPRIETARY) LIMITED	86.74%		SOUTH AFRICA	SOUTH AFRICA
	FOSMAX LNG	27.50%	E	FRANCE	FRANCE
	GAS DEL LITORAL SRLCV	25.00%	E	MEXICO	MEXICO
	GAS INVESTMENT AND SERVICES COMPANY LTD	10.00%	E	UNITED KINGDOM	OMAN
	GEOMETHANE	28.04%	E	FRANCE	FRANCE
	GEOSUD	56.08%	E	FRANCE	FRANCE
	GULF TOTAL TRACTEBEL POWER COMPANY PSJC	20.00%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	HAZIRA LNG PRIVATE LIMITED	26.00%	E	INDIA	INDIA
	HAZIRA PORT PRIVATE LIMITED	26.00%	E	INDIA	INDIA
	ICHTHYS LNG PTY LTD	30.00%	E	AUSTRALIA	AUSTRALIA
	ITHEMBA FARM PROPRIETARY LTD	100.00%		SOUTH AFRICA	SOUTH AFRICA
	MABRUK OIL OPERATIONS	100.00%		FRANCE	STATE OF LIBYA
	MANYEKA COAL MINES (PROPRIETARY) LIMITED	100.00%		SOUTH AFRICA	SOUTH AFRICA
	MASINKETA COAL MINES PROPRIETARY LIMITED	74.00%		SOUTH AFRICA	SOUTH AFRICA

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MMAKAU COAL (PROPRIETARY) LIMITED	49.00%	E	SOUTH AFRICA	SOUTH AFRICA
MOATTAMA GAS TRANSPORTATION COMPANY LIMITED	31.24%	E	BERMUDA	MYANMAR
NATIONAL GAS SHIPPING COMPANY LTD	5.00%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
NEWCASTLE COAL MINES (PROPRIETARY) LIMITED	100.00%		SOUTH AFRICA	SOUTH AFRICA
NIGERIA LNG LTD	15.00%	E	NIGERIA	NIGERIA
NORPIPE OIL A/S	34.93%	E	NORWAY	NORWAY
NORPIPE PETROLEUM UK LTD	32.87%	E	UNITED KINGDOM	NORWAY
NORSEA PIPELINE LIMITED	32.87%	E	UNITED KINGDOM	NORWAY
NOVATEK	18.24%	E	RUSSIAN FEDERATION	RUSSIAN FEDERATION
OMAN LNG LLC	5.54%	E	OMAN	OMAN
PARS LNG LIMITED	40.00%	E	BERMUDA	IRAN
PETROCEDENO	30.32%	E	VENEZUELA	VENEZUELA
PRIVATE OIL HOLDINGS OMAN LTD	10.00%	E	UNITED KINGDOM	OMAN

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	QATAR LIQUEFIED GAS COMPANY LIMITED (II)	16.70%	E	QATAR	QATAR
	QATARGAS LIQUEFIED GAS COMPANY LIMITED	10.00%	E	QATAR	QATAR
	RUWAI FERTILIZER INDUSTRIES LIMITED	33.33%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	SHTOKMAN DEVELOPMENT AG	25.00%	E	SWITZERLAND	RUSSIAN FEDERATION
	SOUTH ASIA LPG PRIVATE LIMITED	50.00%	E	INDIA	INDIA
	SOUTH HOOK CHP	8.35%	E	UNITED KINGDOM	UNITED KINGDOM
	SOUTH HOOK LNG TERMINAL COMPANY LTD	8.35%	E	UNITED KINGDOM	UNITED KINGDOM
	TERNEFTEGAS LLC	58.30%	E	RUSSIAN FEDERATION	RUSSIAN FEDERATION
	TOTAL (BTC) B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL ABU AL BU KHOOSH	100.00%		FRANCE	UNITED ARAB EMIRATES
	TOTAL AUSTRAL	100.00%		FRANCE	ARGENTINA
	TOTAL COAL SOUTH AFRICA (PTY) LTD	100.00%		SOUTH AFRICA	SOUTH AFRICA
	TOTAL COLOMBIA PIPELINE	100.00%		FRANCE	COLOMBIA
	TOTAL DOLPHIN MIDSTREAM LIMITED	100.00%		BERMUDA	BERMUDA
	TOTAL E&P ABSHERON B.V.	100.00%		NETHERLANDS	AZERBAIJAN
	TOTAL E&P ALGERIE	100.00%		FRANCE	ALGERIA
	TOTAL E&P AMBORIP VI	100.00%		FRANCE	INDONESIA
	TOTAL E&P ANGOLA	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 15/06 LIMITED	100.00%		BERMUDA	ANGOLA
	TOTAL E&P ANGOLA BLOCK 17.06	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 25	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 31 LIMITED	100.00%		BAHAMAS	ANGOLA
	TOTAL E&P ANGOLA BLOCK 32	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 33	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 39	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 40	100.00%		FRANCE	ANGOLA
	TOTAL E&P ARAFURA SEA	100.00%		FRANCE	INDONESIA
	TOTAL E&P ARUBA B.V.	100.00%		NETHERLANDS	ARUBA
	TOTAL E&P AUSTRALIA	100.00%		FRANCE	AUSTRALIA
	TOTAL E&P AUSTRALIA II	100.00%		FRANCE	AUSTRALIA
	TOTAL E&P AUSTRALIA III	100.00%		FRANCE	AUSTRALIA
	TOTAL E&P AZERBAIJAN B.V.	100.00%		NETHERLANDS	AZERBAIJAN
	TOTAL E&P BOLIVIE	100.00%		FRANCE	BOLIVIA
	TOTAL E&P BORNEO B.V.	100.00%		NETHERLANDS	BRUNEI
	TOTAL E&P BULGARIA B.V.	100.00%		NETHERLANDS	BULGARIA
	TOTAL E&P CAMBODGE	100.00%		FRANCE	CAMBODIA
	TOTAL E&P CANADA LTD	100.00%		CANADA	CANADA
	TOTAL E&P CHINE	100.00%		FRANCE	CHINA
	TOTAL E&P COLOMBIE	100.00%		FRANCE	COLOMBIA
	TOTAL E&P CONGO	85.00%		CONGO	CONGO
	TOTAL E&P COTE D IVOIRE	100.00%		FRANCE	IVORY COAST
	TOTAL E&P COTE D IVOIRE CI-514	100.00%		FRANCE	IVORY COAST
	TOTAL E&P COTE D IVOIRE CI-515	100.00%		FRANCE	IVORY COAST
	TOTAL E&P COTE D IVOIRE CI-516	100.00%		FRANCE	IVORY COAST
	TOTAL E&P CYPRUS B.V.	100.00%		NETHERLANDS	CYPRUS
	TOTAL E&P DEEP OFFSHORE BORNEO B.V.	100.00%		NETHERLANDS	BRUNEI
	TOTAL E&P DENMARK B.V.	100.00%		NETHERLANDS	DENMARK
	TOTAL E&P DO BRASIL LTDA	100.00%		BRAZIL	BRAZIL
	TOTAL E&P DOLPHIN UPSTREAM LIMITED	100.00%		BERMUDA	QATAR
	TOTAL E&P EAST EL BURULLUS OFFSHORE B.V.	100.00%		NETHERLANDS	EGYPT
	TOTAL E&P EGYPT BLOCK 2 B.V.	100.00%		NETHERLANDS	EGYPT
	TOTAL E&P EGYPT	100.00%		FRANCE	EGYPT

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TOTAL E&P FRANCE	100.00%	FRANCE	FRANCE
TOTAL E&P GOLFE HOLDINGS LTD	100.00%	BERMUDA	BERMUDA
TOTAL E&P GOLFE LIMITED	100.00%	UNITED ARAB EMIRATES	QATAR
TOTAL E&P GUYANE FRANCAISE	100.00%	FRANCE	FRANCE
TOTAL E&P HOLDING ICHTHYS	100.00%	FRANCE	FRANCE
TOTAL E&P HOLDINGS AUSTRALIA PTY	100.00%	AUSTRALIA	AUSTRALIA
TOTAL E&P HOLDINGS RUSSIA	100.00%	FRANCE	FRANCE
TOTAL E&P HYDROCARBONS YEMEN B.V.	100.00%	NETHERLANDS	YEMEN
TOTAL E&P ICHTHYS	100.00%	FRANCE	AUSTRALIA
TOTAL E&P ICHTHYS B.V.	100.00%	NETHERLANDS	AUSTRALIA
TOTAL E&P INDONESIA GMB KUTAI II	100.00%	FRANCE	INDONESIA
TOTAL E&P INDONESIA MENTAWAI B.V. MANDAR	100.00%	NETHERLANDS	INDONESIA
TOTAL E&P INDONESIA SOUTH MANDAR	100.00%	FRANCE	INDONESIA
TOTAL E&P INDONESIA TELEN B.V.	100.00%	NETHERLANDS	INDONESIA

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	TOTAL E&P INDONESIA WEST PAPUA	100.00%		FRANCE	INDONESIA
	TOTAL E&P INDONESIA	100.00%		FRANCE	INDONESIA
	TOTAL E&P IRAN	100.00%		FRANCE	IRAN
	TOTAL E&P IRAQ	100.00%		FRANCE	IRAQ
	TOTAL E&P ITALIA	100.00%		ITALY	ITALY
	TOTAL E&P KAZAKHSTAN	100.00%		FRANCE	KAZAKHSTAN
	TOTAL E&P KENYA B.V.	100.00%		NETHERLANDS	KENYA
	TOTAL E&P KURDISTAN REGION OF IRAQ (HARIR) B.V.	100.00%		NETHERLANDS	IRAQ
	TOTAL E&P KURDISTAN REGION OF IRAQ (SAFEN) B.V.	100.00%		NETHERLANDS	IRAQ
	TOTAL E&P KURDISTAN REGION OF IRAQ (TAZA) B.V.	100.00%		NETHERLANDS	IRAQ
	TOTAL E&P KURDISTAN REGION OF IRAQ B.V.	100.00%		NETHERLANDS	IRAQ
	TOTAL E&P KUTAI TIMUR	100.00%		FRANCE	INDONESIA
	TOTAL E&P LIBYE	100.00%		FRANCE	STATE OF LIBYA
	TOTAL E&P LUBLIN B.V.	100.00%		NETHERLANDS	POLAND
	TOTAL E&P MADAGASCAR	100.00%		FRANCE	MADAGASCAR
	TOTAL E&P MALAYSIA	100.00%		FRANCE	MALAYSIA
	TOTAL E&P MAROC	100.00%		FRANCE	MOROCCO
	TOTAL E&P MAURITANIA BLOCK C9 B.V.	100.00%		NETHERLANDS	MAURITANIA
	TOTAL E&P MAURITANIE	100.00%		FRANCE	MAURITANIA
	TOTAL E&P MAURITANIE BLOCK TA29 B.V.	100.00%		NETHERLANDS	MAURITANIA
	TOTAL E&P MONTELMAR	100.00%		FRANCE	FRANCE
	TOTAL E&P MOZAMBIQUE B.V.	100.00%		NETHERLANDS	MOZAMBIQUE
	TOTAL E&P MYANMAR	100.00%		FRANCE	MYANMAR
	TOTAL E&P NEDERLAND B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL E&P NEW VENTURES INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL E&P NIGERIA DEEPWATER A LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA DEEPWATER B LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA DEEPWATER C LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA DEEPWATER D LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA DEEPWATER E LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA DEEPWATER F LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA DEEPWATER G LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA DEEPWATER H LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA LTD	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NORGE AS	100.00%		NORWAY	NORWAY
	TOTAL E&P NURMUNAI	100.00%		FRANCE	KAZAKHSTAN
	TOTAL E&P OMAN	100.00%		FRANCE	OMAN
	TOTAL E&P OMAN PETROLEUM B.V.	100.00%		NETHERLANDS	OMAN
	TOTAL E&P PHILIPPINES B.V.	100.00%		NETHERLANDS	PHILIPPINES
	TOTAL E&P PNG 1 B.V.	100.00%		NETHERLANDS	PAPUA NEW GUINEA
	TOTAL E&P PNG 2 B.V.	100.00%		NETHERLANDS	PAPUA NEW GUINEA
	TOTAL E&P PNG 3 B.V.	100.00%		NETHERLANDS	PAPUA NEW GUINEA
	TOTAL E&P PNG 4 B.V.	100.00%		NETHERLANDS	PAPUA NEW GUINEA
	TOTAL E&P PNG 5 B.V.	100.00%		NETHERLANDS	PAPUA NEW GUINEA
	TOTAL E&P PNG LIMITED	100.00%		PAPUA NEW GUINEA	PAPUA NEW GUINEA
	TOTAL E&P POLAND B.V.	100.00%		NETHERLANDS	POLAND
	TOTAL E&P QATAR	100.00%		FRANCE	QATAR
	TOTAL E&P RDC	100.00%		DEMOCRATIC REPUBLIC OF CONGO	DEMOCRATIC REPUBLIC OF CONGO

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TOTAL E&P RESEARCH & TECHNOLOGY USA LLC	100.00%	UNITED STATES	UNITED STATES
TOTAL E&P RUSSIE	100.00%	FRANCE	RUSSIAN FEDERATION
TOTAL E&P SADANG	100.00%	FRANCE	INDONESIA
TOTAL E&P SAGERI	100.00%	FRANCE	INDONESIA
TOTAL E&P SEBUKU	100.00%	FRANCE	INDONESIA
TOTAL E&P SHTOKMAN	100.00%	FRANCE	RUSSIAN FEDERATION
TOTAL E&P SOUTH AFRICA B.V.	100.00%	NETHERLANDS	SOUTH AFRICA
TOTAL E&P SOUTH EAST MAHAKAM	100.00%	FRANCE	INDONESIA
TOTAL E&P SOUTH SAGERI	100.00%	FRANCE	INDONESIA
TOTAL E&P SOUTH SUDAN	100.00%	FRANCE	REPUBLIC OF SOUTH SUDAN
TOTAL E&P SYRIE	100.00%	FRANCE	SYRIAN ARAB REPUBLIC
TOTAL E&P TAJIKISTAN B.V.	100.00%	NETHERLANDS	TAJKISTAN

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	TOTAL E&P THAILAND	100.00%		FRANCE	THAILAND
	TOTAL E&P UGANDA B.V.	100.00%		NETHERLANDS	UGANDA
	TOTAL E&P UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL E&P URUGUAY B.V.	100.00%		NETHERLANDS	URUGUAY
	TOTAL E&P URUGUAY ONSHORE B.V.	100.00%		NETHERLANDS	URUGUAY
	TOTAL E&P USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL E&P USA OIL SHALE, LLC	100.00%		UNITED STATES	UNITED STATES
	TOTAL E&P WELL RESPONSE	100.00%		FRANCE	FRANCE
	TOTAL E&P YAMAL	100.00%		FRANCE	FRANCE
	TOTAL E&P YEMEN	100.00%		FRANCE	YEMEN
	TOTAL E&P YEMEN BLOCK 3 B.V.	100.00%		NETHERLANDS	YEMEN
	TOTAL ENERGIE GAZ	100.00%		FRANCE	FRANCE
	TOTAL EXPLORATION M BRIDGE	100.00%		NETHERLANDS	ANGOLA
	TOTAL EXPLORATION PRODUCTION NIGERIA	100.00%		FRANCE	FRANCE
	TOTAL FACILITIES MANAGEMENT B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL GABON	58.28%		GABON	GABON
	TOTAL GAS & POWER ACTIFS INDUSTRIELS	100.00%		FRANCE	FRANCE
	TOTAL GAS & POWER ASIA PRIVATE LIMITED	100.00%		SINGAPORE	SINGAPORE
	TOTAL GAS & POWER BRAZIL	100.00%		FRANCE	FRANCE
	TOTAL GAS & POWER CHARTERING LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL GAS & POWER INDIA	100.00%		FRANCE	FRANCE
	TOTAL GAS & POWER LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL GAS & POWER NORTH AMERICA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL GAS & POWER SERVICES LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL GAS & POWER THAILAND	100.00%		FRANCE	FRANCE
	TOTAL GAS CONTRACTS LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL GAS PIPELINE USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL GAS SHALE EUROPE	100.00%		FRANCE	FRANCE
	TOTAL GAS TRANSPORT VENTURES	100.00%		FRANCE	AZERBAIJAN
	TOTAL GAS Y ELECTRICIDAD ARGENTINA S.A.	100.00%		ARGENTINA	ARGENTINA
	TOTAL GASANDES	100.00%		FRANCE	FRANCE
	TOTAL GASS HANDEL NORGE AS	100.00%		NORWAY	NORWAY
	TOTAL GASTRANSPORT NEDERLAND B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL GAZ ELECTRICITE HOLDINGS FRANCE	100.00%		FRANCE	FRANCE
	TOTAL GLNG AUSTRALIA	100.00%		FRANCE	AUSTRALIA
	TOTAL HOLDING DOLPHIN AMONT LIMITED	100.00%		BERMUDA	BERMUDA
	TOTAL HOLDINGS INTERNATIONAL B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL HOLDINGS NEDERLAND B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL LNG ANGOLA	100.00%		FRANCE	FRANCE
	TOTAL LNG NIGERIA LIMITED	100.00%		FRANCE	FRANCE
	TOTAL LNG SUPPLY SERVICES USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL MIDSTREAM HOLDINGS UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL NNS LLC	100.00%		UNITED STATES	UNITED KINGDOM
	TOTAL OIL AND GAS SOUTH AMERICA	100.00%		FRANCE	FRANCE
	TOTAL OIL AND GAS VENEZUELA B.V.	100.00%		NETHERLANDS	VENEZUELA
	TOTAL PARS LNG	100.00%		FRANCE	IRAN
	TOTAL PARTICIPATIONS PETROLIERES GABON	100.00%		GABON	GABON
	TOTAL PETROLEUM ANGOLA	100.00%		FRANCE	ANGOLA
	TOTAL PROFILS PETROLIERS	100.00%		FRANCE	FRANCE
	TOTAL QATAR OIL AND GAS	100.00%		FRANCE	FRANCE
	TOTAL SCP S.A.R.L.	100.00%		LUXEMBOURG	LUXEMBOURG
	TOTAL SHTOKMAN B.V.	100.00%		NETHERLANDS	NETHERLANDS

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TOTAL SOUTH PARS	100.00%		FRANCE	IRAN
TOTAL TENGAH	100.00%		FRANCE	INDONESIA
TOTAL TERMOKARSTOVOYE B.V.	100.00%		NETHERLANDS	RUSSIAN FEDERATION
TOTAL TRACTEBEL EMIRATES O & M COMPANY	50.00%	E	FRANCE	UNITED ARAB EMIRATES
TOTAL TRACTEBEL EMIRATES POWER COMPANY	50.00%	E	FRANCE	UNITED ARAB EMIRATES
TOTAL UPSTREAM NIGERIA LIMITED	100.00%		NIGERIA	NIGERIA
TOTAL UPSTREAM UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
TOTAL VENEZUELA	100.00%		FRANCE	VENEZUELA
TOTAL YEMEN LNG COMPANY LTD	100.00%		BERMUDA	BERMUDA

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
Refining & Chemicals	TRANSPORTADORA DE GAS DEL MERCOSUR SA	32.68%	E	ARGENTINA	ARGENTINA
	TUMELO COAL MINES PROPRIETARY LIMITED	49.00%		SOUTH AFRICA	SOUTH AFRICA
	UNITAH COLORADO RESOURCES II, LLC	100.00%		UNITED STATES	UNITED STATES
	YAMAL LNG	30.95%	E	RUSSIAN FEDERATION	RUSSIAN FEDERATION
	YEMEN LNG COMPANY LTD	39.62%	E	BERMUDA	YEMEN
	YPERGAS SA	100.00%		VENEZUELA	VENEZUELA
	APPRYL SNC	50.00%		FRANCE	FRANCE
	ARCHITECTURAL & STRUCTURAL ADHESIVES PTY LTD	100.00%		AUSTRALIA	AUSTRALIA
	ATLANTIC TRADING AND MARKETING INC.	100.00%		UNITED STATES	UNITED STATES
	ATO FINDLEY DEUTSCHLAND GMBH	100.00%		GERMANY	GERMANY
	ATOTECH (CHINA) CHEMICALS LTD.	100.00%		CHINA	CHINA
	ATOTECH ASIA PACIFIC	100.00%		HONG KONG	HONG KONG
	ATOTECH B.V.	100.00%		NETHERLANDS	NETHERLANDS
	ATOTECH CANADA LTD	100.00%		CANADA	CANADA
	ATOTECH CZ	100.00%		CZECH REPUBLIC	CZECH REPUBLIC
	ATOTECH DE MEXICO	100.00%		MEXICO	MEXICO
	ATOTECH DEUTSCHLAND GMBH	100.00%		GERMANY	GERMANY
	ATOTECH DO BRASIL GALVANOTECNICA	100.00%		BRAZIL	BRAZIL
	ATOTECH ESPANA S.A.	100.00%		SPAIN	SPAIN
	ATOTECH FRANCE	100.00%		FRANCE	FRANCE
	ATOTECH INDIA LTD	100.00%		INDIA	INDIA
	ATOTECH ISTANBUL KIMYA SANAYI TICARET LIMITED SIRKETI	100.00%		TURKEY	TURKEY
	ATOTECH ITALIA	100.00%		ITALY	ITALY
	ATOTECH JAPAN	100.00%		JAPAN	JAPAN
	ATOTECH KOREA LTD.	100.00%		REPUBLIC OF KOREA	REPUBLIC OF KOREA
	ATOTECH MALAYSIA SDN BHD	100.00%		MALAYSIA	MALAYSIA
	ATOTECH NEDERLAND B.V.	100.00%		NETHERLANDS	NETHERLANDS
	ATOTECH ÖSTERREICH GMBH	100.00%		AUSTRIA	AUSTRIA
	ATOTECH POLAND	100.00%		POLAND	POLAND
	ATOTECH SEA PTE	100.00%		SINGAPORE	SINGAPORE
	ATOTECH SERVICIOS DE MEXICO SA DE CV	100.00%		MEXICO	MEXICO
	ATOTECH SK	100.00%		SLOVAKIA	SLOVAKIA
	ATOTECH SKANDINAVIEN	100.00%		SWEDEN	SWEDEN
	ATOTECH SLOVENIJA, PROIZVODNJA KEMICNIH IZDELKOV, D.D.	100.00%		SLOVENIA	SLOVENIA
	ATOTECH TAIWAN	100.00%		TAIWAN	TAIWAN
	ATOTECH THAILAND	100.00%		THAILAND	THAILAND
	ATOTECH UK	100.00%		UNITED KINGDOM	UNITED KINGDOM
	ATOTECH USA INC	100.00%		UNITED STATES	UNITED STATES
	ATOTECH VIETNAM COMPANY LIMITED	100.00%		VIETNAM	VIETNAM
	BALZATEX S.A.S.	100.00%		FRANCE	FRANCE
	BARRY CONTROL AEROSPACE SNC	100.00%		FRANCE	FRANCE
	BASF TOTAL PETROCHEMICALS LLC	40.00%		UNITED STATES	UNITED STATES
BAY JUNCTION, INC.	100.00%		UNITED STATES	UNITED STATES	
BORRACHAS PORTALEGRE LTDA	100.00%		PORTUGAL	PORTUGAL	
BOSTIK (SHANGHAI) MANAGEMENT CO. LTD	100.00%		CHINA	CHINA	
BOSTIK (THAILAND) CO. LTD	100.00%		THAILAND	THAILAND	
BOSTIK A/S	100.00%		DENMARK	DENMARK	
BOSTIK AB	100.00%		SWEDEN	SWEDEN	
BOSTIK ARGENTINA S.A.	100.00%		ARGENTINA	ARGENTINA	
BOSTIK AS	100.00%		NORWAY	NORWAY	
BOSTIK AS	100.00%		ESTONIA	ESTONIA	
BOSTIK AUSTRALIA PTY LTD	100.00%		AUSTRALIA	AUSTRALIA	
BOSTIK BELUX NV S.A.	100.00%		BELGIUM	BELGIUM	

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BOSTIK B.V.	100.00%	NETHERLANDS	NETHERLANDS
BOSTIK CANADA LTD	100.00%	CANADA	CANADA
BOSTIK EGYPT FOR PRODUCTION OF ADHESIVES S.A.E.	100.00%	EGYPT	EGYPT
BOSTIK FINDLEY CHINA CO, LTD	100.00%	CHINA	CHINA
BOSTIK FINDLEY HONG KONG COMPANY LIMITED	100.00%	HONG KONG	HONG KONG
BOSTIK FINDLEY MALAYSIA SDN-BHD	100.00%	MALAYSIA	MALAYSIA
BOSTIK GMBH	100.00%	GERMANY	GERMANY
BOSTIK HOLDING BV	100.00%	NETHERLANDS	NETHERLANDS
BOSTIK HOLDING HONG KONG LTD	100.00%	HONG KONG	HONG KONG
BOSTIK HOLDING S.A.	100.00%	FRANCE	FRANCE
BOSTIK INC	100.00%	UNITED STATES	UNITED STATES
BOSTIK INDIA PRIVATE LTD	100.00%	INDIA	INDIA

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	BOSTIK INDUSTRIES LIMITED	100.00%		IRELAND	IRELAND
	BOSTIK KOREA LIMITED	100.00%		REPUBLIC OF KOREA	REPUBLIC OF KOREA
	BOSTIK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	BOSTIK MEXICANA S.A. DE CV	100.00%		MEXICO	MEXICO
	BOSTIK NEDERLAND B.V.	100.00%		NETHERLANDS	NETHERLANDS
	BOSTIK NEW ZEALAND LTD	100.00%		NEW ZEALAND	NEW ZEALAND
	BOSTIK OBERURSEL GMBH	100.00%		GERMANY	GERMANY
	BOSTIK OOO	100.00%		RUSSIAN FEDERATION	RUSSIAN FEDERATION
	BOSTIK OY	100.00%		FINLAND	FINLAND
	BOSTIK PHILIPPINES, INC	100.00%		PHILIPPINES	PHILIPPINES
	BOSTIK POLSKA SP Z.O.O	99.50%		POLAND	POLAND
	BOSTIK S.A.	100.00%		FRANCE	FRANCE
	BOSTIK S.A. (SPAIN)	100.00%		SPAIN	SPAIN
	BOSTIK SIA	100.00%		LATVIA	LATVIA
	BOSTIK UAB (LITHUANIA)	100.00%		LITHUANIA	LITHUANIA
	BOSTIK UNIPessoal LDA	100.00%		PORTUGAL	PORTUGAL
	BOSTIK VIETNAM COMPANY LIMITED	100.00%		VIETNAM	VIETNAM
	BOSTIK-NITTA CO. LTD	66.00%		JAPAN	JAPAN
	BUCKEYE PRODUCTS PIPELINE, L.P.	14.66%	E	UNITED STATES	UNITED STATES
	CAOUTCHOUCS MODERNES SAS	100.00%		FRANCE	FRANCE
	CATELSA-CACERES SAU	100.00%		SPAIN	SPAIN
	CATELSA-PARETS SLU	100.00%		SPAIN	SPAIN
	CEKOMASTIK KIMYA SANAYI VE TICARET A.S	100.00%		TURKEY	TURKEY
	CIE TUNISIENNE DU CAOUTCHOUC SARL	100.00%		TUNISIA	TUNISIA
	COSDEN, LLC	100.00%		UNITED STATES	UNITED STATES
	COS-MAR COMPANY	50.00%		UNITED STATES	UNITED STATES
	CRAY VALLEY (GUANGZHOU) CHEMICAL CO., LTD	100.00%		CHINA	CHINA
	CRAY VALLEY CZECH	100.00%		CZECH REPUBLIC	CZECH REPUBLIC
	CRAY VALLEY HSC ASIA LIMITED	100.00%		CHINA	CHINA
	CRAY VALLEY ITALIA S.R.L.	100.00%		ITALY	ITALY
	CRAY VALLEY S.A.	100.00%		FRANCE	FRANCE
	CSSA CHARTERING AND SHIPPING SERVICES S.A.	100.00%		SWITZERLAND	SWITZERLAND
	DALIAN TOTAL CONSULTING CO LTD	100.00%		CHINA	CHINA
	DALIAN WEST PACIFIC				
	PETROCHEMICAL CO LTD (WEPEC)	22.41%	E	CHINA	CHINA
	ESPA SARL	100.00%		FRANCE	FRANCE
	ETHYLENE EST	99.98%		FRANCE	FRANCE
	FELUY IMMOBATI	100.00%		BELGIUM	BELGIUM
	FINA TECHNOLOGY, INC.	100.00%		UNITED STATES	UNITED STATES
	FPL ENTERPRISES, INC.	100.00%		UNITED STATES	UNITED STATES
	GASKET (SUZHOU) VALVE COMPONENTS CO., LTD.	100.00%		CHINA	CHINA
	GASKET INTERNATIONAL S.P.A.	100.00%		ITALY	ITALY
	GEOSSEL MANOSQUE	53.40%	E	FRANCE	FRANCE
	GRACE DEVELOPMENT LIMITED	100.00%		HONG KONG	HONG KONG
	GRANDE PAROISSE S.A.	100.00%		FRANCE	FRANCE
	GUANGZHOU SPHERE CHEMICALS LTD	100.00%		CHINA	CHINA
	GULF COAST PIPE LINE, L.P.	14.66%	E	UNITED STATES	UNITED STATES
	HBA HUTCHINSON BRASIL AUTOMOTIVE LTDA	100.00%		BRAZIL	BRAZIL
	HUTCHINSON POLYMERS SNC	100.00%		FRANCE	FRANCE
	HUTCHINSON SRO	100.00%		CZECH REPUBLIC	CZECH REPUBLIC
	HUTCHINSON (UK) LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	HUTCHINSON (WUHAN) AUTOMOTIVE	100.00%		CHINA	CHINA
	RUBBER PRODUCTS COMPANY LTD				
	HUTCHINSON AERONAUTIQUE & INDUSTRIE LIMITED	100.00%		CANADA	CANADA
	HUTCHINSON AEROSERVICES GMBH	100.00%		GERMANY	GERMANY

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HUTCHINSON AEROSERVICES S.A.S.	100.00%	FRANCE	FRANCE
HUTCHINSON AEROSERVICES SL	100.00%	SPAIN	SPAIN
HUTCHINSON AEROSPACE & INDUSTRY, INC.	100.00%	UNITED STATES	UNITED STATES
HUTCHINSON AEROSPACE GMBH	100.00%	GERMANY	GERMANY
HUTCHINSON AFTERMARKET USA INC	100.00%	UNITED STATES	UNITED STATES
HUTCHINSON ANTIVIBRATION SYSTEMS, INC.	100.00%	UNITED STATES	UNITED STATES
HUTCHINSON ARGENTINA S.A.	100.00%	ARGENTINA	ARGENTINA
HUTCHINSON AUTOPARTES DE MEXICO S.A. DE CV	100.00%	MEXICO	MEXICO
HUTCHINSON BORRACHAS DE PORTUGAL LTDA	100.00%	PORTUGAL	PORTUGAL
HUTCHINSON CORPORATION	100.00%	UNITED STATES	UNITED STATES

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	HUTCHINSON DO BRASIL S.A.	100.00%		BRAZIL	BRAZIL
	HUTCHINSON FLEXIBLES AUTOMOBILE SNC	100.00%		FRANCE	FRANCE
	HUTCHINSON FTS INC.	100.00%		UNITED STATES	UNITED STATES
	HUTCHINSON GMBH	100.00%		GERMANY	GERMANY
	HUTCHINSON HOLDINGS UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	HUTCHINSON IBERIA, S.A.	100.00%		SPAIN	SPAIN
	HUTCHINSON INDUSTRIAL RUBBER PRODUCTS (SUZHOU) CO,LTD	100.00%		CHINA	CHINA
	HUTCHINSON INDUSTRIAS DEL CAUCHO SAU	100.00%		SPAIN	SPAIN
	HUTCHINSON INDUSTRIES INC.	100.00%		UNITED STATES	UNITED STATES
	HUTCHINSON JAPAN CO., LTD	100.00%		JAPAN	JAPAN
	HUTCHINSON KOREA LIMITED	100.00%		REPUBLIC OF KOREA	REPUBLIC OF KOREA
	HUTCHINSON NICHIRIN BRAKE HOSES, S.L.	70.00%		SPAIN	SPAIN
	HUTCHINSON PALAMOS	100.00%		SPAIN	SPAIN
	HUTCHINSON POLAND SP ZO.O.	100.00%		POLAND	POLAND
	HUTCHINSON PORTO TUBOS FLEXIVEIS LTDA	100.00%		PORTUGAL	PORTUGAL
	HUTCHINSON S.A.	100.00%		FRANCE	FRANCE
	HUTCHINSON SALES CORPORATION	100.00%		UNITED STATES	UNITED STATES
	HUTCHINSON SANTE SNC	100.00%		FRANCE	FRANCE
	HUTCHINSON SEAL DE MEXICO S.A. DE CV	100.00%		MEXICO	MEXICO
	HUTCHINSON SEALING SYSTEMS INC	100.00%		UNITED STATES	UNITED STATES
	HUTCHINSON SNC	100.00%		FRANCE	FRANCE
	HUTCHINSON SRL (ITALIE)	100.00%		ITALY	ITALY
	HUTCHINSON SRL (ROUMANIE)	100.00%		ROMANIA	ROMANIA
	HUTCHINSON STOP-CHOC GMBH & CO. KG	100.00%		GERMANY	GERMANY
	HUTCHINSON SUISSE S.A.	100.00%		SWITZERLAND	SWITZERLAND
	HUTCHINSON TRANSFERENCIA DE FLUIDOS S.A. DE CV	100.00%		MEXICO	MEXICO
	HUTCHINSON TUNISIE SARL	100.00%		TUNISIA	TUNISIA
	INDUSTRIAS TECNICAS DE LA ESPUMA SL	100.00%		SPAIN	SPAIN
	INDUSTRIELLE DESMARQUOY SNC	100.00%		FRANCE	FRANCE
	JEHIER S.A.S.	99.89%		FRANCE	FRANCE
	JIANGSU BOSTIK ADHESIVE CO	100.00%		CHINA	CHINA
	JPR S.A.S.	100.00%		FRANCE	FRANCE
	KEUMAH FLOW CO LTD	100.00%		REPUBLIC OF KOREA	REPUBLIC OF KOREA
	KEUMHAN CO LTD	100.00%		REPUBLIC OF KOREA	REPUBLIC OF KOREA
	KEUMHAN VIETNAM CO., LIMITED	100.00%		VIETNAM	VIETNAM
	KTN KUNSTSTOFFTECHNIK NOBITZ GMBH	100.00%		GERMANY	GERMANY
	LA PORTE PIPELINE COMPANY, L.P.	50.00%	E	UNITED STATES	UNITED STATES
	LA PORTE PIPELINE GP, L.L.C.	50.00%	E	UNITED STATES	UNITED STATES
	LAFFAN REFINERY COMPANY LIMITED	10.00%	E	QATAR	QATAR
	LE JOINT FRANCAIS SNC	100.00%		FRANCE	FRANCE
	LEGACY SITE SERVICES LLC	100.00%		UNITED STATES	UNITED STATES
	LES STRATIFIES S.A.S.	100.00%		FRANCE	FRANCE
	LJF(UK) LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	LONE WOLF LAND CO.	100.00%		UNITED STATES	UNITED STATES
	LSS FUNDING INC.	100.00%		UNITED STATES	UNITED STATES
	MACHEN LAND LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	MAPA SPONTEX INC	100.00%		UNITED STATES	UNITED STATES
	MEM BAUCHEMIE GMBH	100.00%		GERMANY	GERMANY
	MYDRIN SRL	100.00%		ITALY	ITALY
	NAPHTACHIMIE	50.00%		FRANCE	FRANCE
	OLUTEX OBERLAUSITZER	100.00%		GERMANY	GERMANY
	LUFTFAHRTTEXTILIEN GMBH				
	PAMARGAN (MALTA) PRODUCTS LIMITED	100.00%		MALTA	MALTA

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PAMARGAN PRODUCTS LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
PAULSTRA SILENTBLOC S.A.	100.00%		BELGIUM	BELGIUM
PAULSTRA SNC	100.00%		FRANCE	FRANCE
PT BOSTIK INDONESIA	100.00%		INDONESIA	INDONESIA
QATAR PETROCHEMICAL COMPANY Q.S.C. (QAPCO)	20.00%	E	QATAR	QATAR
QATOFIN COMPANY LIMITED	49.09%	E	QATAR	QATAR
RESILIUM	100.00%		BELGIUM	BELGIUM
RETIA	100.00%		FRANCE	FRANCE
RETIA USA LLC	100.00%		UNITED STATES	UNITED STATES
SAMSUNG TOTAL PETROCHEMICALS CO. LTD	50.00%	E	REPUBLIC OF KOREA	REPUBLIC OF KOREA
SAN JACINTO RAIL LIMITED	17.00%	E	UNITED STATES	UNITED STATES

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	SAUDI ARAMCO TOTAL REFINING AND PETROCHEMICAL COMPANY	37.50%	E	SAUDI ARABIA	SAUDI ARABIA
	SIGMAKALON GROUP B.V.	100.00%		NETHERLANDS	NETHERLANDS
	SOCAP INTERNATIONAL LTD	100.00%		BERMUDA	BERMUDA
	SOCIETE MAROCAINE DES COLLES	97.01%		MOROCCO	MOROCCO
	SOVEREIGN CHEMICALS LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	STARQUARTZ INDUSTRIES, INC.	100.00%		UNITED STATES	UNITED STATES
	STILLMAN SEAL CORPORATION	100.00%		UNITED STATES	UNITED STATES
	STOP-CHOC (UK) LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TECHLAM SAS	100.00%		FRANCE	FRANCE
	TEKBAU YAPI MALZEMELERI	100.00%		TURKEY	TURKEY
	MADENCILIK SANAYI AS				
	TOTAL ACTIVITES MARITIMES	100.00%		FRANCE	FRANCE
	TOTAL AUSTRALIA LIMITED	100.00%		AUSTRALIA	AUSTRALIA
	TOTAL DEUTSCHLAND GMBH*	100.00%		GERMANY	GERMANY
	TOTAL DOWNSTREAM UK PLC	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL EUROPEAN TRADING	100.00%		FRANCE	FRANCE
	TOTAL INTERNATIONAL LIMITED TOTINTER	100.00%		BERMUDA	BERMUDA
	TOTAL LAFFAN REFINERY	100.00%		FRANCE	FRANCE
	TOTAL LAFFAN REFINERY II B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL LINDSEY OIL REFINERY LTD	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL OIL & GAS AUSTRALIA PTY LTD	100.00%		AUSTRALIA	AUSTRALIA
	TOTAL OLEFINS ANTWERP	100.00%		BELGIUM	BELGIUM
	TOTAL OPSLAG EN PIJPLEIDING NEDERLAND NV	55.00%		NETHERLANDS	NETHERLANDS
	TOTAL PAR LLC	100.00%		UNITED STATES	UNITED STATES
	TOTAL PETROCHEMICALS & REFINING USA INC*	100.00%		UNITED STATES	UNITED STATES
	TOTAL PETROCHEMICALS & REFINING SA/NV*	100.00%		BELGIUM	BELGIUM
	TOTAL PETROCHEMICALS (CHINA) TRADING CO LTD	100.00%		CHINA	CHINA
	TOTAL PETROCHEMICALS (FOSHAN) LTD	100.00%		CHINA	CHINA
	TOTAL PETROCHEMICALS (HONG KONG) LTD	100.00%		HONG KONG	HONG KONG
	TOTAL PETROCHEMICALS (NINGBO) LTD	100.00%		CHINA	CHINA
	TOTAL PETROCHEMICALS DEVELOPMENT FELUY	100.00%		BELGIUM	BELGIUM
	TOTAL PETROCHEMICALS ECAUSSINNES	100.00%		BELGIUM	BELGIUM
	TOTAL PETROCHEMICALS FELUY	100.00%		BELGIUM	BELGIUM
	TOTAL PETROCHEMICALS FRANCE	100.00%		FRANCE	FRANCE
	TOTAL PETROCHEMICALS IBERICA	100.00%		SPAIN	SPAIN
	TOTAL PETROCHEMICALS PIPELINE USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL PETROCHEMICALS UK LTD	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL POLYMERS ANTWERP	100.00%		BELGIUM	BELGIUM
	TOTAL RAFFINADERIJ ANTWERPEN NV	100.00%		BELGIUM	BELGIUM
	TOTAL RAFFINAGE CHIMIE	100.00%		FRANCE	FRANCE
	TOTAL RAFFINAGE FRANCE	100.00%		FRANCE	FRANCE
	TOTAL RAFFINERIE MITTELDEUTSCHLAND GMBH	100.00%		GERMANY	GERMANY
	TOTAL REFINING & CHEMICALS SAUDI ARABIA S.A.S.	100.00%		FRANCE	FRANCE
	TOTAL RESEARCH & TECHNOLOGY FELUY	100.00%		BELGIUM	BELGIUM
	TOTAL SPLITTER USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL TRADING AND MARKETING CANADA LP	100.00%		CANADA	CANADA
	TOTAL TRADING ASIA PTE LTD	100.00%		SINGAPORE	SINGAPORE
	TOTAL TRADING CANADA LIMITED	100.00%		CANADA	CANADA
	TOTAL TRADING PRODUCTS S.A.	100.00%		SWITZERLAND	SWITZERLAND
	TOTSA TOTAL OIL TRADING S.A.	100.00%		SWITZERLAND	SWITZERLAND

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	TRANSALPES SNC	67.00%	FRANCE	FRANCE
	TRANS-ETHYLENE	99.98%	FRANCE	FRANCE
	UAB ATOTECH-CHEMETA	100.00%	LITHUANIA	LITHUANIA
	USINA FORTALEZA INDUSTRIA E COMERCIO DE MASSA FINA LTDA	100.00%	BRAZIL	BRAZIL
	VIBRACHOC SAU	100.00%	SPAIN	SPAIN
	ZEELAND REFINERY N.V.	55.00%	NETHERLANDS	NETHERLANDS
Marketing & Services	AETOLIA ENERGY SITE ANONYMI ENERGEIAKI ETAIREIA (DISTINCTIVE TIEL AETOLIA ENERGEIAKI ETAIREIA)	41.84%	GREECE	GREECE
	AETOLIA ENERGY SITE MALTA LIMITED	59.77%	MALTA	MALTA

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	AIR TOTAL (SUISSE) S.A.	100.00%		SWITZERLAND	SWITZERLAND
	AIR TOTAL INTERNATIONAL S.A.	100.00%		SWITZERLAND	SWITZERLAND
	ALEXSUN 1 MALTA LIMITED	59.77%		MALTA	MALTA
	ALEXSUN2 MALTA LIMITED	59.77%		MALTA	MALTA
	ALMYROS ENERGY SOLUTION	41.84%		GREECE	GREECE
	ANONYMI ENERGEIAKI ETAIREIA (DISTINCTIVE TITLE ALMYROS ENERGEIAKI A.E.)				
	ALMYROS ENERGY SOLUTION MALTA LIMITED	59.77%		MALTA	MALTA
	ALVEA	100.00%		FRANCE	FRANCE
	AMYRIS INC.	17.23%	E	UNITED STATES	UNITED STATES
	ANTILLES GAZ	100.00%		FRANCE	FRANCE
	ARDECHES SOLAIRE DRAGA 1	59.77%		FRANCE	FRANCE
	ARISTEA	51.00%	E	BELGIUM	BELGIUM
	ARTECO	49.99%	E	BELGIUM	BELGIUM
	AS 24	100.00%		FRANCE	FRANCE
	AS 24 BELGIE NV	100.00%		BELGIUM	BELGIUM
	AS 24 ESPANOLA SA	100.00%		SPAIN	SPAIN
	AS 24 FUEL CARD LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	AS 24 POLSKA SP ZOO	100.00%		POLAND	POLAND
	AS 24 TANKSERVICE GMBH	100.00%		GERMANY	GERMANY
	AUO SUNPOWER SDN. BHD.	29.88%	E	MALAYSIA	MALAYSIA
	BADENHORST PV 2 EQUITY CO LLC	59.77%		UNITED STATES	UNITED STATES
	BADENHORST PV 2 HOLD CO LLC	59.77%		UNITED STATES	UNITED STATES
	BEIT HAGEDI RENEWABLE ENERGIES LTD	59.77%		ISRAEL	ISRAEL
	BERTOPHASE (PTY) LTD	59.77%		SOUTH AFRICA	SOUTH AFRICA
	BNB BLOOMFIELD SOLAR LLC	59.77%		UNITED STATES	UNITED STATES
	CALDEO	100.00%		FRANCE	FRANCE
	CHARENTE MARITIME				
	SOLAIRE ST LEGER 1	59.77%		FRANCE	FRANCE
	CHARVET LA MURE BIANCO	100.00%		FRANCE	FRANCE
	CLEAN ACQUISITION CO., LLC	59.77%		UNITED STATES	UNITED STATES
	COMPAGNIE PETROLIERE DE L OUEST-CPO	100.00%		FRANCE	FRANCE
	CORONA SANDS, LLC	29.88%		UNITED STATES	UNITED STATES
	CPE ENERGIES	100.00%		FRANCE	FRANCE
	CRISTAL MARKETING EGYPT	80.78%		EGYPT	EGYPT
	DCA-MORY-SHIP	100.00%		FRANCE	FRANCE
	DEAAR PV EQUITY CO LLC	59.77%		UNITED STATES	UNITED STATES
	DEAAR PV HOLD CO LLC	59.77%		UNITED STATES	UNITED STATES
	DIAMOND ENERGY PTY LTD	14.94%	E	AUSTRALIA	AUSTRALIA
	DRAGONFLY SYSTEMS, INC	59.77%		UNITED STATES	UNITED STATES
	EAU CHAUDE REUNION (ECR)	50.00%	E	FRANCE	FRANCE
	EGEDIS	100.00%		FRANCE	FRANCE
	ELF LUBRICANTS (GUANGZHOU) CO LTD	58.00%		CHINA	CHINA
	ELF OIL UK AVIATION LTD	100.00%		UNITED KINGDOM	UNITED KINGDOM
	ELF OIL UK PROPERTIES LTD	100.00%		UNITED KINGDOM	UNITED KINGDOM
	FILIPINAS THIRD MILLENIUM REALTY	64.00%		PHILIPPINES	PHILIPPINES
	FIRST PHILEC SOLAR CORPORATION	8.97%	E	PHILIPPINES	PHILIPPINES
	FIWADO B.V.	100.00%		NETHERLANDS	NETHERLANDS
	GILAT RENEWABLE ENERGIES LTD	59.77%		ISRAEL	ISRAEL
	GREENBOTICS, INC.	59.77%		UNITED STATES	UNITED STATES
	HEMATHIA SUCCESSFUL ANONYMI ENERGEIAKI ETAIREIA (DISTINCTIVE TITLE HEMATHIA SUCCESSFUL A.E.)	41.84%		GREECE	GREECE
	HEMETHIA SUCCESSFUL LIMITED	59.77%		MALTA	MALTA
	HIGH PLAINS RANCH I, LLC	59.77%		UNITED STATES	UNITED STATES
	HUAXIA CPV (INNER MONGOLIA) POWER CO., LTD	14.94%	E	CHINA	CHINA
	IMMO ENERGIE	59.77%		FRANCE	FRANCE
	INSTITUT PHOTOVOLTAIQUE D ILE DE FRANCE (IPVF)	43.00%		FRANCE	FRANCE

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JDA OVERSEAS HOLDINGS, LLC	59.77%	UNITED STATES	UNITED STATES
KLIPGATS PV 3 EQUITY CO LLC	59.77%	UNITED STATES	UNITED STATES
KLIPGATS PV 3 HOLD CO LLC	59.77%	UNITED STATES	UNITED STATES
KLIPGATS PV 7 EQUITY CO LLC	59.77%	UNITED STATES	UNITED STATES
KLIPGATS PV 7 HOLD CO LLC	59.77%	UNITED STATES	UNITED STATES
KOZANI ENERGY ANONYMI	59.77%	GREECE	GREECE
ENERGEIAKI ETAIREIA (DISTINCTIVE TITLE KOZANI ENERGY S.A.)			
KOZANI ENERGY MALTA LIMITED	59.77%	MALTA	MALTA
LA DEFENSE FILIPINAS HOLDING CORPORATION	40.00%	PHILIPPINES	PHILIPPINES

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	LEMOORE STRATFORD LAND HOLDINGS IV, LLC	59.77%		UNITED STATES	UNITED STATES
	LUIS SOLAR, LLC	59.77%		UNITED STATES	UNITED STATES
	MARIVELES JOINT VENTURE CORP	49.98%		PHILIPPINES	PHILIPPINES
	MICHEL MINERALÖLHANDEL GMBH	100.00%		GERMANY	GERMANY
	NATIONAL PETROLEUM REFINERS OF SOUTH AFRICA (PTY) LTD	18.22%	E	SOUTH AFRICA	SOUTH AFRICA
	NEVATIM GREEN ENERGIES LTD	59.77%		ISRAEL	ISRAEL
	PARREY, LLC	59.77%		UNITED STATES	UNITED STATES
	PATISH (WEST) GREEN ENERGIES LTD	59.77%		ISRAEL	ISRAEL
	PENINSULA LAND BAY REALTY CORPORATION	31.94%		PHILIPPINES	PHILIPPINES
	PHOTOVOTAICA PARKA VEROIA ANONYMI ETAIREIA	59.77%		GREECE	GREECE
	PLUTO ACQUISITION COMPANY LLC	59.77%		UNITED STATES	UNITED STATES
	PRODUITS PETROLIERS STELA	99.99%		FRANCE	FRANCE
	PV SALVADOR SPA	20.00%	E	CHILE	CHILE
	QUIMICA VASCA SA UNIPERSONAL	100.00%		SPAIN	SPAIN
	RAY OF SUCCESS ANONYMI ENERGEIAKI ETAIREIA (DISTINCTIVE TITLE RAY OF SUCCESS A.E.)	41.84%		GREECE	GREECE
	RAY OF SUCCESS MALTA LIMITED	59.77%		MALTA	MALTA
	ROTEM SUNPOWER LTD	59.77%		ISRAEL	ISRAEL
	SERVAUTO NEDERLAND B.V.	100.00%		NETHERLANDS	NETHERLANDS
	SGULA (WEST) GREEN ENERGIES LTD	59.77%		ISRAEL	ISRAEL
	SHAMS POWER COMPANY PJSC	20.00%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	SOCIETE ANONYME DE LA RAFFINERIE DES ANTILLES	50.00%	E	FRANCE	FRANCE
	SOCIETE DES TRANSPORTS PETROLIERS PAR PIPELINE	35.50%	E	FRANCE	FRANCE
	SOCIETE D EXPLOITATION DE CENTRALES PHOTOVOLTAIQUES 1	29.94%		FRANCE	FRANCE
	SOCIETE MAHORAISE DE STOCKAGE DE PRODUITS PETROLIERS	100.00%		FRANCE	FRANCE
	SOCIETE POUR L EXPLOITATION DE L USINE DE ROUEN	98.98%		FRANCE	FRANCE
	SOCIETE URBAINE DES PETROLES	100.00%		FRANCE	FRANCE
	S-OIL TOTAL LUBRICANTS CO LTD	50.00%	E	REPUBLIC OF KOREA	REPUBLIC OF KOREA
	SOLAR ASSURANCE CAPITAL PTY LTD	59.77%		AUSTRALIA	AUSTRALIA
	SOLAR BEACON CALIFORNIA I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR GREENHOUSE I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR ARIZONA HMR-I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR ARIZONA I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR ARIZONA II, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR ARIZONA III, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR ARIZONA IV, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR ARIZONA V, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR ARIZONA VI, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR ARIZONA VII, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR BLYTHE MESA I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA IV, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA VII, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XII, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XIII PARENT, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XIII, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XIX, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XLIX, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XV PARENT, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XV, LLC	59.77%		UNITED STATES	UNITED STATES

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SOLAR STAR CALIFORNIA XVI, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XVII, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XVIII, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XX, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXI, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXII, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXIII, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXIV, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXIX, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXV, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXVI, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXVII, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXVIII, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXX, LLC	59.77%	UNITED STATES	UNITED STATES
SOLAR STAR CALIFORNIA XXXI, LLC	59.77%	UNITED STATES	UNITED STATES

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	SOLAR STAR CALIFORNIA XXXII, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XXXIII, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XXXIV, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XXXIX, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XXXV, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XXXVI, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XXXVII, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CALIFORNIA XXXVIII, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR COLORADO I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR COLORADO II, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR COLORADO III, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR CONNECTICUT I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR HAWAII I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR HAWAII II, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR HAWAII III, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR HAWAII IV, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR HI AIR, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR HOLDING, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR NEW JERSEY III, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR NEW JERSEY IV, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR NEW YORK I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR OCEANSIDE, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR PUERTO RICO I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR RANCHO CWD I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR TEXAS I, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR TEXAS II, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR TEXAS III, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR TEXAS IV, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR XI, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLAR STAR YC, LLC	59.77%		UNITED STATES	UNITED STATES
	SOLARBRIDGE TECHNOLOGIES, INC.	59.77%		UNITED STATES	UNITED STATES
	SP CORDOBESA MALTA LIMITED	59.77%		MALTA	MALTA
	SP QUINTANA MALTA LIMITED	59.77%		MALTA	MALTA
	SPML LAND, INC.	59.77%		PHILIPPINES	PHILIPPINES
	SPWR ENERGIAS RENOVAVEIS UNIPessoal, LDA.	59.77%		PORTUGAL	PORTUGAL
	SPWR EW 2013-1, LLC	0.60%		UNITED STATES	UNITED STATES
	SPWR MS 2013-1, LLC	29.88%		UNITED STATES	UNITED STATES
	SPWR PP 2014-1, LLC	59.77%		UNITED STATES	UNITED STATES
	SPWR SOLAR ENERGEIAKI HELLAS	59.77%		GREECE	GREECE
	SINGLE MEMBER EPE				
	SPWR USB 2013-1, LLC	0.60%		UNITED STATES	UNITED STATES
	SPWR USB 2013-2, LLC	0.60%		UNITED STATES	UNITED STATES
	SPWR USB 2013-3, LLC	0.60%		UNITED STATES	UNITED STATES
	SSSA, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER ACCESS I, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER ASSETCO, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER BEACON 1 HOLDINGS LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER BERMUDA HOLDINGS	59.77%		BERMUDA	BERMUDA
	SUNPOWER CAPITAL AUSTRALIA PTY LTD	59.77%		AUSTRALIA	AUSTRALIA
	SUNPOWER CAPITAL SERVICES, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER CAPITAL, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER COMMERCIAL FINANCE I, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER COPPA HOLDINGS LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER CORP ISRAEL LTD	59.77%		ISRAEL	ISRAEL
	SUNPOWER CORPORATION	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER CORPORATION (SWITZERLAND) SARL	59.77%		SWITZERLAND	SWITZERLAND
	SUNPOWER CORPORATION AUSTRALIA PTY LTD	59.77%		AUSTRALIA	AUSTRALIA
	SUNPOWER CORPORATION LIMITED	59.77%		HONG KONG	HONG KONG

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SUNPOWER CORPORATION MALTA HOLDINGS LIMITED	59.77%	MALTA	MALTA
SUNPOWER CORPORATION MEXICO, S. DE R.L. DE C.V.	59.77%	MEXICO	MEXICO
SUNPOWER CORPORATION SOUTHERN AFRICA (PTY) LTD	59.77%	SOUTH AFRICA	SOUTH AFRICA
SUNPOWER CORPORATION SPA	59.77%	CHILE	CHILE
SUNPOWER CORPORATION UK LIMITED	59.77%	UNITED KINGDOM	UNITED KINGDOM
SUNPOWER CORPORATION, SYSTEMS	59.77%	UNITED STATES	UNITED STATES
SUNPOWER DEVCO, LLC	59.77%	UNITED STATES	UNITED STATES
SUNPOWER DEVELOPMENT COMPANY	59.77%	UNITED STATES	UNITED STATES
SUNPOWER ENERGY SYSTEMS (PTY) LTD	59.77%	SOUTH AFRICA	SOUTH AFRICA

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	SUNPOWER ENERGY SYSTEMS CANADA CORPORATION	59.77%		CANADA	CANADA
	SUNPOWER ENERGY SYSTEMS KOREA	59.77%		REPUBLIC OF KOREA	REPUBLIC OF KOREA
	SUNPOWER ENERGY SYSTEMS SINGAPORE PTE LTD	59.77%		SINGAPORE	SINGAPORE
	SUNPOWER ENERGY SYSTEMS SOUTHERN AFRICA (PTY) LTD	59.77%		SOUTH AFRICA	SOUTH AFRICA
	SUNPOWER ENERGY SYSTEMS SPAIN, SL	59.77%		SPAIN	SPAIN
	SUNPOWER FOUNDATION	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER FRANCE S.A.S.	59.77%		FRANCE	FRANCE
	SUNPOWER GMBH	59.77%		GERMANY	GERMANY
	SUNPOWER HOLDCO, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER ITALIA S.R.L.	59.77%		ITALY	ITALY
	SUNPOWER JAPAN KK	59.77%		JAPAN	JAPAN
	SUNPOWER MALTA LIMITED	59.77%		MALTA	MALTA
	SUNPOWER MANUFACTURING (PTY) LTD	59.77%		SOUTH AFRICA	SOUTH AFRICA
	SUNPOWER MANUFACTURING DE VERNEJOUL	59.77%		FRANCE	FRANCE
	SUNPOWER NORTH AMERICA, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER PHILIPPINES LTD. REGIONAL OPERATING HEADQUARTERS	59.77%		CAYMAN ISLANDS	PHILIPPINES
	SUNPOWER PHILIPPINES MANUFACTURING LTD.	59.77%		CAYMAN ISLANDS	PHILIPPINES
	SUNPOWER RESIDENTIAL I, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOFTWARE I, INC.	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLAR ENERGY TECHNOLOGY (TIANJIN) CO., LTD	59.77%		CHINA	CHINA
	SUNPOWER SOLAR INDIA PRIVATE LIMITED	59.77%		INDIA	INDIA
	SUNPOWER SOLAR MALAYSIA SDN. BHD.	59.77%		MALAYSIA	MALAYSIA
	SUNPOWER SOLAR MONITORING, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM I, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM II, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM III, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM IV, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM V, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM VI, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM VII, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM VIII, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM IX, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SOLARPROGRAM X, LLC	59.77%		UNITED STATES	UNITED STATES
	SUNPOWER SYSTEMS BELGIUM SPRL	59.77%		BELGIUM	BELGIUM
	SUNPOWER SYSTEMS HISPANIOLA SARL	59.77%		DOMINICAN REPUBLIC	DOMINICAN REPUBLIC
	SUNPOWER SYSTEMS MEXICO S. DE R.L. DE C.V.	59.77%		MEXICO	MEXICO
	SUNPOWER SYSTEMS SARL	59.77%		SWITZERLAND	SWITZERLAND
	SUNPOWER TECHNOLOGY LTD.	59.77%		CAYMAN ISLANDS	CAYMAN ISLANDS
	SUNRAY ITALY S.R.L.	59.77%		ITALY	ITALY
	SUNRENTE INVESTISSEMENT FRANCE S.A.S.	59.77%		FRANCE	FRANCE
	SUNRISE 1, LLC	33.78%		UNITED STATES	UNITED STATES
	SUNZIL	50.00%	E	FRANCE	FRANCE
	SUNZIL CARAIBES	50.00%	E	FRANCE	FRANCE
	SUNZIL MAYOTTE S.A.S.	50.00%	E	FRANCE	FRANCE
	SUNZIL OCEAN INDIEN	50.00%	E	FRANCE	FRANCE
	SUNZIL PACIFIC	50.00%	E	FRANCE	FRANCE
	SUNZIL POLYNESIE	50.00%	E	FRANCE	FRANCE
	SUNZIL POLYNESIE SERVICES	50.00%	E	FRANCE	FRANCE
	SUNZIL SERVICES CARAIBES	50.00%	E	FRANCE	FRANCE
	SUNZIL SERVICES OCEAN INDIEN	50.00%	E	FRANCE	FRANCE
	SWINGLETREE OPERATIONS, LLC	59.77%		UNITED STATES	UNITED STATES
	TEMASOL	59.77%		MOROCCO	MOROCCO

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TENESOL DE MEXICO SA DE CV	59.77%	MEXICO	MEXICO
TENESOL ENERGIE MAROC	59.77%	MOROCCO	MOROCCO
TENESOL S.A.S.	59.77%	FRANCE	FRANCE
TENESOL SPV1	59.77%	FRANCE	FRANCE
TENESOL SPV2	59.77%	FRANCE	FRANCE
TENESOL TECHNOLOGIES	59.77%	FRANCE	FRANCE
TENESOL VDP	59.77%	FRANCE	FRANCE
TENESOL VENEZUELA	59.77%	VENEZUELA	VENEZUELA
TILT SOLAR, LLC	59.77%	UNITED STATES	UNITED STATES
TORIMODE (PTY) LTD	59.77%	SOUTH AFRICA	SOUTH AFRICA

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	TORIPROX (PTY) LTD	59.77%		SOUTH AFRICA	SOUTH AFRICA
	TORISOL (PTY) LTD	59.77%		SOUTH AFRICA	SOUTH AFRICA
	TOTAL (AFRICA) LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL (FIJI) LIMITED	100.00%		FIJI	FIJI
	TOTAL (TIANJIN) MANUFACTURING CO., LTD.	100.00%		CHINA	CHINA
	TOTAL ABENGOA SOLAR EMIRATES INVESTMENT COMPANY B.V.	50.00%	E	NETHERLANDS	UNITED ARAB EMIRATES
	TOTAL ADDITIFS ET CARBURANTS SPECIAUX	100.00%		FRANCE	FRANCE
	TOTAL AFRICA S.A.	100.00%		FRANCE	FRANCE
	TOTAL AVIATION AND EXPORT LTD	100.00%		ZAMBIA	ZAMBIA
	TOTAL BELGIUM	100.00%		BELGIUM	BELGIUM
	TOTAL BITUMEN DEUTSCHLAND GMBH	100.00%		GERMANY	GERMANY
	TOTAL BITUMEN UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL BOTSWANA (PTY) LTD	50.10%		BOTSWANA	BOTSWANA
	TOTAL BURKINA	100.00%		BURKINA FASO	BURKINA FASO
	TOTAL CAMBODGE	100.00%		CAMBODIA	CAMBODIA
	TOTAL CAMEROUN	67.01%		CAMEROON	CAMEROON
	TOTAL CARAIBES	100.00%		FRANCE	FRANCE
	TOTAL CESKA REPUBLIKA S.R.O	100.00%		CZECH REPUBLIC	CZECH REPUBLIC
	TOTAL CHINA INVESTMENT CO LTD	100.00%		CHINA	CHINA
	TOTAL CONGO	99.70%		CONGO	CONGO
	TOTAL CORSE	100.00%		FRANCE	FRANCE
	TOTAL COTE D IVOIRE	73.01%		IVORY COAST	IVORY COAST
	TOTAL DENMARK A/S	100.00%		DENMARK	DENMARK
	TOTAL DEUTSCHLAND GMBH*	100.00%		GERMANY	GERMANY
	TOTAL EGYPT	80.78%		EGYPT	EGYPT
	TOTAL ENERGIE DEVELOPPEMENT	100.00%		FRANCE	FRANCE
	TOTAL ENERGIE DO BRASIL	59.77%		BRAZIL	BRAZIL
	TOTAL ENERGIE SOLAIRE CONCENTREE	100.00%		FRANCE	FRANCE
	TOTAL ENERGIES NOUVELLES	100.00%		FRANCE	FRANCE
	ACTIVITES USA				
	TOTAL ESPANA SA	100.00%		SPAIN	SPAIN
	TOTAL ESPECIALIDADES ARGENTINA	100.00%		ARGENTINA	ARGENTINA
	TOTAL ETHIOPIA	100.00%		ETHIOPIA	ETHIOPIA
	TOTAL FLUIDES	100.00%		FRANCE	FRANCE
	TOTAL FREEPORT CORPORATION	100.00%		PHILIPPINES	PHILIPPINES
	TOTAL FUELS WUHAN COMPANY LIMITED	100.00%		CHINA	CHINA
	TOTAL GLASS LUBRICANTS EUROPE GMBH	100.00%		GERMANY	GERMANY
	TOTAL GUADELOUPE	100.00%		FRANCE	FRANCE
	TOTAL GUINEA ECUATORIAL	80.00%		EQUATORIAL GUINEA	EQUATORIAL GUINEA
	TOTAL GUINEE	100.00%		GUINEA	GUINEA
	TOTAL HOLDING ASIE	100.00%		FRANCE	FRANCE
	TOTAL HUNGARIA KFT	100.00%		HUNGARY	HUNGARY
	TOTAL JAMAICA LTD	100.00%		JAMAICA	JAMAICA
	TOTAL JORDAN	100.00%		JORDAN	JORDAN
	TOTAL KENYA	93.96%		KENYA	KENYA
	TOTAL LESOTHO (PTY) LTD	50.10%		LESOTHO	LESOTHO
	TOTAL LIBAN	100.00%		LEBANON	LEBANON
	TOTAL LIBERIA INC	100.00%		LIBERIA	LIBERIA
	TOTAL LUBRICANTS (CHINA) CO LTD	86.49%		CHINA	CHINA
	TOTAL LUBRICANTS TAIWAN, LTD.	63.00%		TAIWAN	TAIWAN
	TOTAL LUBRIFIANTS	99.98%		FRANCE	FRANCE
	TOTAL LUBRIFIANTS SERVICES AUTOMOBILE	99.98%		FRANCE	FRANCE
	TOTAL LUXEMBOURG S.A.	100.00%		LUXEMBOURG	LUXEMBOURG
	TOTAL MADAGASIKARA S.A.	79.44%		MADAGASCAR	MADAGASCAR
	TOTAL MALI	100.00%		MALI	MALI
	TOTAL MARINE FUELS	100.00%		SINGAPORE	SINGAPORE

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TOTAL MARKETING EGYPT	80.78%	EGYPT	EGYPT
TOTAL MARKETING GABON	90.00%	GABON	GABON
TOTAL MARKETING MIDDLE EAST FREE ZONE	100.00%	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
TOTAL MARKETING SERVICES	100.00%	FRANCE	FRANCE
TOTAL MARKETING TCHAD	100.00%	CHAD	CHAD
TOTAL MARKETING UGANDA	100.00%	UGANDA	UGANDA
TOTAL MAROC	70.00%	MOROCCO	MOROCCO
TOTAL MAURITIUS	55.00%	MAURITIUS	MAURITIUS
TOTAL MAYOTTE	100.00%	FRANCE	FRANCE
TOTAL MEXICO SA DE CV	100.00%	MEXICO	MEXICO
TOTAL MINERALOEL UND CHEMIE GMBH	100.00%	GERMANY	GERMANY

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	TOTAL MINERALÖL GMBH	100.00%		GERMANY	GERMANY
	TOTAL MOZAMBIQUE	100.00%		MOZAMBIQUE	MOZAMBIQUE
	TOTAL NAMIBIA (PTY) LTD	50.10%		NAMIBIA	NAMIBIA
	TOTAL NEDERLAND NV	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL NEW ENERGIES LTD	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL NEW ENERGIES USA, INC.	100.00%		UNITED STATES	UNITED STATES
	TOTAL NEW ENERGIES VENTURES USA, INC.	100.00%		UNITED STATES	UNITED STATES
	TOTAL NIGER SA	100.00%		NIGER	NIGER
	TOTAL NIGERIA PLC	61.72%		NIGERIA	NIGERIA
	TOTAL NUEVAS ENERGIAS CHILE SPA	100.00%		CHILE	CHILE
	TOTAL OIL ASIA-PACIFIC PTE LTD	100.00%		SINGAPORE	SINGAPORE
	TOTAL OIL INDIA PVT LTD	100.00%		INDIA	INDIA
	TOTAL OIL PAKISTAN (PRIVATE) LIMITED	100.00%		PAKISTAN	PAKISTAN
	TOTAL OIL TURKIYE AS	100.00%		TURKEY	TURKEY
	TOTAL OUTRE MER	100.00%		FRANCE	FRANCE
	TOTAL PACIFIQUE	100.00%		FRANCE	FRANCE
	TOTAL PARCO PAKISTAN LIMITED	60.00%		PAKISTAN	PAKISTAN
	TOTAL PETROLEUM (SHANGHAI) COMPANY LIMITED	100.00%		CHINA	CHINA
	TOTAL PETROLEUM GHANA LIMITED	76.74%		GHANA	GHANA
	TOTAL PETROLEUM GUANGZHOU CO LTD	100.00%		CHINA	CHINA
	TOTAL PETROLEUM PUERTO RICO CORP	100.00%		PUERTO RICO	PUERTO RICO
	TOTAL PHILIPPINES CORPORATION	100.00%		PHILIPPINES	PHILIPPINES
	TOTAL POLSKA	100.00%		POLAND	POLAND
	TOTAL POLYNESIE	99.54%		FRANCE	FRANCE
	TOTAL RDC	60.00%		DEMOCRATIC REPUBLIC OF CONGO	DEMOCRATIC REPUBLIC OF CONGO
	TOTAL REUNION	100.00%		FRANCE	FRANCE
	TOTAL SENEGAL	69.14%		SENEGAL	SENEGAL
	TOTAL SINOCHAM FUELS COMPANY LTD	49.00%	E	CHINA	CHINA
	TOTAL SINOCHAM OIL COMPANY LIMITED	49.00%	E	CHINA	CHINA
	TOTAL SOUTH AFRICA (PTY) LTD	50.10%		SOUTH AFRICA	SOUTH AFRICA
	TOTAL SPECIALTIES USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL SUPPLY MS S.A.	100.00%		SWITZERLAND	SWITZERLAND
	TOTAL SWAZILAND (PTY) LTD	50.10%		SWAZILAND	SWAZILAND
	TOTAL TOGO	76.72%		TOGO	TOGO
	TOTAL TUNISIE	100.00%		TUNISIA	TUNISIA
	TOTAL UAE LLC	49.00%		UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	TOTAL UGANDA LIMITED	100.00%		UGANDA	UGANDA
	TOTAL UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL UNION OCEANE	100.00%		FRANCE	FRANCE
	TOTAL VOSTOK	100.00%		RUSSIAN FEDERATION	RUSSIAN FEDERATION
	TOTAL ZAMBIA	100.00%		ZAMBIA	ZAMBIA
	TOTALERG SPA	49.00%	E	ITALY	ITALY
	TOTALGAZ	100.00%		FRANCE	FRANCE
	TYCZKA TOTALGAZ GMBH	50.00%	E	GERMANY	GERMANY
	URIM GREEN ENERGIES LTD	59.77%		ISRAEL	ISRAEL
	WHIPPLETREE SOLAR LLC	59.77%		UNITED STATES	UNITED STATES
	WHIRLWIND SOLAR STAR, LLC	59.77%		UNITED STATES	UNITED STATES
	ZRUHA GREEN ENERGIES LTD	59.77%		ISRAEL	ISRAEL
Corporate	ELF AQUITAINE	100.00%		FRANCE	FRANCE
	ELF AQUITAINE FERTILISANTS	100.00%		FRANCE	FRANCE
	ELF AQUITAINE INC.	100.00%		UNITED STATES	UNITED STATES
	ELF FOREST PRODUCTS, LLC	100.00%		UNITED STATES	UNITED STATES
	ETMOFINA	100.00%		BELGIUM	BELGIUM
	FINANCIERE VALORGEST	100.00%		FRANCE	FRANCE

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FINGESTVAL	100.00%	FRANCE	FRANCE
OMNIUM REINSURANCE COMPANY SA	100.00%	SWITZERLAND	SWITZERLAND
PAN INSURANCE LIMITED	100.00%	IRELAND	IRELAND
SEPTENTRION PARTICIPATIONS	100.00%	FRANCE	FRANCE
SOCAP S.A.S.	100.00%	FRANCE	FRANCE
SOCIETE CIVILE IMMOBILIERE CB2	100.00%	FRANCE	FRANCE
SOFAX BANQUE	100.00%	FRANCE	FRANCE
SOGAPAR	100.00%	FRANCE	FRANCE
TOTAL OVERSEAS HOLDING (PTY) LTD	100.00%	SOUTH AFRICA	SOUTH AFRICA
TOTAL AFFILIATES CAPITAL USA INC	100.00%	UNITED STATES	UNITED STATES
TOTAL AMERICAN SERVICES INC	100.00%	UNITED STATES	UNITED STATES
TOTAL CAPITAL	100.00%	FRANCE	FRANCE
TOTAL CAPITAL CANADA LTD.	100.00%	CANADA	CANADA
TOTAL CAPITAL INTERNATIONAL	100.00%	FRANCE	FRANCE

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Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	TOTAL CORPORATE MANAGEMENT (BEIJING) COMPANY LIMITED	100.00%		CHINA	CHINA
	TOTAL DELAWARE INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL E&P HOLDINGS	100.00%		FRANCE	FRANCE
	TOTAL ENERGY VENTURES EUROPE	100.00%		FRANCE	FRANCE
	TOTAL ENERGY VENTURES INTERNATIONAL	100.00%		FRANCE	FRANCE
	TOTAL FINANCE	100.00%		FRANCE	FRANCE
	TOTAL FINANCE CORPORATE SERVICES LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL FINANCE GLOBAL SERVICES S.A.	100.00%		BELGIUM	BELGIUM
	TOTAL FINANCE INTERNATIONAL LTD	100.00%		BERMUDA	BERMUDA
	TOTAL FINANCE NEDERLAND B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL FINANCE USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL FUNDING NEDERLAND B.V.	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL GESTION FILIALES	100.00%		FRANCE	FRANCE
	TOTAL GESTION USA	100.00%		FRANCE	FRANCE
	TOTAL GLOBAL SERVICES	100.00%		FRANCE	FRANCE
	TOTAL GLOBAL SERVICES BELGIUM S.A.	99.80%		BELGIUM	BELGIUM
	TOTAL HOLDING ALLEMAGNE	100.00%		FRANCE	FRANCE
	TOTAL HOLDINGS EUROPE	100.00%		FRANCE	FRANCE
	TOTAL HOLDINGS UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL HOLDINGS USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL INTERNATIONAL NV	100.00%		NETHERLANDS	NETHERLANDS
	TOTAL NUCLEAIRE	100.00%		FRANCE	FRANCE
	TOTAL OPERATIONS CANADA LTD	100.00%		CANADA	CANADA
	TOTAL PARTICIPATIONS	100.00%		FRANCE	FRANCE
	TOTAL PETROCHEMICALS & REFINING USA INC*	100.00%		UNITED STATES	UNITED STATES
	TOTAL PETROCHEMICALS & REFINING SA/NV*	100.00%		BELGIUM	BELGIUM
	TOTAL PETROCHEMICALS SECURITY USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL RESOURCES (CANADA) LIMITED	100.00%		CANADA	CANADA
	TOTAL S.A.			FRANCE	FRANCE
	TOTAL TREASURY	100.00%		FRANCE	FRANCE
	TOTAL UK FINANCE LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM

\* Multi-segment entities

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**TOTAL**

**SUPPLEMENTAL OIL AND GAS INFORMATION (Unaudited)**

**1. Oil and gas information pursuant to FASB Accounting Standards Codification 932**

Proved reserves estimates are calculated according to the Securities and Exchange Commission (SEC) Rule 4-10 of Regulation S-X set forth in the Modernization of Oil and Gas Reporting release (SEC Release n° 33-8995) and the Financial Accounting Standard Board (FASB) Accounting Standards Update regarding Extractive Activities – Oil and Gas (ASC 932), which provide definitions and disclosure requirements.

**1.1. Assessment process for reserves**

The estimation of reserves is an ongoing process that is done within affiliates by experienced geoscientists, engineers and economists under the supervision of each affiliate's General Management. Staff involved in reserves evaluation are trained to follow SEC-compliant internal guidelines and policies regarding criteria that must be met before reserves can be considered as proved. All of the Group's proved reserves held in subsidiaries and equity affiliates are estimated within the affiliates of the Group, with the exception of the proved reserves held by the Russian equity affiliate OAO Novatek. The assessment of the net proved liquids and natural gas reserves of certain properties owned by OAO Novatek was completed as of December 31, 2014, in accordance with the standards applied by the Group, based on an independent third-party report of DeGolyer & MacNaughton. These independently assessed reserves account for 58% of OAO Novatek's net proved reserves and 61% of the total net proved reserves TOTAL held in Russia as of December 31, 2014.

The technical validation process relies on a Technical Reserves Committee that is responsible for approving proved reserves changes above a certain threshold and technical evaluations of reserves associated with an investment decision that requires approval from the Exploration & Production Executive Committee.

The Chairman of the Technical Reserves Committee is appointed by the Senior Management of Exploration & Production and its members represent expertise in reservoir engineering, production geology, production geophysics, drilling and development studies.

An internal control process related to reserves estimation is formalized and involves the following elements:

A central Reserve Entity whose responsibility is to consolidate, document and archive the Group's reserves; to ensure coherence of evaluations worldwide; to maintain the Corporate Reserves Guidelines Standards in line with SEC guidelines and policies; to deliver training on reserves evaluation and classification; and to conduct periodically in-depth technical review of reserves for each affiliate.

An annual review of affiliates' reserves conducted by an internal group of specialists selected for their expertise in geosciences and engineering or their knowledge of the affiliate. All members of this group, chaired by the Reserves Vice-President ( RVP ) of the Development division and composed of at least three Technical Reserves Committee members, are knowledgeable in the SEC guidelines for proved reserves evaluation. Their responsibility is to provide an independent review of reserves changes proposed by affiliates and ensure that reserves are estimated using appropriate standards and procedures.

At the end of the annual review carried out by the Development division, an SEC Reserves Committee chaired by the Exploration & Production Senior Vice President Corporate Affairs and comprised of the Development,

Exploration, Strategy and Legal Senior Vice Presidents, or their representatives, as well as the Chairman of the Technical Reserves Committee and the RVP of the Development division, approves the elements of the SEC reserve booking proposals concerning criteria that are not dependent upon reservoir and geosciences techniques.

The results of the annual review and the proposals for including revisions or additions of SEC Proved Reserves are presented to the Exploration & Production Executive Committee for approval before final validation by the Group Executive Management.

The reserves evaluation and control process is audited periodically by the Group's internal auditors who verify the effectiveness of the reserves evaluation process and control procedures.



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The RVP of the Development division is the technical person responsible for preparing the reserves estimates for the Group. Appointed by the President of Exploration & Production, the RVP supervises the Reserve Entity, chairs the annual review of reserves, and is a member of the Technical Reserves Committee and the SEC Reserves Committee. The current RVP has over thirty years of experience in the oil and gas industry. He previously held several management positions in the Group in reservoir engineering and geosciences, and has more than fifteen years of experience in the field of reserves evaluation and control process. He holds an engineering degree from *Institut National des Sciences Appliquées*, Lyon, France, and a petroleum engineering degree from *École Nationale Supérieure du Pétrole et des Moteurs* (IFP School), France. He is a member and a past Chairman of the Society of Petroleum Engineers Oil and Gas Reserves Committee and a member of the UNECE (United Nations Economic Commission for Europe) Expert Group on Resource Classification.

### 1.2. Proved developed reserves

As of December 31, 2014, proved developed reserves of oil and gas were 5,707 Mboe and represented 50% of the proved reserves. As of December 31, 2013, proved developed reserves of oil and gas were 5,674 Mboe and represented 49% of the proved reserves. As of December 31, 2012, proved developed reserves of oil and gas were 5,789 Mboe and represented 51% of the proved reserves.

Over the past three years, the yearly average of proved developed reserves renewal has remained above 700 Mboe, illustrating TOTAL's ability to consistently transfer proved undeveloped reserves into developed status.

### 1.3. Proved undeveloped reserves

As of December 31, 2014, TOTAL's combined proved undeveloped reserves of oil and gas were 5,817 Mboe as compared to 5,852 Mboe at the end of 2013. The net decrease of 36 Mboe of proved undeveloped reserves is due to the addition of 648 Mboe of undeveloped reserves related to extensions and discoveries, the revision of -105 Mboe of previous estimates (partly resulting from a negative price effect in Canada), a net decrease of 153 Mboe due to acquisitions/divestitures, and the booking of 425 Mboe proved undeveloped reserves to proved developed reserves. In 2014, the cost incurred to develop proved undeveloped reserves (PUDs) was \$18.5 billion, which represents 83% of 2014 development costs incurred, and was related to projects located for the most part in Angola, Australia, Canada, Gabon, Nigeria, Norway, Republic of the Congo and United Kingdom.

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Approximately 49% of the Group's proved undeveloped reserves are associated with producing projects and are located for the most part in Canada, Kazakhstan, Nigeria, Norway, Russia, and Venezuela. These reserves are expected to be developed over time as part of initial field development plans or additional development phases.

The timing to bring these proved reserves into production will depend upon several factors including reservoir performance, surface facilities or plant capacity constraints and contractual limitations on production levels. The remaining proved undeveloped reserves correspond to undeveloped fields or assets for which a development has been sanctioned or is in progress.

The Group's portfolio of projects includes a few large scale and complex developments for which reserves have remained proved undeveloped for more than five years or the Group anticipates that it may take more than five years from the time of recording proved reserves to the start of production. These specific projects represent approximately 18% of the Group's proved undeveloped reserves and include deep offshore developments in Angola, Nigeria and the United Kingdom and development of oil sands in Canada.

These projects are highly complex to develop due to a combination of factors that include, among others, the nature of the reservoir rock and fluid properties, challenging market and operating environments, and the size of the projects. In addition, some of these projects are generally designed and optimized for a given production capacity that controls the pace at which the field is developed and the wells are drilled. At production start-up, only a portion of the proved reserves are developed in order to deliver sufficient production potential to meet capacity constraints and contractual obligations.

Under these specific circumstances, the Group believes that it is justified to report as proved reserves the level of reserves used in connection with the approved project, despite the fact that some of these PUDs may remain undeveloped for more than five years. In addition, TOTAL has demonstrated in recent years the Group's ability to develop and bring into production similar large scale and complex projects, including the development of deep-offshore fields in Angola, Nigeria, the Republic of the Congo, HP/HT fields in the United Kingdom, heavy oil projects in Venezuela and LNG projects in Qatar, Yemen, Nigeria and Indonesia.

The tables provided below are presented by the following geographic areas: Europe, Africa, the Americas, Middle East and Asia (including CIS, with specific figures shown for Russia).

### **1.4. Estimated proved reserves of oil, bitumen and gas**

The following tables present, for oil, bitumen and gas reserves, an estimate of the Group's oil, bitumen and gas quantities by geographic areas as of December 31, 2014, 2013 and 2012.

Quantities shown correspond to proved developed and undeveloped reserves together with changes in quantities for 2014, 2013 and 2012.

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the revised Rule 4-10 of SEC Regulation S-X.

All references in the following tables to reserves or production are to the Group's entire share of such reserves or production.

TOTAL's worldwide proved reserves include the proved reserves of its consolidated subsidiaries as well as its proportionate share of the proved reserves of equity affiliates.

**Table of Contents***1.4.1. Changes in oil, bitumen and gas reserves***Proved developed and undeveloped reserves**

(in million barrels of oil equivalent)	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>Balance as of December 31, 2011</b>	<b>1,737</b>	<b>3,014</b>	<b>1,738</b>	<b>450</b>	<b>1,553</b>	<b>24</b>	<b>8,516</b>
Revisions of previous estimates	64	65	7	(23)	9	6	128
Extensions, discoveries and other	67	173	110	29	40	3	422
Acquisitions of reserves in place	32						32
Sales of reserves in place	(38)	(71)	(8)				(117)
Production for the year	(156)	(261)	(77)	(34)	(87)	(3)	(618)
<b>Balance as of December 31, 2012</b>	<b>1,706</b>	<b>2,920</b>	<b>1,770</b>	<b>422</b>	<b>1,515</b>	<b>30</b>	<b>8,363</b>
Revisions of previous estimates	18	(97)	44	11	48		24
Extensions, discoveries and other	12	20	135	2	226	1	396
Acquisitions of reserves in place					132		132
Sales of reserves in place	(51)		(51)				(102)
Production for the year	(143)	(243)	(74)	(31)	(94)	(3)	(588)
<b>Balance as of December 31, 2013</b>	<b>1,542</b>	<b>2,600</b>	<b>1,824</b>	<b>404</b>	<b>1,827</b>	<b>28</b>	<b>8,225</b>
Revisions of previous estimates	31	48	(11)	7	21	4	100
Extensions, discoveries and other	21	111	151	3	29		315
Acquisitions of reserves in place	1						1
Sales of reserves in place	(26)	(21)			(206)		(253)
Production for the year	(133)	(240)	(76)	(32)	(91)	(3)	(575)
<b>Balance as of December 31, 2014</b>	<b>1,436</b>	<b>2,498</b>	<b>1,888</b>	<b>382</b>	<b>1,580</b>	<b>29</b>	<b>7,813</b>

**Minority interest in proved developed and undeveloped reserves as of**

December 31, 2012		99					99
December 31, 2013		159					159
<b>December 31, 2014</b>		<b>146</b>					<b>146</b>

**Proved developed and undeveloped reserves**

(in million barrels of oil equivalent)	Equity affiliates					Russia	Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)		
<b>Balance as of December 31, 2011</b>		<b>78</b>	<b>456</b>	<b>1,629</b>		<b>744</b>	<b>2,907</b>
Revisions of previous estimates		2	(39)	5		78	46
Extensions, discoveries and other						158	158
Acquisitions of reserves in place						118	118
Sales of reserves in place							
Production for the year			(15)	(146)		(63)	(224)
<b>Balance as of December 31, 2012</b>		<b>80</b>	<b>402</b>	<b>1,488</b>		<b>1,035</b>	<b>3,005</b>
Revisions of previous estimates		(3)	(141)	(3)		33	(114)
Extensions, discoveries and other				14		622	636
Acquisitions of reserves in place						117	117
Sales of reserves in place						(92)	(92)
Production for the year		(1)	(13)	(164)		(73)	(251)
<b>Balance as of December 31, 2013</b>		<b>76</b>	<b>248</b>	<b>1,335</b>		<b>1,642</b>	<b>3,301</b>
Revisions of previous estimates		(2)	2	(8)		6	(2)
Extensions, discoveries and other				2		516	518
Acquisitions of reserves in place						107	107
Sales of reserves in place						(6)	(6)
Production for the year		(1)	(14)	(110)		(83)	(208)
<b>Balance as of December 31, 2014</b>		<b>73</b>	<b>236</b>	<b>1,219</b>		<b>2,182</b>	<b>3,710</b>

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(in million barrels of oil equivalent)	Consolidated subsidiaries and equity affiliates						
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	Total
<b>As of December 31, 2012</b>							
<b>Proved developed and undeveloped reserves</b>	<b>1,706</b>	<b>3,000</b>	<b>2,172</b>	<b>1,910</b>	<b>1,515</b>	<b>1,065</b>	<b>11,368</b>
Consolidated subsidiaries	1,706	2,920	1,770	422	1,515	30	<b>8,363</b>
Equity affiliates		80	402	1,488		1,035	<b>3,005</b>
<b>Proved developed reserves</b>	<b>827</b>	<b>1,584</b>	<b>616</b>	<b>1,718</b>	<b>290</b>	<b>754</b>	<b>5,789</b>
Consolidated subsidiaries	827	1,563	475	349	290	23	<b>3,527</b>
Equity affiliates		21	141	1,369		731	<b>2,262</b>
<b>Proved undeveloped reserves</b>	<b>879</b>	<b>1,416</b>	<b>1,556</b>	<b>192</b>	<b>1,225</b>	<b>311</b>	<b>5,579</b>
Consolidated subsidiaries	879	1,357	1,295	73	1,225	7	<b>4,836</b>
Equity affiliates		59	261	119		304	<b>743</b>
<b>As of December 31, 2013</b>							
<b>Proved developed and undeveloped reserves</b>	<b>1,542</b>	<b>2,676</b>	<b>2,072</b>	<b>1,739</b>	<b>1,827</b>	<b>1,670</b>	<b>11,526</b>
Consolidated subsidiaries	1,542	2,600	1,824	404	1,827	28	<b>8,225</b>
Equity affiliates		76	248	1,335		1,642	<b>3,301</b>
<b>Proved developed reserves</b>	<b>766</b>	<b>1,469</b>	<b>540</b>	<b>1,577</b>	<b>539</b>	<b>783</b>	<b>5,674</b>
Consolidated subsidiaries	766	1,452	452	330	539	21	<b>3,560</b>
Equity affiliates		17	88	1,247		762	<b>2,114</b>
<b>Proved undeveloped reserves</b>	<b>776</b>	<b>1,207</b>	<b>1,532</b>	<b>162</b>	<b>1,288</b>	<b>887</b>	<b>5,852</b>
Consolidated subsidiaries	776	1,148	1,372	74	1,288	7	<b>4,665</b>
Equity affiliates		59	160	88		880	<b>1,187</b>
<b>As of December 31, 2014</b>							
<b>Proved developed and undeveloped reserves</b>	<b>1,436</b>	<b>2,571</b>	<b>2,124</b>	<b>1,601</b>	<b>1,580</b>	<b>2,211</b>	<b>11,523</b>
Consolidated subsidiaries	1,436	2,498	1,888	382	1,580	29	<b>7,813</b>
Equity affiliates		73	236	1,219		2,182	<b>3,710</b>
<b>Proved developed reserves</b>	<b>737</b>	<b>1,472</b>	<b>535</b>	<b>1,442</b>	<b>453</b>	<b>1,067</b>	<b>5,706</b>
Consolidated subsidiaries	737	1,455	450	316	453	18	<b>3,429</b>
Equity affiliates		17	85	1,126		1,049	<b>2,277</b>
<b>Proved undeveloped reserves</b>	<b>699</b>	<b>1,099</b>	<b>1,589</b>	<b>159</b>	<b>1,127</b>	<b>1,144</b>	<b>5,817</b>
Consolidated subsidiaries	699	1,043	1,438	66	1,127	11	<b>4,384</b>
Equity affiliates		56	151	93		1,133	<b>1,433</b>

**Table of Contents****1.4.2. Changes in oil reserves**

Oil reserves include crude oil, condensates and natural gas liquids reserves.

**Proved developed and undeveloped reserves**

(in million barrels)	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>Balance as of December 31, 2011</b>	<b>812</b>	<b>2,095</b>	<b>73</b>	<b>181</b>	<b>553</b>	<b>20</b>	<b>3,734</b>
Revisions of previous estimates	20	61	10	2	3	7	103
Extensions, discoveries and other	27	148	8	28	3	3	217
Acquisitions of reserves in place	7						7
Sales of reserves in place	(32)	(45)	(2)				(79)
Production for the year	(72)	(210)	(12)	(21)	(11)	(3)	(329)
<b>Balance as of December 31, 2012</b>	<b>762</b>	<b>2,049</b>	<b>77</b>	<b>190</b>	<b>548</b>	<b>27</b>	<b>3,653</b>
Revisions of previous estimates	19	50	7	7	75		158
Extensions, discoveries and other	6	19	20	2	20	1	68
Acquisitions of reserves in place					34		34
Sales of reserves in place	(49)		(6)				(55)
Production for the year	(60)	(194)	(12)	(20)	(13)	(3)	(302)
<b>Balance as of December 31, 2013</b>	<b>678</b>	<b>1,924</b>	<b>86</b>	<b>179</b>	<b>664</b>	<b>25</b>	<b>3,556</b>
Revisions of previous estimates	8	33	3	5	10	4	63
Extensions, discoveries and other	3	101	14	3	2		123
Acquisitions of reserves in place							
Sales of reserves in place	(11)	(20)			(32)		(63)
Production for the year	(60)	(191)	(15)	(19)	(12)	(3)	(300)
<b>Balance as of December 31, 2014</b>	<b>618</b>	<b>1,847</b>	<b>88</b>	<b>168</b>	<b>632</b>	<b>26</b>	<b>3,379</b>
<b>Minority interest in proved developed and undeveloped reserves as of</b>							
December 31, 2012		87					87
December 31, 2013		140					140
<b>December 31, 2014</b>		<b>128</b>					<b>128</b>

**Proved developed and undeveloped reserves**

(in million barrels)	Equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>Balance as of December 31, 2011</b>		<b>10</b>	<b>443</b>	<b>565</b>		<b>48</b>	<b>1,066</b>
Revisions of previous estimates		5	(40)	5		9	(21)
Extensions, discoveries and other						51	51
Acquisitions of reserves in place						11	11
Sales of reserves in place							
Production for the year			(15)	(93)		(5)	(113)
<b>Balance as of December 31, 2012</b>		<b>15</b>	<b>388</b>	<b>477</b>		<b>114</b>	<b>994</b>
Revisions of previous estimates		(3)	(138)	(6)		(4)	(151)
Extensions, discoveries and other						32	32
Acquisitions of reserves in place						13	13
Sales of reserves in place							
Production for the year			(13)	(99)		(7)	(119)
<b>Balance as of December 31, 2013</b>		<b>12</b>	<b>237</b>	<b>372</b>		<b>148</b>	<b>769</b>
Revisions of previous estimates		(5)	2	(3)		(3)	(9)
Extensions, discoveries and other				3		81	84
Acquisitions of reserves in place						9	9
Sales of reserves in place						(1)	(1)
Production for the year			(13)	(51)		(9)	(73)
<b>Balance as of December 31, 2014</b>		<b>7</b>	<b>226</b>	<b>321</b>		<b>225</b>	<b>779</b>

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(in million barrels)	Consolidated subsidiaries and equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>As of December 31, 2012</b>							
<b>Proved developed and undeveloped reserves</b>	<b>762</b>	<b>2,064</b>	<b>465</b>	<b>667</b>	<b>548</b>	<b>141</b>	<b>4,647</b>
Consolidated subsidiaries	762	2,049	77	190	548	27	3,653
Equity affiliates		15	388	477		114	994
<b>Proved developed reserves</b>	<b>289</b>	<b>1,145</b>	<b>179</b>	<b>506</b>	<b>34</b>	<b>76</b>	<b>2,229</b>
Consolidated subsidiaries	289	1,139	44	133	34	21	1,660
Equity affiliates		6	135	373		55	569
<b>Proved undeveloped reserves</b>	<b>473</b>	<b>919</b>	<b>286</b>	<b>161</b>	<b>514</b>	<b>65</b>	<b>2,418</b>
Consolidated subsidiaries	473	910	33	57	514	6	1,993
Equity affiliates		9	253	104		59	425
<b>As of December 31, 2013</b>							
<b>Proved developed and undeveloped reserves</b>	<b>678</b>	<b>1,936</b>	<b>323</b>	<b>551</b>	<b>664</b>	<b>173</b>	<b>4,325</b>
Consolidated subsidiaries	678	1,924	86	179	664	25	3,556
Equity affiliates		12	237	372		148	769
<b>Proved developed reserves</b>	<b>274</b>	<b>1,068</b>	<b>128</b>	<b>419</b>	<b>216</b>	<b>88</b>	<b>2,193</b>
Consolidated subsidiaries	274	1,064	45	119	216	19	1,737
Equity affiliates		4	83	300		69	456
<b>Proved undeveloped reserves</b>	<b>404</b>	<b>868</b>	<b>195</b>	<b>132</b>	<b>448</b>	<b>85</b>	<b>2,132</b>
Consolidated subsidiaries	404	860	41	60	448	6	1,819
Equity affiliates		8	154	72		79	313
<b>As of December 31, 2014</b>							
<b>Proved developed and undeveloped reserves</b>	<b>618</b>	<b>1,854</b>	<b>314</b>	<b>489</b>	<b>632</b>	<b>251</b>	<b>4,158</b>
Consolidated subsidiaries	618	1,847	88	168	632	26	3,379
Equity affiliates		7	226	321		225	779
<b>Proved developed reserves</b>	<b>263</b>	<b>1,069</b>	<b>136</b>	<b>377</b>	<b>200</b>	<b>136</b>	<b>2,181</b>
Consolidated subsidiaries	263	1,065	54	117	200	16	1,715
Equity affiliates		4	82	260		120	466
<b>Proved undeveloped reserves</b>	<b>355</b>	<b>785</b>	<b>178</b>	<b>112</b>	<b>432</b>	<b>115</b>	<b>1,977</b>
Consolidated subsidiaries	355	782	34	51	432	10	1,664
Equity affiliates		3	144	61		105	313

**Table of Contents***1.4.3. Changes in bitumen reserves***Proved developed and undeveloped reserves**

(in million barrels)	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>Balance as of December 31, 2011</b>			<b>984</b>				<b>984</b>
Revisions of previous estimates			43				43
Extensions, discoveries and other			15				15
Acquisitions of reserves in place							
Sales of reserves in place							
Production for the year			(4)				(4)
<b>Balance as of December 31, 2012</b>			<b>1,038</b>				<b>1,038</b>
Revisions of previous estimates			2				2
Extensions, discoveries and other			53				53
Acquisitions of reserves in place							
Sales of reserves in place							
Production for the year			(5)				(5)
<b>Balance as of December 31, 2013</b>			<b>1,088</b>				<b>1,088</b>
Revisions of previous estimates			(25)				(25)
Extensions, discoveries and other			87				87
Acquisitions of reserves in place							
Sales of reserves in place							
Production for the year			(5)				(5)
<b>Balance as of December 31, 2014</b>			<b>1,145</b>				<b>1,145</b>
<b>Proved developed reserves as of</b>							
December 31, 2012			18				18
December 31, 2013			15				15
<b>December 31, 2014</b>			<b>17</b>				<b>17</b>
<b>Proved undeveloped reserves as of</b>							
December 31, 2012			1,020				1,020
December 31, 2013			1,073				1,073
<b>December 31, 2014</b>			<b>1,128</b>				<b>1,128</b>

There are no bitumen reserves for equity affiliates.

There are no minority interests for bitumen reserves.

**Table of Contents***1.4.4. Changes in gas reserves***Proved developed and undeveloped reserves**

(in billion cubic feet)	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>Balance as of December 31, 2011</b>	<b>5,014</b>	<b>4,793</b>	<b>3,863</b>	<b>1,518</b>	<b>5,569</b>	<b>18</b>	<b>20,775</b>
Revisions of previous estimates	268	31	(278)	(132)	15		(96)
Extensions, discoveries and other	216	127	478	6	195		1,022
Acquisitions of reserves in place	138						138
Sales of reserves in place	(30)	(173)	(35)				(238)
Production for the year	(462)	(257)	(337)	(75)	(432)	(1)	(1,564)
<b>Balance as of December 31, 2012</b>	<b>5,144</b>	<b>4,521</b>	<b>3,691</b>	<b>1,317</b>	<b>5,347</b>	<b>17</b>	<b>20,037</b>
Revisions of previous estimates	(6)	(887)	199	29	(186)		(851)
Extensions, discoveries and other	27	12	336		1,074		1,449
Acquisitions of reserves in place	1				506		507
Sales of reserves in place	(13)		(243)				(256)
Production for the year	(450)	(248)	(320)	(68)	(457)	(1)	(1,544)
<b>Balance as of December 31, 2013</b>	<b>4,703</b>	<b>3,398</b>	<b>3,663</b>	<b>1,278</b>	<b>6,284</b>	<b>16</b>	<b>19,342</b>
Revisions of previous estimates	129	86	54	7	69		345
Extensions, discoveries and other	99	56	296	1	154		606
Acquisitions of reserves in place	6						6
Sales of reserves in place	(97)	(6)			(941)		(1,044)
Production for the year	(398)	(250)	(320)	(68)	(451)	(1)	(1,488)
<b>Balance as of December 31, 2014</b>	<b>4,442</b>	<b>3,284</b>	<b>3,693</b>	<b>1,218</b>	<b>5,115</b>	<b>15</b>	<b>17,767</b>

**Minority interest in proved developed and undeveloped reserves as of**

December 31, 2012		57					57
December 31, 2013		87					87
<b>December 31, 2014</b>		<b>91</b>					<b>91</b>

**Proved developed and undeveloped reserves**

(in billion cubic feet)	Equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>Balance as of December 31, 2011</b>		<b>363</b>	<b>79</b>	<b>5,802</b>			<b>3,698</b>
Revisions of previous estimates		(21)	5	(4)			366
Extensions, discoveries and other							578
Acquisitions of reserves in place							568
Sales of reserves in place							
Production for the year		(1)	(2)	(287)		(304)	(594)
<b>Balance as of December 31, 2012</b>		<b>341</b>	<b>82</b>	<b>5,511</b>			<b>4,906</b>
Revisions of previous estimates		8	(18)	16			191
Extensions, discoveries and other				77			3,209
Acquisitions of reserves in place							553
Sales of reserves in place							(485)
Production for the year		(6)	(2)	(354)		(345)	(707)
<b>Balance as of December 31, 2013</b>		<b>343</b>	<b>62</b>	<b>5,250</b>			<b>8,029</b>
Revisions of previous estimates		17	2	(25)			50
Extensions, discoveries and other							2,328
Acquisitions of reserves in place							521
Sales of reserves in place							(28)
Production for the year		(4)	(2)	(328)		(392)	(726)
<b>Balance as of December 31, 2014</b>		<b>356</b>	<b>62</b>	<b>4,897</b>			<b>10,508</b>



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(in billion cubic feet)	Consolidated subsidiaries and equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>As of December 31, 2012</b>							
<b>Proved developed and undeveloped reserves</b>	<b>5,144</b>	<b>4,862</b>	<b>3,773</b>	<b>6,828</b>	<b>5,347</b>	<b>4,923</b>	<b>30,877</b>
Consolidated subsidiaries	5,144	4,521	3,691	1,317	5,347	17	20,037
Equity affiliates		341	82	5,511		4,906	10,840
<b>Proved developed reserves</b>	<b>2,927</b>	<b>2,192</b>	<b>2,356</b>	<b>6,656</b>	<b>1,513</b>	<b>3,602</b>	<b>19,246</b>
Consolidated subsidiaries	2,927	2,110	2,316	1,240	1,513	13	10,119
Equity affiliates		82	40	5,416		3,589	9,127
<b>Proved undeveloped reserves</b>	<b>2,217</b>	<b>2,670</b>	<b>1,417</b>	<b>172</b>	<b>3,834</b>	<b>1,321</b>	<b>11,631</b>
Consolidated subsidiaries	2,217	2,411	1,375	77	3,834	4	9,918
Equity affiliates		259	42	95		1,317	1,713
<b>As of December 31, 2013</b>							
<b>Proved developed and undeveloped reserves</b>	<b>4,703</b>	<b>3,741</b>	<b>3,725</b>	<b>6,528</b>	<b>6,284</b>	<b>8,045</b>	<b>33,026</b>
Consolidated subsidiaries	4,703	3,398	3,663	1,278	6,284	16	19,342
Equity affiliates		343	62	5,250		8,029	13,684
<b>Proved developed reserves</b>	<b>2,687</b>	<b>2,009</b>	<b>2,240</b>	<b>6,366</b>	<b>1,821</b>	<b>3,693</b>	<b>18,816</b>
Consolidated subsidiaries	2,687	1,937	2,210	1,210	1,821	13	9,878
Equity affiliates		72	30	5,156		3,680	8,938
<b>Proved undeveloped reserves</b>	<b>2,016</b>	<b>1,732</b>	<b>1,485</b>	<b>162</b>	<b>4,463</b>	<b>4,352</b>	<b>14,210</b>
Consolidated subsidiaries	2,016	1,461	1,453	68	4,463	3	9,464
Equity affiliates		271	32	94		4,349	4,746
<b>As of December 31, 2014</b>							
<b>Proved developed and undeveloped reserves</b>	<b>4,442</b>	<b>3,640</b>	<b>3,755</b>	<b>6,115</b>	<b>5,115</b>	<b>10,523</b>	<b>33,590</b>
Consolidated subsidiaries	4,442	3,284	3,693	1,218	5,115	15	17,767
Equity affiliates		356	62	4,897		10,508	15,823
<b>Proved developed reserves</b>	<b>2,578</b>	<b>2,019</b>	<b>2,167</b>	<b>5,866</b>	<b>1,444</b>	<b>4,959</b>	<b>19,033</b>
Consolidated subsidiaries	2,578	1,952	2,145	1,144	1,444	9	9,272
Equity affiliates		67	22	4,722		4,950	9,761
<b>Proved undeveloped reserves</b>	<b>1,864</b>	<b>1,621</b>	<b>1,588</b>	<b>249</b>	<b>3,671</b>	<b>5,564</b>	<b>14,557</b>
Consolidated subsidiaries	1,864	1,332	1,548	74	3,671	6	8,495
Equity affiliates		289	40	175		5,558	6,062

**Table of Contents****1.5. Results of operations for oil and gas producing activities**

The following tables do not include revenues and expenses related to oil and gas transportation activities and LNG liquefaction and transportation

(M\$)		Consolidated subsidiaries					Russia	Total
		Europe	Africa	Americas	Middle East	Asia (excl. Russia)		
<b>2012</b>								
Revenues	<i>Non-Group sales</i>	2,552	5,638	1,244	929	4,508		<b>14,871</b>
	<i>Group sales</i>	8,809	17,268	820	1,298	750	265	<b>29,210</b>
<b>Total Revenues</b>		<b>11,361</b>	<b>22,906</b>	<b>2,064</b>	<b>2,227</b>	<b>5,258</b>	<b>265</b>	<b>44,081</b>
Production costs		(1,693)	(1,853)	(381)	(437)	(469)	(39)	<b>(4,872)</b>
Exploration expenses		(620)	(469)	(436)	(23)	(306)	(3)	<b>(1,857)</b>
Depreciation, depletion and amortization and valuation allowances		(2,551)	(3,308)	(2,002)	(588)	(1,130)	(75)	<b>(9,654)</b>
Other expenses <sup>(a)</sup>		(419)	(1,742)	(496)	(204)	(133)	(31)	<b>(3,025)</b>
<b>Pre-tax income from producing activities</b>		<b>6,078</b>	<b>15,534</b>	<b>(1,251)</b>	<b>975</b>	<b>3,220</b>	<b>117</b>	<b>24,673</b>
Income tax		(4,469)	(9,485)	291	(496)	(1,572)	(53)	<b>(15,784)</b>
<b>Results of oil and gas producing activities</b>		<b>1,609</b>	<b>6,049</b>	<b>(960)</b>	<b>479</b>	<b>1,648</b>	<b>64</b>	<b>8,889</b>
<b>2013</b>								
Revenues	<i>Non-Group sales</i>	2,170	4,575	1,331	1,079	4,626		<b>13,781</b>
	<i>Group sales</i>	7,749	16,072	808	901	742	268	<b>26,540</b>
<b>Total Revenues</b>		<b>9,919</b>	<b>20,647</b>	<b>2,139</b>	<b>1,980</b>	<b>5,368</b>	<b>268</b>	<b>40,321</b>
Production costs		(1,762)	(1,974)	(415)	(498)	(546)	(39)	<b>(5,234)</b>
Exploration expenses		(483)	(583)	(539)	(165)	(395)	(4)	<b>(2,169)</b>
Depreciation, depletion and amortization and valuation allowances		(1,817)	(3,433)	(1,214)	(725)	(1,607)	(85)	<b>(8,881)</b>
Other expenses <sup>(a)</sup>		(493)	(1,578)	(434)	(106)	(149)	(33)	<b>(2,793)</b>
<b>Pre-tax income from producing activities</b>		<b>5,364</b>	<b>13,079</b>	<b>(463)</b>	<b>486</b>	<b>2,671</b>	<b>107</b>	<b>21,244</b>
Income tax		(3,621)	(8,281)	56	(419)	(1,362)	(46)	<b>(13,673)</b>
<b>Results of oil and gas producing activities</b>		<b>1,743</b>	<b>4,798</b>	<b>(407)</b>	<b>67</b>	<b>1,309</b>	<b>61</b>	<b>7,571</b>
<b>2014</b>								
Revenues	<i>Non-Group sales</i>	2,073	3,561	1,195	804	4,423		<b>12,056</b>
	<i>Group sales</i>	5,966	13,386	971	972	742	236	<b>22,273</b>
<b>Total Revenues</b>		<b>8,039</b>	<b>16,947</b>	<b>2,166</b>	<b>1,776</b>	<b>5,165</b>	<b>236</b>	<b>34,329</b>
Production costs		(1,729)	(2,221)	(466)	(503)	(738)	(44)	<b>(5,701)</b>
Exploration expenses		(617)	(631)	(183)	(144)	(381)	(9)	<b>(1,965)</b>
Depreciation, depletion and amortization and valuation allowances		(1,988)	(4,750)	(5,717)	(545)	(2,058)	(97)	<b>(15,155)</b>
Other expenses <sup>(a)</sup>		(419)	(1,375)	(402)	(114)	(167)	(29)	<b>(2,506)</b>
<b>Pre-tax income from producing activities</b>		<b>3,286</b>	<b>7,970</b>	<b>(4,602)</b>	<b>470</b>	<b>1,821</b>	<b>57</b>	<b>9,002</b>
Income tax		(1,683)	(6,066)	882	(334)	(1,159)	(32)	<b>(8,392)</b>
<b>Results of oil and gas producing activities</b>		<b>1,603</b>	<b>1,904</b>	<b>(3,720)</b>	<b>136</b>	<b>662</b>	<b>25</b>	<b>610</b>

<sup>(a)</sup> Including production taxes and accretion expense as provided for by IAS 37 (\$502 million in 2012, \$566 million in 2013, \$526 million in 2014)

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(M\$)	Equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2012</b>							
Revenues				1,394		1,002	<b>2,396</b>
	<i>Non-Group sales</i>						
	<i>Group sales</i>		1,586	10,086		(416)	<b>11,256</b>
<b>Total Revenues</b>			<b>1,586</b>	<b>11,480</b>		<b>586</b>	<b>13,652</b>
Production costs			(161)	(371)		(113)	<b>(645)</b>
Exploration expenses						(4)	<b>(4)</b>
Depreciation, depletion and amortization and valuation allowances			(77)	(385)		(291)	<b>(753)</b>
Other expenses			(969)	(8,896)		(68)	<b>(9,933)</b>
<b>Pre-tax income from producing activities</b>			<b>379</b>	<b>1,828</b>		<b>110</b>	<b>2,317</b>
Income tax			(80)	(390)		(66)	<b>(536)</b>
<b>Results of oil and gas producing activities</b>			<b>299</b>	<b>1,438</b>		<b>44</b>	<b>1,781</b>
<b>2013</b>							
Revenues				2,020		756	<b>2,776</b>
	<i>Non-Group sales</i>						
	<i>Group sales</i>		999	10,289		14	<b>11,302</b>
<b>Total Revenues</b>			<b>999</b>	<b>12,309</b>		<b>770</b>	<b>14,078</b>
Production costs			(107)	(481)		(55)	<b>(643)</b>
Exploration expenses						(3)	<b>(3)</b>
Depreciation, depletion and amortization and valuation allowances			(45)	(464)		(259)	<b>(768)</b>
Other expenses			(639)	(8,952)		(121)	<b>(9,712)</b>
<b>Pre-tax income from producing activities</b>			<b>208</b>	<b>2,412</b>		<b>332</b>	<b>2,952</b>
Income tax			(103)	(545)		(109)	<b>(757)</b>
<b>Results of oil and gas producing activities</b>			<b>105</b>	<b>1,867</b>		<b>223</b>	<b>2,195</b>
<b>2014</b>							
Revenues				2,094		1,117	<b>3,211</b>
	<i>Non-Group sales</i>						
	<i>Group sales</i>	(21)	885	4,854		(249)	<b>5,469</b>
<b>Total Revenues</b>		<b>(21)</b>	<b>885</b>	<b>6,948</b>		<b>868</b>	<b>8,680</b>
Production costs			(123)	(311)		(121)	<b>(555)</b>
Exploration expenses						(1)	<b>(1)</b>
Depreciation, depletion and amortization and valuation allowances			(87)	(304)		(54)	<b>(445)</b>
Other expenses			(537)	(3,806)		(142)	<b>(4,485)</b>
<b>Pre-tax income from producing activities</b>		<b>(21)</b>	<b>138</b>	<b>2,527</b>		<b>550</b>	<b>3,194</b>
Income tax			(207)	(689)		(140)	<b>(1,036)</b>
<b>Results of oil and gas producing activities</b>		<b>(21)</b>	<b>(69)</b>	<b>1,838</b>		<b>410</b>	<b>2,158</b>

**Table of Contents****1.6. Cost incurred**

The following tables set forth the costs incurred in the Group's oil and gas property acquisition, exploration and development activities, including both capitalized and expensed amounts. They do not include costs incurred related to oil and gas transportation and LNG liquefaction and transportation activities.

(M\$)	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2012</b>							
Proved property acquisition	259	35			16		310
Unproved property acquisition	52	1,749	494	226	33		2,554
Exploration costs	768	742	734	45	434	3	2,726
Development costs <sup>(a)</sup>	4,090	5,563	2,351	394	4,172	107	16,677
<b>Total cost incurred</b>	<b>5,169</b>	<b>8,089</b>	<b>3,579</b>	<b>665</b>	<b>4,655</b>	<b>110</b>	<b>22,267</b>
<b>2013</b>							
Proved property acquisition		175		3	487		665
Unproved property acquisition	17	512	2,105	85	85		2,804
Exploration costs	679	889	585	231	538	4	2,926
Development costs <sup>(a)</sup>	5,239	8,545	3,191	464	5,447	147	23,033
<b>Total cost incurred</b>	<b>5,935</b>	<b>10,121</b>	<b>5,881</b>	<b>783</b>	<b>6,557</b>	<b>151</b>	<b>29,428</b>
<b>2014</b>							
Proved property acquisition	57	17		(1)	32		105
Unproved property acquisition	17	69	544	7	66		703
Exploration costs	466	1,057	375	228	485	9	2,620
Development costs <sup>(a)</sup>	4,495	8,126	3,468	478	4,308	116	20,991
<b>Total cost incurred</b>	<b>5,035</b>	<b>9,269</b>	<b>4,387</b>	<b>712</b>	<b>4,891</b>	<b>125</b>	<b>24,419</b>

**Group's share of costs of property acquisition, exploration and development**

(M\$)	Equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2012</b>							
Proved property acquisition						306	306
Unproved property acquisition						(28)	(28)
Exploration costs							
Development costs <sup>(a)</sup>			214	488		259	961
<b>Total cost incurred</b>			<b>214</b>	<b>488</b>		<b>537</b>	<b>1,239</b>
<b>2013</b>							
Proved property acquisition						274	274
Unproved property acquisition						141	141
Exploration costs							
Development costs <sup>(a)</sup>			170	458		319	947
<b>Total cost incurred</b>			<b>170</b>	<b>458</b>		<b>734</b>	<b>1,362</b>
<b>2014</b>							
Proved property acquisition						246	246
Unproved property acquisition						32	32
Exploration costs							
Development costs <sup>(a)</sup>			195	500		692	1,387
<b>Total cost incurred</b>			<b>195</b>	<b>500</b>		<b>970</b>	<b>1,665</b>

<sup>(a)</sup> Including asset retirement costs capitalized during the year and any gains or losses recognized upon settlement of asset retirement obligation during the year.



**Table of Contents****1.8. Standardized measure of discounted future net cash flows (excluding transportation)**

The standardized measure of discounted future net cash flows relating to proved oil and gas reserve quantities was developed as follows:

estimates of proved reserves and the corresponding production profiles are based on existing technical and economic conditions;  
the estimated future cash flows are determined based on prices used in estimating the Group's proved oil and gas reserves;  
the future cash flows incorporate estimated production costs (including production taxes), future development costs and asset retirement costs. All cost estimates are based on year-end technical and economic conditions;  
future income taxes are computed by applying the year-end statutory tax rate to future net cash flows after consideration of permanent differences and future income tax credits; and  
future net cash flows are discounted at a standard discount rate of 10 percent.

These principles applied are those required by ASC 932 and do not reflect the expectations of real revenues from these reserves, nor their present value; hence, they do not constitute criteria for investment decisions. An estimate of the fair value of reserves should also take into account, among other things, the recovery of reserves not presently classified as proved, anticipated future changes in prices and costs and a discount factor more representative of the time value of money and the risks inherent in reserves estimates.

(M\$)	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>As of December 31, 2012</b>							
Future cash inflows	120,136	228,622	74,932	21,231	88,907	2,578	<b>536,406</b>
Future production costs	(26,210)	(50,380)	(33,282)	(6,719)	(17,980)	(1,633)	<b>(136,204)</b>
Future development costs	(31,563)	(37,242)	(16,689)	(4,906)	(13,504)	(613)	<b>(104,517)</b>
Future income taxes	(35,305)	(87,660)	(5,743)	(3,521)	(16,054)	(237)	<b>(148,520)</b>
<b>Future net cash flows, after income taxes</b>	<b>27,058</b>	<b>53,340</b>	<b>19,218</b>	<b>6,085</b>	<b>41,369</b>	<b>95</b>	<b>147,165</b>
Discount at 10%	(13,596)	(22,851)	(14,960)	(2,870)	(25,743)	7	<b>(80,013)</b>
<b>Standardized measure of discounted future net cash flows</b>	<b>13,462</b>	<b>30,489</b>	<b>4,258</b>	<b>3,215</b>	<b>15,626</b>	<b>102</b>	<b>67,152</b>
<b>As of December 31, 2013</b>							
Future cash inflows	106,968	205,741	78,813	19,413	93,404	2,332	<b>506,671</b>
Future production costs	(24,973)	(50,531)	(36,172)	(6,950)	(18,548)	(1,456)	<b>(138,630)</b>
Future development costs	(30,534)	(34,364)	(18,844)	(4,282)	(16,570)	(526)	<b>(105,120)</b>
Future income taxes	(27,307)	(73,232)	(5,190)	(3,030)	(14,946)	(219)	<b>(123,924)</b>
<b>Future net cash flows, after income taxes</b>	<b>24,154</b>	<b>47,614</b>	<b>18,607</b>	<b>5,151</b>	<b>43,340</b>	<b>131</b>	<b>138,997</b>
Discount at 10%	(10,813)	(19,397)	(15,304)	(2,490)	(27,670)	(49)	<b>(75,723)</b>
<b>Standardized measure of discounted future net cash flows</b>	<b>13,341</b>	<b>28,217</b>	<b>3,303</b>	<b>2,661</b>	<b>15,670</b>	<b>82</b>	<b>63,274</b>
<b>As of December 31, 2014</b>							
Future cash inflows	87,950	184,975	87,965	17,214	86,184	2,294	<b>466,582</b>
Future production costs	(23,722)	(49,796)	(38,776)	(6,240)	(16,700)	(1,255)	<b>(136,489)</b>
Future development costs	(28,529)	(35,683)	(16,728)	(3,534)	(12,177)	(780)	<b>(97,431)</b>
Future income taxes	(15,363)	(59,063)	(5,891)	(2,881)	(13,475)	(172)	<b>(96,845)</b>
<b>Future net cash flows, after income taxes</b>	<b>20,336</b>	<b>40,433</b>	<b>26,570</b>	<b>4,559</b>	<b>43,832</b>	<b>87</b>	<b>135,817</b>
Discount at 10%	(7,928)	(16,026)	(19,489)	(2,173)	(29,422)	(5)	<b>(75,043)</b>
<b>Standardized measure of discounted future net cash flows</b>	<b>12,408</b>	<b>24,407</b>	<b>7,081</b>	<b>2,386</b>	<b>14,410</b>	<b>82</b>	<b>60,774</b>

(M\$)

**Minority interests in future net cash flows as of**

As of December 31, 2012	646	<b>646</b>
As of December 31, 2013	808	<b>808</b>
<b>As of December 31, 2014</b>	<b>1,103</b>	<b>1,103</b>

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(M\$)	Equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>As of December 31, 2012</b>							
Future cash inflows		2,710	35,363	82,785		12,101	<b>132,959</b>
Future production costs		(127)	(22,231)	(46,178)		(4,208)	<b>(72,744)</b>
Future development costs			(3,042)	(3,824)		(5,034)	<b>(11,900)</b>
Future income taxes		(505)	(4,322)	(6,997)		(835)	<b>(12,659)</b>
<b>Future net cash flows, after income taxes</b>		<b>2,078</b>	<b>5,768</b>	<b>25,786</b>		<b>2,024</b>	<b>35,656</b>
Discount at 10%		(1,402)	(3,838)	(13,295)		(1,230)	<b>(19,765)</b>
<b>Standardized measure of discounted future net cash flows</b>		<b>676</b>	<b>1,930</b>	<b>12,491</b>		<b>794</b>	<b>15,891</b>
<b>As of December 31, 2013</b>							
Future cash inflows		1,337	19,690	74,872		37,237	<b>133,136</b>
Future production costs		(139)	(11,975)	(38,526)		(12,555)	<b>(63,195)</b>
Future development costs			(1,675)	(3,388)		(5,119)	<b>(10,182)</b>
Future income taxes		(347)	(2,865)	(6,722)		(2,189)	<b>(12,123)</b>
<b>Future net cash flows, after income taxes</b>		<b>851</b>	<b>3,175</b>	<b>26,236</b>		<b>17,374</b>	<b>47,636</b>
Discount at 10%		(636)	(1,871)	(13,402)		(16,308)	<b>(32,217)</b>
<b>Standardized measure of discounted future net cash flows</b>		<b>215</b>	<b>1,304</b>	<b>12,834</b>		<b>1,066</b>	<b>15,419</b>
<b>As of December 31, 2014</b>							
Future cash inflows		1,698	16,209	68,109		45,472	<b>131,488</b>
Future production costs			(9,393)	(36,848)		(13,536)	<b>(59,777)</b>
Future development costs		(132)	(1,683)	(3,814)		(3,190)	<b>(8,819)</b>
Future income taxes		(630)	(1,327)	(5,525)		(3,886)	<b>(11,368)</b>
<b>Future net cash flows, after income taxes</b>		<b>936</b>	<b>3,806</b>	<b>21,922</b>		<b>24,860</b>	<b>51,524</b>
Discount at 10%		(575)	(2,078)	(10,331)		(19,447)	<b>(32,431)</b>
<b>Standardized measure of discounted future net cash flows</b>		<b>361</b>	<b>1,728</b>	<b>11,591</b>		<b>5,413</b>	<b>19,093</b>

**1.9. Changes in the standardized measure of discounted future net cash flows**

(M\$)	Consolidated subsidiaries		
	2012	2013	2014
<b>Beginning of year</b>			
Sales and transfers, net of production costs	(36,685)	(32,860)	(26,647)
Net change in sales and transfer prices and in production costs and other expenses	3,532	(8,007)	(16,703)
Extensions, discoveries and improved recovery	1,749	1,106	1,912
Changes in estimated future development costs	(8,381)	(10,803)	(5,407)
Previously estimated development costs incurred during the year	15,220	18,218	21,484
Revisions of previous quantity estimates	3,504	1,511	(1,505)
Accretion of discount	6,644	6,715	6,327
Net change in income taxes	18,034	20,178	20,116
Purchases of reserves in place	385	1,459	26
Sales of reserves in place	(3,290)	(1,395)	(2,103)
<b>End of year</b>	<b>67,152</b>	<b>63,274</b>	<b>60,774</b>

(M\$)	Equity affiliates		
	2012	2013	2014
<b>Beginning of year</b>			
Sales and transfers, net of production costs	(3,074)	(3,723)	(3,639)
Net change in sales and transfer prices and in production costs and other expenses	(1,702)	(1,056)	(1,546)
Extensions, discoveries and improved recovery	(32)	4,980	4,444
Changes in estimated future development costs	(638)	540	190
Previously estimated development costs incurred during the year	1,042	1,101	1,330
Revisions of previous quantity estimates	1,268	(5,020)	19
Accretion of discount	1,574	1,589	1,542
Net change in income taxes	1,693	1,107	834
Purchases of reserves in place	23	520	543
Sales of reserves in place		(510)	(43)
<b>End of year</b>	<b>15,891</b>	<b>15,419</b>	<b>19,093</b>





**Table of Contents****2. Other information****2.1. Net gas production, production prices and production costs**

	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2012</b>							
<b>Natural gas production available for sale (Mcf/d)<sup>(a)</sup></b>	1,166	593	901	171	1,123		<b>3,955</b>
<b>Production prices<sup>(b)</sup></b>							
Oil (\$/b)	102.56	106.19	79.46	104.14	99.45	88.02	<b>103.86</b>
Bitumen (\$/b)			45.32				<b>45.32</b>
Natural gas (\$/kcf)	9.12	2.82	2.86	1.15	10.73		<b>6.82</b>
<b>Production costs per unit of production (\$/boe)<sup>(c)</sup></b>							
Total liquids and natural gas	11.28	7.32	5.03	13.83	5.67	13.15	<b>8.17</b>
Bitumen			30.83				<b>30.83</b>
	Equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2012</b>							
<b>Natural gas production available for sale (Mcf/d)<sup>(a)</sup></b>				769		813	<b>1,583</b>
<b>Production prices<sup>(b)</sup></b>							
Oil (\$/b)			135.05	106.97		36.32	<b>106.98</b>
Bitumen (\$/b)							
Natural gas (\$/kcf)				1.73		1.22	<b>1.57</b>
<b>Production costs per unit of production (\$/boe)<sup>(c)</sup></b>							
Total liquids and natural gas			11.36	2.55		1.85	<b>2.92</b>
Bitumen							
	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2013</b>							
<b>Natural gas production available for sale (Mcf/d)<sup>(a)</sup></b>	1,134	569	860	149	1,193		<b>3,905</b>
<b>Production prices<sup>(b)</sup></b>							
Oil (\$/b)	97.75	102.67	65.94	98.57	95.32	85.2	<b>99.34</b>
Bitumen (\$/b)			45.73				<b>45.73</b>
Natural gas (\$/kcf)	9.52	2.65	3.53	1.13	10.15		<b>7.02</b>
<b>Production costs per unit of production (\$/boe)<sup>(c)</sup></b>							
Total liquids and natural gas	12.91	8.39	5.68	17.17	6.13	12.19	<b>9.24</b>
Bitumen			31.74				<b>31.74</b>
	Equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2013</b>							
<b>Natural gas production available for sale (Mcf/d)<sup>(a)</sup></b>				942		927	<b>1,869</b>
<b>Production prices<sup>(b)</sup></b>							
Oil (\$/b)			82.47	104.42		51.64	<b>99.03</b>
Bitumen (\$/b)							
Natural gas (\$/kcf)				2.36		1.08	<b>1.96</b>
<b>Production costs per unit of production (\$/boe)<sup>(c)</sup></b>							
Total liquids and natural gas			8.31	2.97		0.78	<b>2.61</b>

Bitumen

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	Consolidated subsidiaries						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2014</b>							
<b>Natural gas production available for sale (Mcf/d)<sup>(a)</sup></b>	1,008	567	849	156	1,179		<b>3,759</b>
<b>Production prices<sup>(b)</sup></b>							
Oil (\$/b)	85.57	89.97	60.38	88.34	86.51	81.38	<b>87.26</b>
Bitumen (\$/b)			42.83				<b>42.83</b>
Natural gas (\$/kcf)	7.93	2.64	3.56	1.16	9.32		<b>6.34</b>
<b>Production costs per unit of production (\$/boe)<sup>(c)</sup></b>							
Total liquids and natural gas	13.57	9.60	6.24	17.41	8.40	14.72	<b>10.31</b>
Bitumen			42.04				<b>42.04</b>
	Equity affiliates						Total
	Europe	Africa	Americas	Middle East	Asia (excl. Russia)	Russia	
<b>2014</b>							
<b>Natural gas production available for sale (Mcf/d)<sup>(a)</sup></b>				872		1,059	<b>1,931</b>
<b>Production prices<sup>(b)</sup></b>							
Oil (\$/b)			85.72	88.92		10.12	<b>79.07</b>
Bitumen (\$/b)							
Natural gas (\$/kcf)				3.37		2.55	<b>3.05</b>
<b>Production costs per unit of production (\$/boe)<sup>(c)</sup></b>							
Total liquids and natural gas			9.19	2.86		1.48	<b>2.72</b>
Bitumen							

<sup>(a)</sup> The reported volumes are different from those shown in the reserves table due to gas consumed in operations that are excluded.

<sup>(b)</sup> The volumes used for calculation of the average sales prices are the Group's sales of its own production.

<sup>(c)</sup> The volumes of liquids used for this computation are shown in the proved reserves tables of this report. The reported volumes for natural gas are different from those shown in the reserves table due to gas consumed in operations.