PLDT Inc.
Form 20-F
April 15, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 20-F

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, 2018
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 1-03006

PLDT Inc.

(Exact name of Registrant as specified in its charter)

Republic of the Philippines

(Jurisdiction of incorporation or organization)

Ramon Cojuangco Building

Makati Avenue

Makati City, Philippines

(Address of principal executive offices)

Atty. Ma. Lourdes C. Rausa-Chan, telephone: +(632) 816-8556; lrchan@pldt.com.ph;
Ramon Cojuangco Bldg., Makati Avenue, Makati City, Philippines

(Name, telephone, e-mail and/or facsimile number and address of Company contact person)

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

Title of each class	Name of each exchange on which registered
Common Capital Stock, Par Value Five Philippine Pesos Per Share	New York Stock Exchange*
American Depositary Shares, evidenced by American Depositary Receipts, each representing one share of Common Capital Stock	New York Stock Exchange

*Registered on the New York Stock Exchange not for trading but only in connection with the registration of American Depositary Shares, or ADSs, pursuant to the requirements of such stock exchange.

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.

None

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

As at December 31, 2018:
216,055,775 shares of Common Capital Stock, Par Value Five Philippine Pesos Per Share
300,000,870 shares of Non-voting Preferred Stock, Par Value Ten Philippine Pesos Per Share
150,000,000 shares of Voting Preferred Stock, Par Value One Philippine Peso Per Share

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 every Interactive Data File required to be submitted 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 such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards[1] provided pursuant to Section 13(a) of the Exchange Act.

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

U.S. GAAP	International Financial Reporting Standards as issued by the International 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

[1] The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

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CERTAIN CONVENTIONS AND TERMS USED IN THIS REPORT

Unless the context indicates or otherwise requires, references to "we," "us," "our" or "PLDT Group" mean PLDT Inc. (formerly Philippine Long Distance Telephone Company) and its consolidated subsidiaries, and references to "PLDT" or "the Company" mean PLDT Inc., excluding its consolidated subsidiaries (see Note 2 – Summary of Significant Accounting Policies to the accompanying audited consolidated financial statements in Item 18. "Financial Statements" for a list of these subsidiaries, including a description of their respective principal business activities).

Any discrepancies in any table between totals and the sums of the amounts listed are due to rounding.

All references to the "Philippines" contained in this report mean the Republic of the Philippines and all references to the "U.S." or the "United States" are to the United States of America.

In this report, unless otherwise specified or the context otherwise requires, all references to "pesos," "Philippine pesos" or "Php" are to the lawful currency of the Philippines, all references to "dollars," "U.S. dollars" or "US$" are to the lawful currency of the United States and all references to "Japanese yen," "JP¥" or "¥" are to the lawful currency of Japan. Unless otherwise indicated, conversion of peso amounts into U.S. dollars in this report were made based on the volume weighted average exchange rate quoted through the Bankers Association of the Philippines, or BAP, which was Php52.56 to US$1.00 on December 31, 2018. On March 20, 2019, the volume weighted average exchange rate quoted was Php52.89 to US$1.00.

In this annual report, each reference to:

- ARPU means average revenue per user;
- BIR means Bureau of Internal Revenue;
- BSP means Bangko Sentral ng Pilipinas;
- CMTS means cellular mobile telephone system;
- CPCN means Certificate of Public Convenience and Necessity;
- DFON means domestic fiber optic network;
- Digitel means Digital Telecommunications Phils., Inc.;
- DMPI means Digitel Mobile Philippines, Inc.;
- DSL means digital subscriber line;
- First Pacific means First Pacific Company Limited;
- First Pacific Group means First Pacific and its Philippine affiliates;
- FP Parties means First Pacific and certain Philippine affiliates and wholly-owned non-Philippine subsidiary;
- FTTH means Fiber-to-the-HOME;
- GAAP means Generally Accepted Accounting Principles;
- GSM means global system for mobile communications;
- HSPA means high-speed packet access;
- IFRS means International Financial Reporting Standards, as issued by the International Accounting Standards Board;
- IGF means international gateway facility;
- IP means internet protocol;
- IT means information technology;
- LEC means local exchange carrier;
- LTE means long-term evolution;
- MVNO means mobile virtual network operations;
- NGN means Next Generation Network;

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- NTC means the National Telecommunications Commission of the Philippines;
- NTT means Nippon Telegraph and Telephone Corporation;
- NTT Communications means NTT Communications Corporation, a wholly-owned subsidiary of NTT;
- NTT DOCOMO means NTT DOCOMO, Inc., a majority-owned and publicly traded subsidiary of NTT;
- PAPTELCO means Philippine Association of Private Telephone Companies, Inc.;
- PCEV means PLDT Communications and Energy Ventures, Inc.;
- PDRs means Philippine Depositary Receipts;
- Philippine SEC means the Philippine Securities and Exchange Commission;
- PLDT Beneficial Trust Fund means the beneficial trust fund created by PLDT to pay the benefits under the PLDT Employees' Benefit Plan;
- PLP means PLDT Landline Plus;
- PSE means the Philippine Stock Exchange, Inc.;
- R.A. means Republic Act of the Philippines;
- SIM means Subscriber Identification Module;
- Smart means Smart Communications, Inc.;
- U.S. SEC means the United States Securities and Exchange Commission;
- VAS means Value-Added Service;
- VoIP means Voice over Internet Protocol;
- VPN means virtual private network;
- W-CDMA means Wideband-Code Division Multiple Access;
- WiFi means a wireless network technology that uses radio waves to provide high-speed internet and network connections; and
- WiMAX means Worldwide Interoperability for Microwave Access.

FORWARD-LOOKING STATEMENTS

Some information in this report may contain forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended. We have based these forward-looking statements on our current beliefs, expectations and intentions as to facts, actions and events that will or may occur in the future. Such statements are generally identified by forward-looking words such as "believe," "plan," "anticipate," "continue," "estimate," "expect," "may," "will" or other similar

A forward-looking statement may include a statement of the assumptions or bases underlying the forward-looking statement. We have chosen these assumptions or bases in good faith. These forward-looking statements are subject to risks, uncertainties and assumptions, some of which are beyond our control. In addition, these forward-looking statements reflect our current views with respect to future events and are not a guarantee of future performance. Actual results may differ materially from information contained in the forward-looking statements as a result of a number of factors, including, without limitation, the risk factors set forth in Item 3. "Key Information – Risk Factors." When considering forward-looking statements, you should keep in mind the description of risks and other cautionary statements in this report.

You should also keep in mind that any forward-looking statement made by us in this report or elsewhere speaks only as at the date on which we made it. New risks and uncertainties come up from time to time, and it is impossible for us to predict these events or how they may affect us. We have no duty to, and do not intend to, update or revise the statements in this report after the date hereof. In light of these risks and uncertainties, you should keep in mind that actual results may differ materially from any forward-looking statement made in this report or elsewhere.

PRESENTATION OF FINANCIAL INFORMATION

Our consolidated financial statements as at December 31, 2018 and 2017 and for the three years ended December 31, 2018, 2017 and 2016 included in Item 18. “Financial Statements” of this annual report on Form 20-F have been prepared in conformity with IFRS.

As at December 31, 2018, our business activities were categorized into three business units: Wireless, Fixed Line and Others.

PART I

Item 1. Identity of Directors, Senior Management and Advisors
Not applicable.

Item 2. Offer Statistics and Expected Timetable
Not applicable.

Item 3. Key Information
Performance Indicators

We use a number of non-GAAP performance indicators to monitor financial performance. These are summarized below and discussed later in this report.

Adjusted EBITDA

Adjusted EBITDA is measured as net income excluding depreciation and amortization, amortization of intangible assets, asset impairment on noncurrent assets, financing costs, interest income, equity share in net earnings (losses) of associates and joint ventures, foreign exchange gains (losses) – net, gains (losses) on derivative financial instruments – net, provision for (benefit from) income tax and other income (expenses) – net. Adjusted EBITDA is monitored by the management for each business unit separately for purposes of making decisions about resource allocation and performance assessment. Adjusted EBITDA is presented because our management believes that it is widely used by investors in their analysis of the performance of PLDT and can assist them in their comparison of PLDT's performance with those of other companies in the technology, media and telecommunications sector. We also present Adjusted EBITDA because it is used by some investors as a way to measure a company's ability to incur and service debt, make capital expenditures and meet working capital requirements. Companies in the technology, media and telecommunications sector have historically reported Adjusted EBITDA as a supplement to financial measures in accordance with IFRS. Adjusted EBITDA should not be considered as an alternative to net income as an indicator of our performance, nor should Adjusted EBITDA be considered as an alternative to cash flows from operating activities, as a measure of liquidity or as an alternative to any other measure determined in accordance with IFRS. Unlike net income, Adjusted EBITDA does not include depreciation and amortization or financing costs and, therefore, does not reflect current or future capital expenditures or the cost of capital. We compensate for these limitations by using Adjusted EBITDA as only one of several comparative tools, together with IFRS-based measurements, to assist in the evaluation of operating performance. Such IFRS-based measurements include income before income tax, net income, and operating, investing and financing cash flows. We have significant uses of cash flows, including capital expenditures, interest payments, debt principal repayments, taxes and other non-recurring charges, which are not reflected in Adjusted EBITDA. Our calculation of Adjusted EBITDA may be different from the calculation methods used by other companies and, therefore, comparability may be limited. A reconciliation of our consolidated net income to our consolidated Adjusted EBITDA for the years ended December 31, 2018, 2017 and 2016 is presented in Item 5. "Operating and Financial Review and Prospects — Management's Financial Review" and Note 4 — Operating Segment Information to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Core Income

Core income is measured as net income attributable to equity holders of PLDT (net income less net income attributable to non-controlling interests), excluding foreign exchange gains (losses) – net, gains (losses) on derivative financial instruments – net (excluding hedge costs), asset impairment on noncurrent assets, nonrecurring gains (losses), net of tax effect of aforementioned adjustments, as applicable, and similar adjustments to equity share in net earnings (losses) of associates and joint ventures. Core income results are monitored by the management for each business unit separately for purposes of making decisions about resource allocation and performance assessment. Also, core income is used by the management as a basis for determining the level of dividend payouts to shareholders and a basis for granting incentives to employees. Core income should not be considered as an alternative to income before income tax or net income determined in accordance with IFRS as an indicator of our performance. Unlike net income, core income does not include foreign exchange gains and losses, gains and losses on derivative financial instruments, asset impairments and nonrecurring gains and losses. We compensate for these limitations by using core income as only one of several comparative tools, together with IFRS-based measurements, to assist in the evaluation of operating performance. Such IFRS-based measurements include income before income tax and net income. Our calculation of core income may be different from the calculation methods used by other companies and, therefore, comparability may be limited. A reconciliation of our consolidated net income to our consolidated core income for the years ended December 31, 2018, 2017 and 2016 is presented in Item 5. “Operating and Financial Review and Prospects – Management’s Financial Review” and Note 4 – Operating Segment Information to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

Selected Financial Data

The selected consolidated financial information below as at December 31, 2018, 2017 and 2016 and for the financial years ended December 31, 2018, 2017 and 2016, should be read in conjunction with, and is qualified in its entirety by reference to, our audited consolidated financial statements, and the accompanying notes, included elsewhere in Item 18. “Financial Statements” of this annual report on Form 20-F. As disclosed under “Presentation of Financial Information,” our consolidated financial statements as at and for the years ended December 31, 2018, 2017 and 2016 have been prepared and presented in conformity with IFRS. The selected consolidated financial information as at December 31, 2015 and 2014 have been derived from our audited financial statements not included in this annual report.

We have adopted IFRS 9, Financial Instruments, with a date of initial application of January 1, 2018. IFRS 9 replaces IAS 39, Financial Instruments: Recognition and Measurement, and all previous versions of IFRS 9. The standard introduces new requirements for classification and measurement, impairment and hedge accounting. We have also adopted IFRS 15, Revenues from Contracts with Customers, with a date of initial application of January 1, 2018. IFRS 15 supersedes IAS 11, Construction Contracts, IAS 18, Revenue, and related interpretations and it applies to all revenue arising from contracts with customers, unless those contracts are in the scope of other standards.

We applied the modified retrospective method upon adoption of IFRS 9 and IFRS 15 with the date of initial application of January 1, 2018. Under this method, the cumulative effect arising from the transition was recognized as an adjustment to the opening balance of retained earnings. Accordingly, comparative information for prior periods were not restated. See Note 2 – Summary of Significant Accounting Policies and Note 3 - Management’s Use of Accounting Judgments, Estimates and Assumptions to the accompanying audited consolidated financial statements in Item 18. “Financial Statements” for further discussion.

	2018[1]	2018	2017	2016	2015	2014
	(in millions, except earnings per common share amounts, weighted average number of common shares and dividends declared per common share amounts)					
Statements of Operations Data:						
Revenues	US $3,135	Php 164,752	Php 159,926	Php 165,262	Php 171,103	Php 170,835
Service revenues	2,934	154,207	151,165	157,210	162,930	164,943
Non-service revenues	201	10,545	8,761	8,052	8,173	5,892
Expenses	2,873	150,979	150,415	140,559	139,268	130,457
Net income for the year	361	18,973	13,466	20,162	22,075	34,090
Earnings per common share for the year attributable to equity holders of PLDT						

Basic	1.66	87.28	61.61	92.33	101.85	157.51
Diluted	1.66	87.28	61.61	92.33	101.85	157.51
Balance Sheet Data						
Cash and cash equivalents	983	51,654	32,905	38,722	46,455	26,659
Total assets	9,185	482,750	459,444	475,119	455,095	436,295
Net assets	2,220	116,666	111,183	108,537	113,898	134,668
Total long-term debt - net of current portion	2,965	155,835	157,654	151,759	143,982	115,399
Total debt[(2)]	3,354	176,276	172,611	185,032	160,892	130,123
Total liabilities	6,965	366,084	348,261	366,582	341,197	301,627
Total equity attributable to equity holders of PLDT	2,138	112,358	106,842	108,175	113,608	134,364
Weighted average number of common shares for the year (in thousands)	4,111	216,056	216,056	216,056	216,056	216,056
Other Data:						
Depreciation and amortization	899	47,240	51,915	34,455	31,519	31,379
Net cash provided by operating activities	1,163	61,116	56,114	48,976	69,744	66,015
Net cash used in investing activities	(477)	(25,054)	(21,060)	(41,982)	(39,238)	(51,686)
Net cash used in financing activities	(345)	(18,144)	(40,319)	(15,341)	(11,385)	(19,897)
Dividends declared to common shareholders	263	13,828	16,421	22,902	32,841	39,970
Dividends declared per common share	1.22	64.00	76.00	106.00	152.00	185.00

(1) We maintain our accounts in Philippine pesos, the functional and presentation currency under IFRS. For convenience, the Philippine peso financial information as at and for the year ended December 31, 2018, has been converted into U.S. dollars at the exchange rate of Php52.56 to US$1.00, the rate quoted through the Bankers Association of the Philippines, or BAP, as at December 31, 2018. This

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conversion should not be construed as a representation that the Philippine peso amounts represent, or have been or could be converted into, U.S. dollars at that rate or any other rate.

(2) Total debt represents the sum of (i) current portion of long-term debt; (ii) long-term debt – net of current portion.

Capital Stock

The following table summarizes PLDT's capital stock issued and outstanding as at December 31, 2018 and 2017:

	No. of shares		December 31,	
	2018	2017	2018	2017
	(in millions)		(Pesos in millions)	
Non-Voting Preferred Stock				
10% Cumulative Convertible Preferred Stock II and JJ*	—	—	—	—
Series IV Cumulative Non-convertible Redeemable Preferred Stock**	300	300	360	360
Voting Preferred Stock	150	150	150	150
	450	450	510	510
Common Stock	216	216	1,093	1,093
Total	666	666	1,603	1,603

* On June 8, 2015, the Company issued 870 shares of Series JJ 10% Cumulative Convertible Preferred Stock, which are currently outstanding. In April 2011, the Company issued 370 shares of Series II 10% Cumulative Convertible Preferred Stock, all of which were redeemed by May 11, 2016.

** Includes 300,000,000 shares subscribed for Php3,000,000,000, of which Php360,000,000 has been paid.

Dividends Declared

The following table shows the dividends declared to common shareholders from the earnings for the years ended December 31, 2016, 2017 and 2018:

	Date			Amount	
Earnings	Approved	Record	Payable	Per share	Total Declared
				(in Pesos)	(Pesos in millions)
2016	August 2, 2016	August 16, 2016	September 1, 2016	49	10,587
2016	March 7, 2017	March 21, 2017	April 6, 2017	28	6,049
				77	16,636
2017	August 10, 2017	August 25, 2017	September 8, 2017	48	10,371
2017	March 27, 2018	April 13, 2018	April 27, 2018	28	6,050
				76	16,421

2018	August 9, 2018	August 28, 2018	September 11, 2018	36	7,778
2018	March 21, 2019	April 4, 2019	April 23, 2019	36	7,778
				72	15,556

Dividends Paid

The following table shows a summary of dividends paid per share of PLDT's common stock stated in both Philippine peso and U.S. dollars:

	In Philippine Peso	In U.S. Dollars
2014	185.00	4.14
Regular Dividend – April 16, 2014	62.00	1.39
Regular Dividend – September 26, 2014	69.00	1.54
Special Dividend – April 16, 2014	54.00	1.21
2015	152.00	3.35
Regular Dividend – April 16, 2015	61.00	1.37
Regular Dividend – September 25, 2015[(1)]	65.00	1.39
Special Dividend – April 16, 2015	26.00	0.59
2016	106.00	2.29
Regular Dividend – April 1, 2016	57.00	1.24
Regular Dividend – September 1, 2016	49.00	1.05
2017	76.00	1.51
Regular Dividend – April 6, 2017	28.00	0.56
Regular Dividend – September 8, 2017	48.00	0.95
2018	64.00	1.51
Regular Dividend – April 27, 2018	28.00	0.54
Regular Dividend – September 11, 2018	36.00	0.67

(1) Payment was moved to September 28, 2015 in view of Proclamation No. 1128, Series of 2015, dated September 15, 2015 declaring September 25, 2015 as a regular holiday.

Dividends on PLDT's common stock were declared and paid in Philippine pesos. For the convenience of the reader, the Philippine peso dividends have been converted into U.S. dollars based on the Philippine Dealing System Reference Rate on the respective dates of dividend payments from 2014 to 2017, and based on exchange rates quoted through the BAP for 2018 dividend payments. See Note 19 – Equity to the accompanying audited consolidated financial statements in Item 18. "Financial Statements" for further information on our dividend payments.

Capitalization and Indebtedness

Not applicable.

Reasons for the Offer and Use of Proceeds

Not applicable.

Risk Factors

You should carefully consider all of the information in this annual report, including the risks and uncertainties described below. If any of the following risks actually occurs, it could have a material adverse effect on our business, financial condition or results of operations and the trading price of our ADSs could decline and you could lose all or part of your investment.

Risks Relating to Us

If we are not able to adapt to changes and disruptions in technology and by over-the-top, or OTT, services and address changing consumer demand on a timely basis, we may experience a decline in the demand for our services, be unable to implement our business strategy and experience a material adverse effect on our business, results of operations, financial condition and prospects.

The rapid change of technology and proliferation of OTT services (such as Facebook, Skype, Viber, WhatsApp and other similar services) and the ensuing change in customer behavior, have disrupted our traditional businesses. As a result, our traditional revenue sources, such as short messaging service, or SMS, voice and international calling services, have declined, and we expect this trend to continue with the rise in data revenue.

The growing use of mobile data in the Philippines, coupled with the prevalence of OTT services have negatively impacted our domestic calling service in recent years. OTT services continue to increasingly compete with us in voice and data services and continue to affect our business model. We are also facing growing competition from providers offering services using alternative wireless technologies and IP-based networks, including efforts by the Philippine government to roll-out its free WiFi services to selected areas within various municipalities in the country. Moreover, net settlement payments between PLDT and other foreign telecommunications carriers for origination and termination of international call traffic between the Philippines and other countries, which have been our predominant source of foreign currency revenues, have been declining in recent years and have diminished in its contribution to total service revenues.

While the trend of increasing mobile data usage has resulted in, and is expected to continue to have, a positive impact on our data revenues, there is no guarantee that such increase will alleviate the decline in the revenue from our traditional businesses in full. We may not be able to maintain and attract customers more effectively than our competitors. We will also need to invest in new infrastructure, systems and personnel to provide high quality services for increasing mobile data usage. As a result, our capital costs could increase as we phase out outdated and unprofitable technologies and invest in new ones. We may not be able to accurately predict technological trends or the success of new services in the market. In addition, there could be legal or regulatory restraints on our introduction of new services. If our services fail to gain acceptance in the marketplace, or if costs associated with implementation and completion of the introduction of these services materially increase, our ability to retain and attract customers could be adversely affected. We can neither assure you that we would be able to adopt or successfully implement new technologies and services nor assure you that future technological changes will not adversely affect our business, results of operations, financial condition and prospects.

Our failure to keep pace with technological changes and evolving industry standards relating to the emergence of the 5G technology could harm our competitive position or negatively impact our results of operations.

Fifth-generation wireless, or 5G, is the latest iteration of cellular technology, engineered to greatly increase the speed and responsiveness of wireless networks. 5G is characterized by significantly higher speeds and low latency which will enable mobile users to download data at a much faster speed than the technology of previous generations. 5G is also expected to anchor the Internet of Things, or IoT, which will allow users to be connected not only to each other but to their homes, vehicles, public infrastructure, and more.

In order to introduce and implement the 5G technology to our customers, we may need to obtain additional licenses or upgrade our networks. If we are unable to acquire such licenses or upgrade such systems, on reasonable terms or at all, we may not be able to implement the 5G technology in a timely manner or at all, which in turn may negatively impact our ability to draw new customers and/or maintain our existing customer base.

Further, we may need to incur significant capital expenditures to acquire licenses or install infrastructure to enable the 5G technology. As new technologies relating to 5G systems are developed, our equipment and infrastructure may need to be replaced or upgraded or we may need to rebuild our network, in whole or in part.

We are currently deploying 5G pilot programs in anticipation of commercial rollouts in the near future. However, we are dependent on the availability of 5G-capable devices such as handsets and modems before we can roll out commercial services and generate revenues. A delay in the release of reasonably-priced 5G handsets could negatively impact the mass acceptance of 5G services amongst our customers and our ability to monetize these investments, which in turn could adversely affect our growth prospects.

The anticipated entry of a third major telecommunications player and/or increased competition from other telecommunications services providers may reduce our market share and decrease our profit margin, and we cannot assure you that any potential change in the competitive landscape of the telecommunications industry in the Philippines would not have a material adverse effect on our business, results of operations, financial condition and prospects.

Increasing competition among existing telecommunications services providers, as well as competition from new competitors, could materially and adversely affect our business and prospects by, among other factors, forcing us to lower our tariffs, reducing or reversing the growth of our customer base and reducing usage of our services. Competition in the mobile telecommunications industry is particularly intense, with network coverage, quality of service, product offerings, and price dictating subscriber preference, while competition in the fixed line side is relatively more active as well. Vital capacity and coverage expansion may continue to increase our capital expenditures. Recently, the industry went through a period where both mobile operators have grown more aggressive in maintaining and growing market share, especially in light of a maturing market. Our principal mobile competitor, Globe Telecom, Inc., or Globe, has introduced aggressive marketing campaigns and promotions, such as unlimited voice and SMS offers. It has also begun to compete more actively in the fixed line segment, especially with their introduction of a fixed wireless home broadband service which competes directly with our home broadband business.

In 2017, the Philippine government announced its intentions to encourage competition within the telecommunications industry through the introduction of a third major player. As part of this push, the government is proposing and has introduced certain measures that would facilitate and enable the operations of a new player. Some of these are: tower sharing policy, mobile number portability, removal of the mobile interconnect charges, and the lifting of foreign ownership restrictions for telecommunication companies.

In November 2018, the Philippine government, through the Department of Information and Communications Technology, declared as the third telecom player a consortium consisting of Udenna Corporation, Chelsea Logistics Corporation and China Telecom, or the NMP Consortium. The NMP Consortium indicated that they had reached an agreement with Mislatel Company, or Mislatel, for the use of Mislatel's telecommunications franchise. In February 2019, the Senate Committee on Public Services approved the transfer of the controlling interest in Mislatel to the NMP Consortium under certain conditions.

A third major player will likely adversely threaten our market share. Furthermore, we believe that the third player, when it enters the market, may put forth aggressive offers to lure customers away from us and Globe. To maintain our competitive posture, we may need to match those offers and offer other incentives to prevent existing customers from switching. Furthermore, we may need to make additional investments in our network to further improve the customer experience in order to effectively compete with the third telecom player and Globe. A loss of market share and increased costs to maintain our competitive posture will adversely affect our business, financial condition and results of operations.

In addition to the entry of a third major player, we cannot assure you that the number of providers of telecommunications services will not increase in the future or that competition for customers will not cause our mobile and fixed line subscribers to switch to other operators, or otherwise cause us to increase our marketing and capital expenditures, lose customers or reduce our rates, resulting in a reduction in our profitability.

Our ability to compete effectively will depend on, among other things, network coverage, quality of service, price, our development of new and enhanced products and services, the reach and quality of our sales and distribution channels and our capital resources. It will also depend on how successfully we anticipate and respond to various factors affecting our industry, including new technologies and business models, changes in consumer preferences and demand for existing services, demographic trends and economic conditions. If we are not able to respond successfully to these competitive challenges, it could have a material adverse effect on our business, results of operations, financial condition and prospects.

The success of our business depends on our ability to maintain and enhance our brands.

We believe that our reputation and brands in the industry are crucial to the success of our business. To maintain and enhance our reputation and brands, we need to successfully provide the best customer experience so that we not only maintain our current customer base but attract new subscribers as well. If we are not successful in maintaining and improving our brands, our business, financial position, and/or results of operations may be negatively affected.

Our reliance on outsourcing and strategic sourcing arrangements, technology vendor contracts, and other partnerships and/or joint ventures may prevent us from meeting organizational targets or impact our brand image.

We have entered into a number of outsourcing agreements with technology vendors covering key operations in order to improve efficiencies and maximize knowledge transfer. These arrangements may disrupt existing operations and result in resistance among employees. Furthermore, any delays in implementation or failure to bring about the desired results will hamper our ability to meet our medium-term targets.

In particular, as part of our extensive capital expenditures program to overhaul our fixed and wireless networks infrastructure and our IT systems, we have entered into agreements with Amdocs Philippines, Inc., or Amdocs, and Huawei Technologies Co. Ltd., or Huawei, to upgrade and modernize a significant portion of our IT infrastructure. We cannot guarantee that we will be able to accomplish this transformation in a timely fashion, or at all, or in the manner intended. Furthermore, we cannot guarantee that such transformation will not result in service disruptions, network outages or encounter other issues that may detrimentally affect consumer experience. This may adversely affect our business, financial condition and results of operations.

Our business relies heavily as well on third party vendors, some of whom may encounter financial difficulties or consolidate with other vendors. This may result in shrinking the already limited pool of qualified vendors which in turn may materially impact their ability to fulfill their obligations and thereby impact our operations. The limited number of vendors may also result on our dependence on a single vendor to provide critical services.

Our ability to earn revenues could be disrupted if our suppliers are no longer able or willing to provide us with our products due to extenuating territorial circumstances. In the event that either of our potential suppliers cannot or will not provide us with our products, we may be forced to find alternative supplies. We cannot guarantee that we will be able to obtain our products or products of similar quality from alternate suppliers, in part or at all. Failure to obtain alternative sources will disrupt our operations and hinder our ability to generate revenues.

The mobile telecommunications industry in the Philippines may not continue to grow.

The majority of our total revenues are currently derived from the provision of mobile services to customers in the Philippines. As a result, we depend on the continued development and growth of this industry in the Philippines. The mobile penetration rate in the country, however, has already reached approximately 133% as at December 31, 2018, and thus the industry may well be considered mature insofar as services such as SMS and domestic voice are concerned.

Data is emerging as the key driver for revenues. However, further growth of the market depends on many factors beyond our control, including the continued introduction of new and enhanced mobile devices, the price levels of mobile handsets, consumer tastes and preferences, and the amount of disposable income of existing and potential subscribers. Any economic, technological or other developments resulting in a reduction in demand for mobile services or otherwise causing the Philippine mobile telecommunications industry to stop growing or reducing the rate of its growth, could materially harm our business, results of operations, financial condition and prospects.

The licenses, franchises and regulatory approvals, upon which PLDT relies, may be subject to revocation or delay, which could result in the suspension of our services or abandonment of any planned expansions and could thereby have a material adverse effect on our business, results of operations, financial condition and prospects.

Failure to comply with the foreign ownership restrictions

Section 11, Article XII of the 1987 Philippine Constitution provides that no franchise, certificate, or any other form of authorization for the operation of a public utility shall be granted except to citizens of the Philippines or to corporations of associations organized under the laws of the Philippines, at least 60% of whose capital is owned by such citizens. Exceeding the foreign ownership restrictions imposed under the Philippine Constitution may subject the Company to (1) sanctions set out in Section 14 of the Philippine Foreign Investments Act of 1991, as amended, comprising a fine not exceeding (a) the lower of (x) 0.5% of the total paid in capital of the Company and (y) Php5 million, in the case of a corporate entity, (b) Php200,000, in the case of the president of the Company or other responsible officers, and (c) Php100,000, in the case of other natural persons, which we refer to collectively as the Monetary Sanctions, and/or (2) the Philippine government commencing a quo warranto case in the name of the Republic of the Philippines against the Company to revoke the Company's franchise that permits the Company to engage in telecommunications activities.

We believe that as of the date of this report, PLDT is in compliance with the requirements of the Constitution, and this position was supported by the Supreme Court; however, we cannot assure you that subsequent changes in law or additional litigation would not result in a different conclusion. See Item 8. "Financial Information – Legal Proceedings" and Note 26 – Provisions and Contingencies – In the Matter of the Wilson Gamboa Case and Jose M. Roy III Petition to the accompanying audited consolidated financial statements in Item 18. "Financial Statements" for further discussion.

Failure to renew CPCNs

We operate our business under franchises, each of which is subject to amendment, termination or repeal by the Philippine Congress, and to various provisional authorities and CPCNs, which have been granted by the NTC and will expire between now and 2028. Some of our CPCNs and provisional authorities have already expired. Although we have filed applications for extension of these CPCNs and provisional authorities, we cannot assure you that the NTC will grant the applications for renewal. Failure to renew CPCNs can materially and adversely affect our ability to conduct the essential functions of our business, and therefore adversely affect our financial condition and results of operations. See Item 4. "Information on the Company – Licenses and Regulations" for more information.

Failure to comply with R.A. 7925

The Philippine Congress may revoke, or the Solicitor General of the Philippines may file a case against Smart and DMPI to revoke, the franchise of Smart and DMPI for their failure to comply with R.A. 7925, which requires making a public offering of at least 30% of the aggregate common shares of a telecommunications entity with regulated types of services. See Item 4. “Information on the Company – Material Effects of Regulation on our Business” for further discussion.

On May 19, 2017, Republic Act No. 10926 took effect which extended the Legislative Franchise of Smart. The law contains a provision which exempts Smart from the requirement of listing of shares if a grantee is wholly owned by a publicly listed company with at least thirty per centum (30%) of whose authorized capital stock is publicly listed. Thus, Smart is in compliance with RA 7925.

We cannot assure you that any of our franchise, permits or licenses will not be revoked and any such revocation could have a material adverse effect on our business, financial conditions or prospects.

Our business is significantly affected by laws and regulations, including regulations in respect of rates and taxes and laws relating to anti-competitive practices and monopoly.

The NTC regulates the rates we are permitted to charge for services that have not yet been deregulated, such as local exchange services. We cannot assure you that the NTC will not impose additional obligations on us that could lead to the revocation of our licenses if not adhered to and/or to the reduction in our total revenues or profitability. The NTC could adopt changes to the regulations or implement additional guidelines governing our interconnection with other telecommunications companies or the rates and terms upon which we provide services to our customers. The occurrence of any of these changes could materially reduce our revenues and profitability.

The PLDT Group is also subject to a number of national and local taxes. We cannot assure you that the PLDT Group will not be subject to new, increased and/or additional taxes and that the PLDT Group would be able to impose or pass on additional charges or fees on its customers to compensate for the imposition of such taxes or charges, or for the loss of fees and/or charges.

Moreover, we are subject to laws and regulations relating to anti-competitive practices and anti-monopoly. The Philippine Competition Act came into effect on August 8, 2015 and prohibits practices that restrict market competition through anti-competitive agreements and abuse of a dominant position. It also requires parties to provide notification and obtain clearance for certain mergers and acquisitions. The Philippine Competition Act prescribes administrative and criminal penalties for violations of these prohibitions. While our business practices have not in the past been found to have violated any laws and regulations related to anti-competition and anti-monopoly, we cannot assure you that any new or existing governmental regulators will not, in the future, take the position that our business practices to have an anti-competitive effect on the Philippine telecommunications industry, nor can we assure you that such regulators will not take that position that we have violated the relevant laws and regulations relating to anti-competition and anti-monopoly in the future.

In particular, PLDT was engaged in litigation with the Philippine Competition Commission, or the PCC, relating to PLDT's investments in Vega Telecom Inc., or VTI, Bow Arken Holdings Company, or Bow Arken, and Brightshare Holdings, Inc., or Brightshare, or the SMC Transactions. Although the Court of Appeals, or CA, among other things, compelled the PCC to recognize that the SMC Transactions as deemed approved by operation of law, the CA did clarify that the deemed approved status of the SMC Transactions does not, however, remove the power of PCC to conduct post-acquisition review to ensure that no anti-competitive conduct is committed by the parties. Any future expansion in our services, particularly in our mobile services, could subject us to additional conditions in the granting of our provisional authorities by the NTC and to increased regulatory scrutiny, which could harm our reputation and business, and which could have a material adverse effect on our growth and prospects. In addition, the occurrence of any such event could impose substantial costs or cause interruptions or considerable delays in the provision, development or expansion of our services. See Note 10 – Investments in Associates and Joint Ventures – Notice of Transaction filed with the Philippine Competition Commission, or PCC to the accompanying audited consolidated financial statements in Item 18. "Financial Statements" for further discussion.

Changes in regulations or user concerns regarding privacy and protection of user data, or any failure to comply with such laws, could adversely affect our business.

Legislation such as R.A. 10173 (Data Privacy Act of 2012) and its Implementing Rules and Regulations ("Data Privacy Act") aim to protect individual privacy. The rules apply to the processing of personal data in the public and private sectors, as well as to acts done or practices engaged in and outside of the Philippines under certain conditions. From 2018, the National Privacy Commission, or NPC, has gradually shifted its focus from campaigning for Data Privacy Act awareness to compliance checks on entities engaged in personal data processing. Personal data breaches and other controversies relating to the unauthorized processing of personal data both within the Philippines and abroad have also increased public scrutiny on the activities of entities engaged in personal data processing. Provisions in Data Privacy Act on the Rights of Data Subjects[2] and the NTC issuances under MC 05-07-2016 and NTC MC No. 05-06-2007 on the rights of the subscriber on record to their data and Call Data Records highlight PLDT's statutory obligation to be able to furnish complete and correct data to its users upon their request. These developments lead to increased impetus on PLDT not only to ensure compliance with Data Privacy Act and similar laws, rules and regulations but also to meet industry best practices and customer expectations on data protection.

Any failure, or perceived failure, by us to make effective modifications to our policies, or to comply with any privacy, data-retention or data-protection-related laws, regulations, orders or industry self-regulatory principles, including Data Privacy Act, could result in proceedings or actions against us by governmental entities or others, a loss of user confidence, damage to the PLDT brands, and a loss of users or advertising partners, any of which could potentially have an adverse effect on our business.

[2] The Rights of Data Subjects under the Data Privacy Act are as follows: right to be informed whether their personal data is being processed; right to object to the processing of their personal data; right to reasonable access to their personal data; right to rectification of inaccuracy or error; right to erasure or blocking of their personal data; the right to data portability; right to file a complaint; and right to damages due to inaccurate, incomplete, outdated, false, unlawfully obtained or unauthorized use of personal data.

In addition, various federal, state and foreign legislative or regulatory bodies may enact new or additional laws and regulations concerning privacy, data-retention and data-protection issues, including laws or regulations mandating disclosure to domestic or international law enforcement bodies, which could adversely impact our results of operations, businesses, brand or reputation with users. For instance, in May 2018, the General Data Protection Regulation (GDPR) came into force in the European Union and European Economic Area countries. In the United States, there is also increasing clamor for the enactment of a federal privacy law.

The interpretation and application of privacy, data protection and data retention laws and regulations are often uncertain as these are highly dependent on the local context and culture and they can also be impacted by changes in technology. These laws may be interpreted and applied inconsistently from country to country and inconsistently with our current policies and practices, complicating long-range business planning decisions. If privacy, data protection or data retention laws are interpreted and applied in a manner that is inconsistent with our current policies and practices we may be fined or ordered to change our business practices in a manner that adversely impacts our operating results. Complying with these varying international requirements could cause us to incur substantial costs or require us to change our business practices or operating platforms in a manner adverse to our business.

Inadequate handling of confidential information, including personal customer information by our corporate group, contractors and others, may adversely affect our credibility or corporate image.

We possess a substantial amount of personal information of our customers. In the event an information leak occurs, whether at our end or on the part of our contractors and service providers, we might be subjected to penalties under the data privacy law, our credibility and corporate image may be significantly damaged, and we may experience an increase in cancellations of customer contracts and slower increase in additional subscriptions, any of which could have a material adverse effect on our business, results of operations, financial condition and prospects.

Legislation and regulation of online payment systems could create unexpected costs, subject us to enforcement actions for compliance failures, or cause us to change our digital technology platforms or business models.

Regulators have been increasing their focus on online and mobile payment services, and recent regulatory and other developments could reduce the convenience or utility of our payment services for users. Governmental regulation of certain aspects of mobile payments systems under which PLDT operates could result in obligations or restrictions with respect to the types of products that we may offer to consumers, the payment card systems that link to our mobile payments systems, the jurisdictions in which our payment services or apps may be used, and higher costs, such as fees charged by banks to process funds through our mobile payments systems. Such obligations and restrictions could be further increased as more jurisdictions regulate payment systems. Moreover, if this regulation is used to provide resources or preferential treatment or protection to selected payments and processing providers, it could displace us from, or prevent us from entering into, or substantially restrict us from participating in, particular geographies.

Limitations in the amount of frequency spectrum or facilities made available to us could negatively affect our ability to maintain and improve our service quality and level of customer satisfaction, could increase our costs and could reduce our competitiveness.

The available radio frequency spectrum is one of the principal limitations on a wireless network's capacity, and there are limitations in the spectrum and facilities available to us to provide our services. Our future wireless growth will increasingly depend on our ability to offer innovative video products and data services and a wireless network that has sufficient spectrum and capacity to support these innovations. Improvements in our service depend on many factors, including continued access to and deployment of adequate spectrum.

Our competitiveness may decline if we cannot obtain the necessary or optimal allocation of spectrum from the Philippine government. If the Philippine government does not fairly allocate spectrum to wireless providers in general, revoke spectrum previously granted to us, or if we cannot acquire needed spectrum or deploy the services customers desire on a timely basis without burdensome conditions or at adequate cost while maintaining network quality levels, then our ability to attract and retain customers, and therefore maintain and improve our operating margins, could be materially adversely affected.

Other mobile service providers in the world may not adopt or use the technologies and the frequency bands that are compatible with ours, which could affect our ability to sufficiently offer international services.

If a sufficient number of mobile service providers do not adopt the technologies and the frequency bands that are compatible with ours, if mobile service providers switch to other technologies or frequency bands, or if there is a delay in the introduction and expansion of compatible technologies and frequency bands, we may not be able to offer international roaming or other international services as expected, which may adversely affect our business.

We may not be successful in our acquisitions of, and investments in, other companies and businesses, and may therefore be unable to fully implement our business strategy.

As growth slows or reverses in our traditional fixed line and mobile businesses, and as part of our strategy to grow other business segments, we make acquisitions and investments in companies or businesses to enter new businesses or defend our existing markets. The success of our acquisitions and investments depends on a number of factors, such as:

- our ability to identify suitable opportunities for investment or acquisition;

- our ability to reach an acquisition or investment agreement on terms that are satisfactory to us or at all;

- the extent to which we are able to influence or exercise control over the acquired company;

- the compatibility of the economic, business or other strategic objectives and goals of the acquired company with those of the PLDT Group, as well as the ability to execute the identified strategies in order to generate fair returns on the investment; and

- our ability to successfully integrate the acquired company or business with our existing businesses.

Any of our contemplated acquisitions and investments may not be consummated due to reasons or factors beyond our control. Even if any contemplated acquisitions and investments are consummated, we may not be able to realize any or all of the anticipated benefits of such acquisitions and investments and we cannot assure you that the consummation of such acquisitions and investments will not result in losses for a prolonged period of time. Moreover, if we are unsuccessful in our contemplated acquisitions and investments, we may not be able to fully implement our business strategy to maintain or grow certain of our businesses and our results of operations and financial position could be materially and adversely affected.

We are exposed to the fluctuations in the market values of our investments.

Given the nature of our business and our foray into the digital business, we have made investments in various start-up companies. For example, in 2014, we invested in Rocket Internet SE (formerly Rocket Internet AG), or Rocket, to drive the development of online and mobile payment solutions, the fair value of which has declined significantly since our investment. Due to the significant decline in fair value of our investment in Rocket Internet, we recognized a series of impairments that amount to, in the aggregate, Php11,045 million, since then. See Note 11 – Financial Assets at FVPL/Available-for-Sale Financial Investments – Investment of PLDT Online in Rocket Internet to the accompanying audited consolidated financial statements in Item 18. "Financial Statements" for more information. Credit ratings and market values of this investment and similar investments can be negatively impacted by liquidity, credit deterioration or losses, financial results, foreign exchange rates, or other factors. As a result, our investments could decline and result in a material impairment, which could have a material adverse effect on our financial condition and operating results.

If we are unable to install and maintain telecommunications facilities and equipment in a timely manner, we may not be able to maintain our current market share and the quality of our services, which could have a material adverse effect on our results of operations and financial condition.

Our business requires the regular installation of new, and the maintenance of existing, telecommunications transmission and other facilities and equipment, which are being undertaken. The installation and maintenance of these facilities and equipment are subject to a number of risks and uncertainties, such as:

- shortages of equipment, materials and labor;
- delays in issuance of national and local government building permits;
- work stoppages and labor disputes;

- interruptions resulting from man-made events (e.g., sabotage), inclement weather and other natural disasters;
- rapid technological obsolescence;
- inability of vendors to deliver on commitments;
- unforeseen engineering, environmental and geological problems; and
- unanticipated cost increases.

Any of these factors could give rise to delays or cost overruns in the installation of new facilities or equipment or could prevent us from deploying our networks and properly maintaining the equipment used in our networks, and hence could affect our ability to maintain existing services and roll-out new services, for example, which could have a material adverse effect on our results of operations and financial condition.

Actual or perceived health risks or other problems relating to mobile handsets or transmission masts could lead to litigation or decreased mobile communications usage.

The effects of, and any damage caused by, exposure to an electromagnetic field remain the subject of careful evaluations by the international scientific community. We cannot rule out that exposure to electromagnetic fields or other emissions originating from mobile handsets will not be identified as a health risk in the future. Our mobile business may be harmed as a result of any future alleged, or actual, health risk or the perception of any health risk, which could result in a lower number of customers, reduced usage per customer or even potential consumer liability.

Our business relies on secure network infrastructure and computer systems, and any cyber-attacks against them, or the perception of such attacks, may materially adversely affect our operations, financial condition and results of operations.

Our business operations rely on us securely maintaining our network infrastructure and computer systems. A cyber-attack on our systems could cause service disruptions, damage to our systems and infrastructure, including damage to our physical assets, malfunction of our technology or services, accidental and/or deliberate misuse of our systems and other assets, alteration of our technology, publication of our proprietary technologies, methods, processes, business strategies and other confidential information, as well as unauthorized access to confidential information about our customers, including their financial information, any of which may lead to reputational harm, loss of confidence in our brand, litigation, regulatory actions and loss in customers, each of which, individually or in the aggregate may materially adversely affect our business, financial condition and results of operations.

A key development in 2018 was the appointment of a Chief Information Security Officer, or CISO, to oversee the implementation and management of information and cyber security processes, especially regarding compliance with the business directions and applicable local and international laws and regulations. PLDT also established the Cyber Security Operations Group, or CSOG, headed by the CISO, to create, implement and operate the information security management system, or ISMS, framework and to support the review and update the security policy.

In regard to cyber security risks, PLDT is vulnerable to cybersecurity threats such as denial of service, ransomware, malware, identity theft, botnets and phishing, among others. While we have invested in protection technologies that can integrate and enhance our capabilities to fight cybersecurity threats, we cannot assure you that any of such defenses will be effective against or neutralize the effects of any cyber incidents resulting from unintentional cyber security breaches or deliberate attacks on our network infrastructure or computer systems. Similarly, we cannot assure you that our business will not be significantly disrupted in the event of a security breach or attack. If we fail to timely and effectively prevent the occurrence of any new or existing cyber security incidents, or fail to promptly rectify any such incidents, our business could be significantly disrupted, our results of operations could be materially and adversely affected, and the confidence of our stakeholders could be lost.

In 2018, 223 phishing cases against PLDT employees aimed at obtaining unauthorized access to PLDT's systems were reported. This is slightly lower than the 232 reported cases in 2017, but significantly higher than the 92 reported cases in 2016. Phishing is a persistent threat to PLDT and we have intensified the education campaign on our employees against phishing. Despite our efforts to battle phishing, if unauthorized access to our systems occur, we may suffer direct financial losses, liabilities to customers and third parties, governmental fines, financial outlay to introduce or upgrade our systems and train employees, and/or reputational damage, any of which may materially and adversely affect our business, financial position and/or results of operations.

Cable and equipment theft, equipment failures, natural disasters, man-made events, terrorist acts and territorial disputes may materially adversely affect our operations.

Theft of telecommunication cables, major equipment failures or natural disasters, including severe weather, terrorist acts or other similar or related contingencies could adversely affect our wireline and wireless networks, including telephone switching offices, microwave links, third-party-owned local and long-distance networks on which we rely, our cell sites or other equipment, our customer account support and information systems, or employee and business records, and could have a material adverse effect on our operations.

Natural disasters, terrorist acts or acts of war could cause damage to our infrastructure and result in significant disruptions to our operations.

Our business operations are subject to interruption by natural disasters, power outages, terrorist attacks, cyber-attacks and other events beyond our control. Such events could cause significant damage to our infrastructure upon which our business operations rely, resulting in degradation or disruption of service to our customers. While we maintain insurance coverage for some of these events, the potential liabilities associated with these events could exceed the insurance coverage we maintain. Our system redundancy may be ineffective or inadequate, and our disaster recovery planning may be insufficient for all eventualities. These events could also damage the infrastructure of the suppliers that provide us with the equipment and services that we need to operate our business and provide products to our customers. A natural disaster or other event causing significant physical damage could cause us to experience substantial losses resulting in significant recovery time and expenditures to resume operations. In addition, these occurrences could result in lost revenues from business interruption as well as damage to our reputation.

Our businesses require substantial capital investment, which we may not be able to finance.

Our projects under development and the continued maintenance and improvement of our networks and services, including Smart's projects, networks, platforms and services, require substantial ongoing capital investment. Our consolidated capital expenditures totaled Php58,490 million, Php40,299 million and Php42,825 million for the years ended December 31, 2018, 2017 and 2016, respectively. We currently estimate that our consolidated capital expenditures in 2019 will be approximately Php78 billion.

Future strategic initiatives could require us to incur significant additional capital expenditures. We may be required to finance a portion of our future capital expenditures from external financing sources, some of which have not yet been fully arranged. There can be no assurance that financing for new projects will be available on terms acceptable to us, or at all. If we cannot complete our development programs or other capital projects on time due to our failure to obtain the required financing, our growth, results of operations, financial condition and prospects could be materially and adversely affected. Furthermore, if we are unable to monetize our investments and generate the expected revenues, our cashflows and gearing may be negatively impacted.

Our results of operations and our financial position could be materially and adversely affected if the Philippine peso significantly fluctuates against the U.S. dollar.

A substantial portion of our capital expenditures, a portion of our indebtedness and related interest expense and a portion of our operating expenses are denominated in U.S. dollars and other foreign currencies, whereas most of our revenues are denominated in Philippine pesos. See Note 20 – Interest-bearing Financial Liabilities to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

A depreciation of the Philippine peso against the U.S. dollar would increase the amount of our U.S. dollar-denominated debt obligations, capital expenditures, and operating and interest expenses in Philippine peso terms. In the event that the Philippine peso depreciates against the U.S. dollar, we may be unable to generate enough funds through operations and other means to offset the resulting increase in our obligations in Philippine peso terms. Moreover, a depreciation of the Philippine peso against the U.S. dollar may result in our recognition of significant foreign exchange losses, which could materially and adversely affect our results of operations. A depreciation of the Philippine peso could also cause us not to be in compliance with the financial covenants imposed on us by our lenders under certain loan agreements and other indebtedness. Further, fluctuations in the Philippine peso value and of interest rates impact the mark-to-market gains/losses of certain of our financial debt instruments, which were designated as non-hedged items.

The Philippine peso has been subject to significant depreciation in recent years with the Philippine peso depreciated by approximately 28% from a high of Php41.08 for year end 2012 to Php52.56 as at December 31, 2018 and further depreciated to Php52.89 as at March 20, 2019. We cannot assure you that the Philippine peso will not depreciate further and be subject to significant fluctuations going forward, due to a range of factors, including:

- political and economic developments affecting the Philippines, including the level of remittances from overseas Filipino workers;
- global economic and financial trends;
- the volatility of emerging market currencies;
- any interest rate increases by the Federal Reserve Bank of the United States and/or the BSP; and
- higher demand for U.S. dollars by both banks and domestic businesses to service their maturing U.S. dollar obligations or foreign exchange traders including banks covering their short U.S. dollar positions, among others.

Our debt instruments contain restrictive covenants which require us to maintain certain financial tests and our indebtedness could impair our ability to fulfill our financial obligations and service our other debt.

Our existing debt instruments contain covenants which, among other things, require PLDT to maintain certain financial ratios and other financial tests, calculated on the basis of IFRS at relevant measurement dates, principally at the end of each quarter period. For a description of some of these covenants, see Note 20 – Interest-bearing Financial Liabilities to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

Our indebtedness and the requirements and limitations imposed by our debt covenants could have important consequences. For example, we may be required to dedicate a substantial portion of our cash flow to payments on our indebtedness, which could reduce the availability of our cash flow to fund working capital, capital expenditures and other general corporate requirements.

The principal factors that could negatively affect our ability to comply with these financial ratio covenants and other financial tests are depreciation of the Philippine peso relative to the U.S. dollar, poor operating performance of PLDT and its subsidiaries, impairment or similar charges in respect of investments or other long-lived assets that may be recognized by PLDT and its subsidiaries, and increases in our interest expense. Interest expense may increase as a result of various factors including issuance of new debt, the refinancing of lower cost indebtedness by higher cost indebtedness, depreciation of the Philippine peso relative to the U.S. dollar, the lowering of PLDT’s credit ratings or the credit ratings of the Philippines, increase in reference interest rates, and general market conditions. Of our total consolidated debts, approximately 13% and 20% were denominated in U.S. dollars as at December 31, 2018 and 2017, respectively. Considering our consolidated hedges and U.S. dollar cash balances allocated for debt, the unhedged portion of our consolidated debt amounts was approximately 8% as at December 31, 2018 and 2017, therefore, the financial ratio and other tests are expected to be negatively affected by any weakening of the Philippine peso relative to the U.S. dollar.

If we are unable to meet our debt service obligations or comply with our debt covenants, we may need to restructure or refinance our indebtedness, seek additional equity capital or sell assets. An inability to effect these measures successfully could result in a declaration of default and an acceleration of maturities of some or all of our indebtedness, which could have a material adverse effect on our business, results of operations and financial condition.

Our subsidiaries could be limited in their ability to pay dividends to us due to internal cash requirements and their creditors having superior claims over their assets and cash flows, which could materially and adversely affect our financial condition.

A significant part of our total revenues and cash flows from operating activities are derived from our subsidiaries, particularly Smart. Smart has significant internal cash requirements for debt service, capital expenditures and operating expenses and as a result, may be financially unable to pay any dividends to PLDT. Although Smart has been making dividend payments to PLDT regularly since December 2002, there can be no assurance that PLDT will continue to receive these dividends or other distributions, or otherwise be able to derive liquidity from Smart or any other subsidiary or investee in the future.

Creditors of our subsidiaries generally have priority claims over our subsidiaries' assets and cash flows. We and our creditors will effectively be subordinated to the existing and future indebtedness and other liabilities, including trade payables, of our subsidiaries, except that we may be recognized as a creditor with respect to loans we have made to subsidiaries. If we are recognized as a creditor of a subsidiary, our claim will still be subordinated to any indebtedness secured by assets of the subsidiary and any indebtedness of the subsidiary otherwise deemed superior to the indebtedness we hold.

We may have difficulty meeting our debt payment obligations if we do not continue to receive cash dividends from our subsidiaries and our financial condition could be materially and adversely affected as a result.

A significant number of shares of PLDT's voting stock are held by four shareholders, which may not act in the interests of other shareholders or stakeholders in PLDT.

As at January 31, 2019, the First Pacific Group and its Philippine affiliates, NTT Communications and NTT DOCOMO, and JG Summit Holdings, Inc. and its affiliates, or JG Summit Group, collectively, beneficially own approximately 53.9% in PLDT's outstanding common stock (representing 31.8% of our overall voting stock). See Item 7. "Major Shareholders and Related Party Transactions" for further details regarding the shareholdings of NTT Communications and NTT DOCOMO in PLDT, and the rights granted pursuant to the Cooperation Agreement, Strategic Agreement and the Shareholders Agreement.

Additionally, all of PLDT's shares of voting preferred stock, which represent approximately 41% of PLDT's total outstanding shares of voting stock are owned by a single stockholder, BTF Holdings, Inc., or BTFHI.

The FP Parties and/or NTT Communications and/or NTT DOCOMO and/or JG Summit Group and/or BTFHI may exercise their respective voting rights over certain decisions and transactions in a manner that could be contrary to the interests of other shareholders or stakeholders in PLDT.

Failure to maintain effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 could adversely impact investor confidence and the market price of our common shares and ADSs, and have a material adverse effect on our business, our reputation, financial condition and results of operations.

We are required to comply with various Philippine and U.S. laws and regulations on internal control. However, internal control over financial reporting may not prevent or detect misstatements because of its inherent limitations, including the possibility of human error, the circumvention or overriding of controls, or fraud. Therefore, even effective internal control over financial reporting can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. If we fail to maintain the adequacy of our internal control over financial reporting, including our failure to implement required new or improved controls, or if we experience difficulties in their implementation, our business and operating results could be harmed, we could fail to meet our reporting obligations and there could be a material adverse effect on our business, our reputation, financial condition and results of operations, and the market prices of our common shares and ADSs could decline significantly.

We are unionized and are vulnerable to work stoppages, slowdowns or increased labor costs.

As at December 31, 2018, PLDT has three employee unions, representing in the aggregate 5,572, or 32%, of the employees of the PLDT Group. This unionized workforce could result in demands that may increase our operating expenses and adversely affect our profitability. For instance, PLDT experienced significant charges from its manpower rightsizing program in 2018 and 2017, mainly incurred in the fixed-line business. See Note 5 – Income and Expenses – Compensation and Employee Benefits to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”. Each of our different employee groups require separate collective bargaining agreements. If PLDT and any of its unions are unable to reach an agreement on the terms of their collective bargaining agreement or if we were to experience widespread employee dissatisfaction, we could be subject to work slowdowns or stoppages. Any of these events would be disruptive to our operations and could harm our business.

Additionally, on July 3, 2017, PLDT received a Compliance Order from the Department of Labor and Employment of the Philippines, or DOLE, in connection with the non-payment of statutorily required monetary benefits, including the 13th month pay, to certain contractor employees. On July 31, 2018, the Court of Appeals promulgated a decision granting PLDT's prayer for an injunction against the Compliance Order and remanded back to the DOLE for further proceedings the computation of the monetary awards, which in the regularization orders amounted to Php51.8 million. We cannot guarantee that PLDT or its subsidiaries will not be subject to similar proceedings or other labor-related regulatory activities, the results of which may have an adverse reputational and/or financial impact. See Note 26 – Provisions and Contingencies to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

The loss of key personnel or the failure to attract and retain highly qualified personnel could compromise our ability to effectively manage our business and pursue our growth strategy.

Our future performance depends on our ability to attract and retain highly qualified key technical, development, sales, services and management personnel. The loss of key employees could result in significant disruptions to our business, and the integration of replacement personnel could be costly and time consuming, could cause additional disruptions to our business, and could be unsuccessful. We cannot guarantee the continued employment of any of the members of our senior leadership team, who may depart our Company for any number of reasons, such as other business opportunities, differing views on our strategic direction or other personal reasons. Any inability to attract, retain or motivate our personnel could have a material adverse effect on our results of operations and prospects.

Adverse results of any pending or future litigation, internal or external investigations and/or disputes may impact PLDT's cash flows, results of operations and financial condition.

We are currently involved in various legal proceedings. Our estimate of the probable costs for the resolution of these claims have been developed in consultation with our counsel handling the defense in these matters and is based upon our analysis of potential results. Our future financial performance could be materially affected by an adverse outcome or by changes in our estimates or effectiveness of our strategies relating to these proceedings and assessments.

For more information on PLDT's legal proceedings, see Item 8. "Legal Proceedings" and Note 26 – Provisions and Contingencies to the accompanying consolidated financial statements in Item 18. "Financial Statements." While PLDT believes the positions it has taken in these cases are legally valid, the final results of these cases may prove to be different from its expectations. In addition, there is no assurance that PLDT will not be involved in future litigation or other disputes, the results of which may materially and adversely impact its business and financial conditions.

Our financial condition and operating results will be impaired if we experience high fraud rates related to device financing, credit cards, dealers, or subscriptions.

Our operating costs could increase substantially as a result of fraud, including device financing, customer credit card, subscription, or dealer fraud. If our fraud detection strategies and processes are not successful in detecting and controlling fraud, whether directly or by way of the systems, processes, and operations of third parties such as customers, national retailers, dealers, and others, the resulting loss of revenue or increased expenses could have a material adverse effect on our financial condition and operating results.

Risks Relating to the Philippines

PLDT's business may be adversely affected by political or social or economic instability in the Philippines.

The Philippines is subject to political, social and economic volatility that, directly or indirectly, could have a material adverse impact on our ability to sustain our business and growth.

The Philippines, China and several Southeast Asian nations have been engaged in a series of long-standing territorial disputes over certain islands in the West Philippine Sea, also known as the South China Sea. Should these territorial disputes continue or escalate further, the Philippines and its economy may be disrupted and our operations could be adversely affected as a result. In particular, further disputes between the Philippines and China may lead both countries to impose trade restrictions on the other's imports. Any such impact from these disputes could adversely affect the Philippine economy, and materially and adversely affect our business, financial position and financial performance.

We cannot assure you that the political environment in the Philippines will be stable or that the current or any future government will adopt economic policies that are conducive to sustained economic growth or which do not materially and adversely impact the current regulatory environment for the telecommunications and other companies.

If foreign exchange controls were to be imposed, our ability to meet our foreign currency payment obligations could be adversely affected.

The Philippine government has, in the past, instituted restrictions on the conversion of the Philippine peso into foreign currencies and the use of foreign exchange received by Philippine companies to pay foreign currency-denominated obligations. The Monetary Board of the BSP has statutory authority, with the approval of the President of the Philippines, during a foreign exchange crisis or in times of national emergency, to:

- suspend temporarily or restrict sales of foreign exchange;
- require licensing of foreign exchange transactions; or
- require the delivery of foreign exchange to the BSP or its designee banks.

We cannot assure you that foreign exchange controls will not be imposed in the future. If imposed, these restrictions could materially and adversely affect our ability to obtain foreign currency to service our foreign currency obligations.

As a foreign private issuer, we follow certain home country corporate governance practices which may afford less protection to holders of our ADSs.

As a foreign private issuer incorporated in the Philippines and listed on the PSE, we are permitted under applicable NYSE rules to follow certain home country corporate governance practices. The corporate governance practice and requirements in the Philippines do not require us to have a majority of the members of our board of directors to be independent, and do not require regularly scheduled executive sessions of non-management directors or regularly scheduled executive sessions where only independent directors are present. Further, the criteria for independence of directors and audit committee members applicable in the Philippines differ from those applicable under the NYSE rules. These Philippine home country corporate governance practices may afford less protection to holders of our ADSs.

The credit ratings of the Philippines may restrict the access to capital of Philippine companies, including PLDT.

Historically, the Philippines' sovereign debt has been rated non-investment grade by international credit rating agencies. In December 2018, the Philippines' long-term foreign currency-denominated debt was affirmed by Fitch Ratings, or Fitch, as investment-grade with a rating of BBB with a stable outlook, and Standard and Poor's, or S&P, and Moody's Investor Service, or Moody's, affirmed the Philippines' long-term foreign currency-denominated debt to the investment-grade rating of BBB+ and Baa2, respectively, with a stable outlook. Though investment grade, the relatively low sovereign rating of the Philippine Government will directly and adversely affect companies domiciled in the Philippines as international credit rating agencies issue credit ratings by reference to that of the sovereign. No assurance can be given that Fitch, Moody's, S&P, or any other international credit rating agency will not downgrade the credit ratings of the Philippine Government in the future and, therefore, Philippine companies, including PLDT. Any such downgrade could have a material adverse impact on the liquidity in the Philippine financial markets, the ability of the Philippine Government and Philippine companies, including PLDT, to raise additional financing, and the interest rates and other commercial terms at which such additional financing is available.

Item 4. Information on the Company

Overview

We are one of the leading telecommunications service providers in the fixed line, wireless and broadband markets in the Philippines, in terms of both subscribers and revenues. Through our three principal business segments (Wireless, Fixed Line and Others), we offer a large and diverse range of telecommunications services across the Philippines' most extensive fiber optic backbone and wireless and fixed line networks.

Our common shares are listed and traded on the PSE and our ADSs are listed and traded on the NYSE in the United States.

We had a market capitalization of approximately Php291,675 million, or US$5,399 million, as at December 31, 2018, representing one of the largest market capitalizations among Philippine-listed companies. We had total revenues of Php164,752 million, or US$3,135 million, and net income attributable to equity holders of PLDT of Php18,916 million, or US$360 million, for the year ended December 31, 2018.

Historical Background and Development

PLDT was incorporated under the old Corporation Law of the Philippines (Act 1459, as amended) on November 28, 1928 as Philippine Long Distance Telephone Company, following the merger of four telephone companies under common U.S. ownership. Under its Amended Articles of Incorporation, PLDT's corporate term is currently limited through 2028.

PLDT's original franchise was granted in 1928 and was last amended in 1991, extending its effectiveness until 2028 and broadening PLDT's franchise to permit PLDT to provide virtually every type of telecommunications service. PLDT's franchise covers the business of providing basic and enhanced telecommunications services in and between the provinces, cities and municipalities in the Philippines and between the Philippines and other countries and territories including mobile, wired or wireless telecommunications systems; fiber optics; multi-channel transmission distribution systems and their VAS (including but not limited to transmission of voice, data, facsimile, control signals, audio and video); information services bureau and all other telecommunications systems technologies presently available or that can be made available through technical advances or innovations in the future. Our subsidiaries, including Smart and DMPI, also maintain their own franchises with a different range of services and periods of legal effectiveness for their licenses.

Our principal executive offices are located at the Ramon Cojuangco Building, Makati Avenue, Makati City, Philippines and our telephone number is +(632) 816-8556. Our website address is www.pldt.com. The contents of our website are not a part of this annual report.

Recent Developments

Investment of PGIH in Multisys

On November 8, 2018, the PLDT Board of Directors approved the investment of Php2,150 million in Multisys for a 45.73% equity interest through its wholly-owned subsidiary, PGIH. Multisys is a Philippine software development and IT solutions provider engaged in designing, developing, implementing business system solutions and services covering courseware, webpage development and designing user-defined system programming. PGIH's investment involves the acquisition of new and existing shares.

On December 3, 2018, PGIH completed the closing of its investment in Multisys. PGIH paid Php523 million to the owner of Multisys for the acquisition of existing shares and invested Php800 million into Multisys as a deposit for future subscription pending the approval by the Philippine SEC of the capital increase of Multisys.

On February 1, 2019, the Philippine SEC approved the capital increase of Multisys.

Loss of Control of PCEV over VIH

On October 4, 2018, PLDT, as the ultimate Parent Company of PCEV, VIH, Vision Investment Holdings Pte. Ltd., or Vision, an entity indirectly controlled by KKR & Co., Inc., or KKR, and Cerulean Investment Limited, or Cerulean, an entity indirectly owned and controlled by Tencent Holdings Limited, or Tencent, entered into subscription agreements under which Vision and Cerulean, or the Lead Investors, will separately subscribe to and VIH will allot and issue to the Lead Investors a total of up to US$175 million Convertible Class A Preferred Shares of VIH, with an option for VIH to allot and issue up to US$50 million Convertible Class A Preferred Shares to such follower investors as may be agreed among VIH, PLDT and the Lead Investors, or the upsize option.

On November 26, 2018, PLDT, the International Finance Corporation, or IFC, and IFC Emerging Asia Fund, or IFC EAF, a fund managed by IFC Asset Management Company, entered into subscription agreements under which IFC and IFC EAF, the follower investors, will separately subscribe to and VIH will allot and issue to the follower investors a total of up to US$40 million Convertible Class A Preferred Shares of VIH pursuant to the upsize option.

The foregoing investment in VIH is not subject to the compulsory merger notification regime under the Philippine Competition Act and its implementing rules and regulations. In addition, the Bangko Sentral ng Pilipinas confirmed that it interposes no objection to the investment.

On November 28, 2018, VIH received the US$175 million funding from KKR and Tencent. Subsequently, VIH received the US$40 million funding from IFC and IFC EAF. As a result, PCEV's ownership was reduced to 48.74% and retained only two out of the five board seats in VIH, which resulted to a loss of control.

ePLDT's Additional Investment in ePDS

On March 5, 2018 and August 7, 2018, the Board of Directors of ePLDT approved the additional investment in ePDS amounting to Php134 million and Php66 million, respectively, thereby increasing its equity interest in ePDS from 67% to 95%.

Sale of Rocket Internet Shares

On April 16, 2018, Rocket Internet announced the buyback of up to 15 million Rocket Internet shares through a public share purchase offer, or the Offer, against payment of an offer price in the amount of €24 per share. PLDT Online Investments Pte. Ltd., or PLDT Online, committed to accept the Offer of Rocket Internet for at least 7 million shares, or approximately 67.4% of the total number of shares directly held by PLDT Online.

On May 4, 2018, Rocket Internet accepted the tender of PLDT Online of 7 million shares and paid the total consideration of €163 million, or Php10,059 million, which was settled on May 9, 2018, reducing the equity ownership in Rocket Internet from 6.1% to 2.0%.

On May 23, 2018, Rocket Internet redeemed 10.8 million shares, reducing its share capital of the company to €154 million. As a result of the redemption of shares, PLDT Online's equity ownership in Rocket Internet increased from 2.0% to 2.1%.

On various dates in the third quarter of 2018, PLDT Online sold 0.7 million Rocket Internet shares for an aggregate amount of €22 million, or Php1,346 million, reducing the equity ownership in Rocket Internet from 2.1% to 1.7%.

Conversion of PLDT Online's iflix Convertible Note

On August 4, 2017, PLDT Online subscribed to a convertible note of iflix for US$1.5 million, or Php75 million, in a new funding round led by Hearst Entertainment. The convertible note was paid on August 8, 2017. The note is zero coupon, senior and unsubordinated, non-redeemable, transferable and convertible into Series B Preferred Shares subject to occurrence of a conversion event. iflix will use the funds to invest in its local content strategy and for its regional and international expansion.

On December 15, 2018, the US$1.5 million convertible note held by PLDT Online was converted into 1.0 million Series B Preferred Shares of iflix upon the occurrence of the cut-off date. After the conversion of all outstanding convertible notes, PLDT Online's equity ownership in iflix was reduced from 7.3% to 5.3%.

Investment of PLDT Capital in Phunware

On September 3, 2015, PLDT Capital subscribed to an 8% US$5 million Convertible Promissory Note, or Note, issued by Phunware, a Delaware corporation. Phunware provides an expansive mobile delivery platform that creates, markets, and monetizes mobile application experiences across multiple screens. The US$5 million Note was issued to and paid for by PLDT Capital on September 4, 2015.

On December 18, 2015, PLDT Capital subscribed to Series F Preferred Shares of Phunware for a total consideration of US$3 million. On the same date, the Note and its related interest were converted to additional Phunware Series F Preferred Shares.

On February 27, 2018, Phunware entered into a definitive Agreement and Plan of Merger, or Merger Agreement, with Stellar Acquisition III, Inc., or Stellar, relating to a business combination transaction for an enterprise value of US$301 million, on a cash-free, debt-free basis. Pursuant to the Merger Agreement, the holders of Phunware common stock will be entitled to the right to receive the applicable portion of the merger consideration in the form of Stellar common shares, which are listed on the Nasdaq Stock Market. As a result, the holders of Phunware preferred stock have requested the automatic conversion of all outstanding preferred shares into common shares effective as of immediately prior to the closing of the transaction on a conversion ratio of one common share per one preferred share. In addition to the right to receive Stellar common shares, each holder of Phunware stock is entitled to elect to receive its pro rata share of warrants to purchase Stellar common shares that are held by the affiliate companies of Stellar's co-Chief Executive Officers, or Stellar's Sponsors.

On November 28, 2018, PLDT Capital elected to receive its full pro rata share of the warrants to purchase Stellar common shares held by Stellar's Sponsors.

On December 26, 2018, Phunware announced the consummation of its business combination with Stellar. Stellar, the new Phunware holding company, changed its corporate name to "Phunware, Inc.," or PHUN, and Phunware changed its corporate name to "Phunware OpCo, Inc." Upon closing, PLDT Capital received the PHUN common shares equivalent to its portion of the merger consideration and its full pro rata share of warrants to purchase PHUN common shares.

Investment of PLDT Capital in Matrixx

On December 18, 2015, PLDT Capital entered into a Stock and Warrant Purchase Agreement with Matrixx, a Delaware corporation. Matrixx provides the IT foundation to move to an all-digital service environment with a new real-time technology platform designed to handle the surge in interactions without forcing the compromises of conventional technology. Under the terms of the agreement, PLDT Capital subscribed to convertible Series B Preferred Stock of Matrixx for a total consideration of US$5 million, or Php237 million, and was entitled to purchase additional Series B Preferred Stock upon occurrence of certain conditions on or before March 15, 2016. PLDT Capital did not exercise its right to purchase additional Series B Preferred Stock of Matrixx.

On December 20, 2018, Matrixx entered into a Repurchase Agreement with PLDT Capital to repurchase all of its capital stock held by PLDT Capital including a warrant to purchase capital stock for US$5 million. The transaction closed on the same day.

Investment of iCommerce in Philippines Internet Holding S.à.r.l., or PHIH

On January 20, 2015, PLDT and Rocket Internet entered into a joint venture agreement designed to foster the development of internet-based businesses in the Philippines. PLDT, through its subsidiary, Voyager, and Asia Internet Holding S.à r.l., or AIH, which is 50%-owned by Rocket Internet, were the initial shareholders of the joint venture company PHIH. iCommerce, former subsidiary of Voyager, replaced the latter as shareholder of PHIH on October 14, 2015 and held a 33.33% equity interest in PHIH.

The objective of PHIH was the creation and development of online businesses in the Philippines, the leveraging of local market and business model insights, the facilitation of commercial, strategic and investment partnerships, and the acceleration of the rollout of online startups in the Philippines. In accordance with the underlying agreements, iCommerce paid approximately €7.4 million to PHIH as contribution to capital. Payment of another contribution by iCommerce to the PHIH capital of approximately €2.6 million was requested in 2016 and remained outstanding.

On September 15, 2017, AIH initiated arbitral proceedings via the German Arbitration Institute (DIS) against iCommerce for not settling the €2.6 million contribution. AIH required the payment of €2.6 million plus interest and all costs of the arbitral proceedings.

On December 14, 2017, the management and operations of iCommerce was transferred from VIH to PLDT Online. As a result, VIH ceased to have any direct interest in iCommerce and any indirect interest in PHIH. See Note 2 – Summary of Significant Accounting Policies – Transfer of iCommerce to PLDT Online to the accompanying audited financial statements in Item 18.

On April 19, 2018, iCommerce, together with PLDT and Voyager, executed a Settlement Agreement with AIH to terminate the arbitral proceedings and to settle disputes over rights and obligations in connection with the PHIH agreements. On the same date, iCommerce executed a Share Transfer Agreement with AIH to transfer its PHIH shares to AIH. As a result, iCommerce gave up its 33.33% equity interest for zero value and its claims over the remaining cash of PHIH. iCommerce, AIH and PHIH waived all other claims in connection with PHIH, including any claims against iCommerce.

In separate letters dated April 26, 2018, iCommerce and AIH informed the DIS that both parties have concluded an out-of-court settlement with AIH requesting for the termination of the arbitral proceedings.

On May 7, 2018, iCommerce received the order of the DIS for the termination of the arbitral proceedings and the administrative fees to be paid in relation to the arbitral proceedings. With the foregoing, iCommerce has completed the exit from the joint venture.

Consolidation of the Digital Investments of Smart under PCEV

On February 27, 2018, the Board of Directors of PCEV approved the consolidation of the various digital investments under PCEV.

On March 14, 2018, PCEV entered into a Share Purchase Agreement with Voyager to purchase 53 million ordinary shares of VIH, representing 100% of the issued and outstanding ordinary shares of VIH, for a total consideration of Php465 million. The total consideration was settled on March 15, 2018, while the transfer of shares to PCEV was completed on April 6, 2018.

On March 14, 2018, VIH entered into Share Purchase Agreement with Smart to purchase all of its 170 million common shares of Voyager for a total consideration of Php3,527 million. The total consideration was settled on April 16, 2018.

On April 12, 2018, PCEV entered into a Subscription Agreement with VIH to subscribe to additional 96 million ordinary shares of VIH with a par value of SG$1.00 per ordinary shares, for a total subscription price of SG$96 million, or Php3,806 million, which was settled on April 13, 2018.

Sale of PCEV's Receivables from MPIC

On March 2, 2018, PCEV entered into a Receivables Purchase Agreement, or RPA, with various financial institutions, or the Purchasers, to sell a portion of its receivables from MPIC due in 2019 to 2021 amounting to Php5,550 million for a total consideration of Php4,852 million, which was settled on March 5, 2018. Under the terms of the RPA, the Purchasers will have exclusive ownership of the purchased receivables and all of its rights, title, and interest.

On March 23, 2018, PCEV entered into another RPA with a financial institution to sell a portion of its receivables from MPIC due in 2019 amounting to Php2,230 million for a total consideration of Php2,124 million, which was settled on April 2, 2018.

Agreement between PLDT, Smart and Amdocs

On January 24, 2018, PLDT and Smart entered into a seven-year, US$300 million Managed Transformation Agreement with Amdocs, a leading provider of software and services to communications and media companies, to upgrade PLDT's business IT systems and improve its business processes and services, aimed at enhancing consumer satisfaction, reducing costs and generating increased revenues.

On September 28, 2018, PLDT and Amdocs expanded their strategic partnership under a new six-year service agreement to consolidate, modernize and manage PLDT and Smart's IT Infrastructure, to further enhance customer experience and engagement.

Transfer of Hastings PDRs to PLDT Beneficial Trust Fund

On January 22, 2018, ePLDT's Board of Directors approved the assignment of the Hastings PDRs, representing 70% economic interest in Hastings Holdings, Inc., to the PLDT Beneficial Trust Fund for a total consideration of Php1,664 million. The assignment was completed on February 15, 2018 and ePLDT subsequently ceased to have any economic interest in Hastings.

Divestment of CURE

On October 26, 2011, PLDT received the Order issued by the NTC approving the application jointly filed by PLDT and Digitel for the sale and transfer of approximately 51.6% of the outstanding common stock of Digitel to PLDT. The approval of the application was subject to conditions which included the divestment by PLDT of CURE, in accordance with the Divestment Plan.

In a letter dated July 26, 2012, Smart informed the NTC that it has complied with the terms and conditions of the divestment plan as CURE had rearranged its assets, such that, except for assets necessary to pay off obligations due after June 30, 2012 and certain tax assets, CURE's only remaining assets as at June 30, 2012 were its congressional franchise, the 10MHz of 3G frequency in the 2100 band and related permits.

In a letter dated September 10, 2012, Smart informed the NTC that the minimum Cost Recovery Amount, or CRA, to enable PLDT to recover its investment in CURE includes, among others, the total cost of equity investments in CURE, advances from Smart for operating requirements, advances from stockholders and associated funding costs. In a letter dated January 21, 2013, the NTC referred the computation of the CRA to the Commissioners of the NTC.

In a letter dated March 5, 2018, PLDT informed the NTC that it is waiving its right to recover any and all costs related to the 10MHz of 3G radio frequency previously assigned to CURE. Accordingly, CURE will not claim any cost associated with it in the event of subsequent assignment by the NTC to another qualified telecommunications company. With the foregoing, PLDT is deemed to have fully complied with its obligation to divest from CURE as a condition to the sale and transfer of DTPI shares to PLDT.

For more information relating to the (1) DOLE Compliance Order to PLDT, see Note 26 – Provisions and Contingencies; (2) Petition against the Philippine Competition Commission, see Note 10 – Investment in Associates and Joint Ventures; and (3) Wilson Gamboa and Jose M. Roy III Petition, see Note 26 – Provisions and Contingencies, to the accompanying audited consolidated financial statements Item 18. "Financial Statements".

Business Overview

As at December 31, 2018, our business activities were categorized into three business units: Wireless, Fixed Line and Others.

We monitor the operating results of each business unit separately for purposes of making decisions about resource allocation and performance assessment. See Note 4 – Operating Segment Information to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Wireless

Our wireless business focuses on driving the growth in our data services while managing our legacy business of voice and SMS. We generate data revenues from across all segments of our wireless business, whether mobile internet using smartphones or mobile broadband using pocket wifi and other similar devices.

We provide (a) mobile services, (b) home broadband services, and (c) MVNO and other services, through our wireless business, which contributed approximately 98% and (collectively for home broadband, and MVNO and other services) 2%, respectively, of our wireless service revenues in 2018. Mobile data usage has surged in the past several years while voice and SMS usage has slowed down. Wireless revenues contributed 54% of our consolidated revenues in 2018 as compared to 58% and 63% for the years ended December 31, 2017 and 2016, respectively. Our mobile service revenues, were 90%, 91% and 93% of our total wireless revenues in 2018, 2017 and 2016, respectively.

Our mobile services, which accounted for approximately 98% of our wireless service revenues for the year ended December 31, 2018, are provided through Smart and DMPI with 60,499,017 total subscribers as at December 31, 2018 as compared to 58,293,908 total subscribers as at December 31, 2017, and 62,763,209 total subscribers as at December 31, 2016, representing a combined market share of approximately 45%, 49% and 50% as at December 31, 2018, 2017 and 2016, respectively. Our mobile revenue market share has been eroding due to the combined impact of aggressive price competition and the consequent loss of subscriber market share. This was exacerbated by a larger proportion of legacy revenues from SMS and international voice relative to competition, that offset growth in our mobile data revenues. However, mobile penetration in the Philippines increased to approximately 133% in 2018 from 118% in 2017, although the existence of subscribers owning multiple SIM cards results in this penetration rate being inflated to a certain extent.

As at December 31, 2018, approximately 96% of our mobile subscribers were prepaid service subscribers. The predominance of prepaid service reflects one of the distinguishing characteristics of the Philippine mobile market, allowing us to reduce billing and administrative costs on a per-subscriber basis, as well as to control credit risk.

LTE SIMs and smartphone ownership among our subscribers grew significantly this year, resulting in a substantial increase in our mobile data revenues. As a result, our mobile internet revenues, which are part of our mobile data service revenues, increased by Php13,121 million, or 65%, to Php33,207 million in 2018 from Php20,086 million in 2017. Our mobile internet revenues contributed 87% and 76% of our mobile data service revenues in 2018 and 2017, respectively. Conversely, mobile broadband revenues, which are derived from the use of pocket wifi and other similar mobile broadband devices, decreased by Php1,441 million, or 24%, to Php4,589 million.

Smart’s and DMPI’s wireless networks provide extensive voice and broadband coverage in the Philippines, covering substantially all of major metropolitan areas and most of the other population centers in the Philippines. Our low spectrum band resources (700MHz, 850MHz and 900MHz) are primarily used to provide coverage whilst higher spectrum bands (1800MHz, 2100MHz, 2300MHz and 2600MHz) provide extended coverage and additional capacity. Our communications network supports HSPA+ (for 3G) and LTE-Advanced to provide improved broadband experience for our customers.

Fixed Line

We are the leading provider of fixed line telecommunications services throughout the Philippines, servicing retail, corporate and SME clients. Our fixed line business group offers voice, data and miscellaneous services. We had 2,710,972 fixed line subscribers as at December 31, 2018, an increase of 47,762, or 2%, from 2,663,210 fixed line subscribers as at December 31, 2017, mainly due to higher net additions in 2018 compared with 2017. Revenues from our fixed line business were 52%, 49% and 44% of our consolidated revenues for the years ended December 31, 2018, 2017 and 2016, respectively. International voice revenues have been declining largely due to a drop in call volumes as a result of the availability of alternative calling options and OTT services. An increase in our data service revenues in recent years has mitigated such decline to a certain extent. Recognizing the growth potential of data services, we have put considerable emphasis on the development of new data-capable and IP-based networks.

Our 14,584-kilometer long DFON is complemented by an extensive digital microwave backbone network operated by Smart. This microwave network complements the higher capacity fiber optic networks and is vital in delivering reliable services to areas not covered by fixed terrestrial transport network. Our fixed line network reaches all of the major cities and municipalities in the Philippines, with a concentration in the Metropolitan Manila area. Our network offers the country's most extensive connections to international networks through two international gateway switching exchanges and various regional submarine cable systems in which we have economic interests.

See Item 4. "Information on the Company – Infrastructure – Fixed Line Network Infrastructure" for further information on our fixed line infrastructure.

Others

Our other business in 2018 consisted primarily of VIH and certain subsidiaries, the digital innovations arm of PLDT and Smart, which was deconsolidated from PCEV effective November 30, 2018; PCEV, an investment holding company, which owns an 8.74% effective interest in Meralco as at December 31, 2016 through its 25% equity interest in Beacon, until the full divestment of Beacon shares to MPIC on June 13, 2017. PLDT Global Investments Corporation, or PGIC, which owns an 18.32% economic interest in Beta, an investment holding company of SPi Technologies, Inc. and its subsidiaries, or SPi Group, where we reinvested approximately US$40 million of the proceeds from the sale of BPO in 2013; PLDT Digital Investments Pte. Ltd., or PLDT Digital, an investment holding company, which owns a 1.7% equity interest in Rocket Internet, through its wholly-owned subsidiary, PLDT Online; and PLDT Global Holdings, Inc., or PGIH, an investment holding company, which completed the closing of its investment in Multisys in December 3, 2018.

Capital Expenditures and Divestitures

See Item 5. "Operating and Financial Review and Prospects – Plans" for capital expenditures planned for 2019 and Item 5. "Operating and Financial Review and Prospects – Liquidity and Capital Resources" for information concerning our principal capital expenditures for the years ended December 31, 2016, 2017 and 2018.

On May 30, 2016, the PLDT Board approved the Company's acquisition of 50% equity interest, including outstanding advances and assumed liabilities, in the entities that own the telecommunications business of SMC with Globe acquiring the remaining 50% interest. See Item 10. "Additional Information – Material Contracts" for further information.

On May 30, 2016, PCEV sold common and preferred stock of Beacon, representing approximately 25% equity interest in Beacon to MPIC for a total consideration of Php26,200 million.

On May 19, 2017, AOGL entered into a Share Purchase Agreement with Partners Group, relating to the acquisition of SPi Global for an enterprise value of US$330 million. The transaction was completed on August 25, 2017.

On June 13, 2017, PCEV entered into a Share Purchase Agreement with MPIC to sell its remaining 25% equity interest in Beacon, consisting of 646 million shares of common stock and 458 million shares of preferred stock, for a total consideration of Php21,800 million.

On March 2, 2018, PCEV entered into a RPA with various financial institutions to sell a portion of its receivables from MPIC amounting to Php5,550 million for a total consideration of Php4,852 million. On March 23, 2018, PCEV entered into another RPA with a financial institution to sell a portion of its receivables from MPIC amounting to Php2,230 million for a total consideration of Php2,124 million.

On May 4, 2018, Rocket Internet accepted the tender offer of PLDT Online of 6.8 million shares for a total consideration of €163.2 million, or Php10,059 million, which was settled on May 9, 2018.

On November 28, 2018 and December 10, 2018, VIH received the US$175 million funding from KKR and Tencent, and the US$40 million funding from IFC and IFC EAF, respectively.

See Item 4. "Recent Developments" for further information.

Organization

See Exhibit 8. "List of Subsidiaries" for a listing of PLDT's significant subsidiaries, including name, country of incorporation, proportion of ownership interests and, where different, proportion of voting power held.

Strengths

We believe our business is characterized by the following competitive strengths:

- Recognized Brands. PLDT, Smart, TNT and Sun are widely recognized brand names in the Philippines. We have built the PLDT brand name for 90 years as the leading telecommunications provider in the Philippines. Smart is recognized in the Philippines as an innovative provider of high-quality mobile services. The TNT brand, which is provided using Smart's network, has also gained significant recognition as a price-competitive brand. Since its launch in 2003, Sun has built considerable brand equity as a provider of "unlimited" services. Having a range of strong and recognizable brands allows us to offer to various market segments differentiated products and services that suit customers' budgets and usage preferences.

- Leading Market Shares. We have maintained our position as a market leader in fixed line and broadband markets in the Philippines in terms of both subscribers and revenues.

- Diversified Revenue Sources. We derive our revenues from two of our business segments, namely, Wireless and Fixed Line. Revenue sources of our wireless business include mobile (voice, SMS, mobile data, and inbound roaming and other mobile services), home broadband, and MVNO and other services. The revenues from data services, particularly mobile internet services, have been increasing over the past several years but were offset by the continued decline of mobile voice and SMS revenues. Our fixed line business derives service revenues from voice (local exchange, international and domestic services), data and miscellaneous services. The revenue contributions from our home broadband, corporate data and leased lines, and ICT services compensated for the declining revenues from international and domestic fixed line services due to pressures on traditional fixed line voice revenues as a result of the popularity of OTT service providers.

- Superior Integrated Network. With the most extensive telecommunications networks in the Philippines, we are able to offer a wide array of communications services. Part of our network transformation program included the continued upgrade of our fixed line network to an all IP-based NGN, the build-out of our transmission and FTTH network, the investment in increased international bandwidth capacity, and the expansion of our 3G, 4G LTE and wireless broadband networks in order to enhance our data and broadband capabilities. Our network investments include the upgrade of our IT capabilities which are essential in enabling us to offer more relevant services to our customers.

- Innovative Products and Services. VIH, (through its subsidiaries Voyager and PayMaya) is the digital innovations arm of PLDT and Smart. VIH creates and launches platforms, services and solutions for emerging markets in the areas of digital financial services, access including sponsored data, data-in-sachets, digital marketing solutions, and the incubation of other new technologies. Through Voyager and PayMaya, VIH offers various digital financial services and financial technology solutions. VIH was deconsolidated from PCEV effective November 30, 2018.

- Strong Strategic Relationships. We have important strategic relationships with First Pacific, NTT DOCOMO and NTT Communications. We believe the technological support, international experience and management expertise made available to us through these strategic relationships will enable us to enhance our market leadership and provide/cross-sell a wider range of products and services.

Strategy

The key elements of our business strategy are:

- Build on our strong positions in the fixed line and wireless businesses. We plan to continue building on our position as one of the leading fixed line and wireless service providers in the Philippines by continuing to launch new products and services to increase subscriber value and utilization of our existing facilities and equipment at reduced cost, and to increase our subscribers’ use of our network for both voice and data, as well as their reliance on our services.

- Capitalize on our strength as an integrated provider of telecommunications services. We offer the broadest range of telecommunications services among all operators in the Philippines. We plan to capitalize on this position to maximize revenue opportunities by cross-selling our products and services, and by developing convergent products that feature the combined benefits of voice and data, fixed line, wireless, and other products and services, including media content, utilizing our network and business platforms.

- Strengthen our leading position in the data and broadband market. Leveraging on the strengths of our fixed line and wireless businesses, we are committed to further develop our fastest growing business, particularly mobile internet. Consistent with our strategy of introducing innovative products and services using advanced technology, we continue to launch various products and services in the data and broadband market that deliver quality of experience according to different market needs, including data centers and cloud-related services. We will also accelerate the deployment of new base stations to boost quality and coverage, and accommodate technology bands under the co-use arrangements we entered into with BellTel, one of VTI's subsidiaries.

- Provide the customer a superior data experience. We are in the process of executing our digital transformation strategy through our wireless business focusing on: (i) investing in network infrastructure to improve 3G and 4G coverage and capacity, as well as network resilience;
(ii) upgrading service development platforms to improve customers' ease-of-use, billing systems, customer interface; and (iii) expanding our content portfolio to include entertainment, peace-of-mind/convenience, and games, among others.

- Maintain a strong financial position and improve shareholder returns. In 2018, we paid out dividends approximately 60% of our core earnings. We plan to continue utilizing our free cash flows for the payment of cash dividends to common shareholders and investments in new growth areas. As part of our growth strategy, we have made and may continue to make acquisitions and investments in companies or businesses. We will continue to consider value-accretive investments in telecommunications as well as telco-related businesses.

Business

Wireless

We provide mobile, home broadband, and MVNO and other services, through our Wireless business segment.

The following table summarizes key measures of our wireless business as at and for the years ended December 31, 2018, 2017 and 2016:

	December 31,		
	2018	2017	2016
Systemwide mobile subscriber base	60,499,017	58,293,908	62,763,209
Prepaid	58,178,978	55,776,646	59,952,941
Postpaid	2,320,039	2,517,262	2,810,268
Home Broadband subscriber base[1]	11,553	237,354	270,203
Growth rate of mobile subscribers			
Prepaid	4%	(7%)	(8%)
Postpaid	(8%)	(10%)	(21%)
Growth rate of Home Broadband subscribers	(95%)	(12%)	4%

[1] Home Ultera and WiMax businesses were transferred to PLDT beginning 2018.

Mobile Services

We offer mobile communications services all over the country under the brand names Smart, TNT and Sun to focus on the needs of specific segments of the market. With a continuous and in-depth consumer understanding program, each of our brands strive to provide relevant products and cater to the communications, entertainment and services requirements of our target market segments.

In 2018, we clustered programs consistent with our key objectives: (i) reinforcing our LTE network; (ii) migrating subscribers to LTE; and (iii) driving mobile data usage and monetization.

Reinforcing our LTE Network

We strive to provide our customers across the country with a world-class mobile data experience through a superior LTE network in terms of coverage, capacity, quality and internet speeds.

Smart marked a milestone in 2018 as we fulfilled our commitment to the NTC to provide broadband coverage to at least 90 percent of cities and municipalities in the Philippines. Smart made the three-year commitment when the NTC granted the use of frequencies back in 2016.

Smart also continued the roll-out of LTE-Advanced (LTE-A) and carrier aggregation technology, which allows the combination of two or more radio frequency bands in order to deliver much faster data speeds to mobile phone users.

Smart also activated 4x4 Multiple Input, Multiple Output (MIMO) and 256 Quadrature Amplitude Modulation (QAM) technologies in very high data traffic locations within Metro Manila to further boost speeds.

In November 2018, Smart launched the country's first 5G cell sites in the Makati Central Business District with technology partner Huawei, and at the Clark Freeport Zone (CFZ) in Pampanga with technology partner Ericsson. Smart also made the country's first successful video call on a 5G connection between the newly launched Smart 5G cities Makati City and Pampanga.

Migrating Customers to LTE

Leveraging our improved network, we increased efforts to migrate our subscribers to LTE.

In 2018, Smart rolled out an LTE education campaign for Smart, Sun and TNT customers, and urged them to conveniently upgrade to LTE using the Smart LTE-Ready Self-Service Upgrade SIM.

Smart also continued its strategic partnerships with vendors of LTE-capable smartphones, and distribution partners that bundled LTE SIMs with LTE-capable smartphones.

Driving Mobile Data Usage and Monetization

To suit the demands of our varying consumer segments, we introduced new data offers aimed at introducing customers to the many benefits of mobile internet, and stimulating their data usage.

Smart Prepaid

In April 2018, Smart Prepaid partnered with YouTube to launch Free YouTube Every Day promo.

Aimed at introducing more customers to video streaming, Free YouTube Every Day gave prepaid users of Smart, TNT and Sun up to 1 hour of free YouTube streaming daily when they register to select prepaid promos. The promo, which ended in October 2018, ran for six months and grew YouTube traffic in the Smart Network by nearly 15 times among subscribers compared to the start of the promo.

Following the success of Free YouTube Every Day, Smart Prepaid introduced Video Every Day promo in November 2018, this time to give prepaid subscribers of Smart, TNT and Sun an additional 1 hour of streaming on YouTube, iflix, NBA League Pass, iWant, and Cignal Play when they register to select GigaSurf packages.

In December, to mark Smart's 25th anniversary, Smart Prepaid spearheaded the Smart Amazing 25 promo. The company's biggest promo to date, Smart Amazing 25 gave all Smart, TNT and Sun customers a chance to win smartphones, data, MVP Rewards points, and the grand prize of Php25 million cash – every time they registered to select promos or paid their bill in full and on time.

TNT

TNT, Smart's value brand, reinforced its efforts to reposition itself as a data brand. In April 2018, TNT kicked off its Tropa Trip Summer Fest, which gathered subscribers to a day of games and entertainment that highlighted the brand's data offers.

In July 2018, TNT launched a campaign to promote Free YouTube Every Day. The campaign was reinforced by TNT YouTube Breaktime, a series of mall activations held in Manila, Cavite, Pampanga, Nueva Ecija, Bacolod, and Davao. The YouTube promo for TNT subscribers ended last October 31, 2018.

In November 2018, TNT sought to introduce more subscribers to mobile internet with the launch of SurfSaya, of which one variant offers 300MB open access data plus 100MB per day for Facebook and Messenger; unlimited calls to TNT, Smart and Sun; and unlimited texts to all networks, valid for three days for only Php30. The promotion will run until May 2019.

Smart Postpaid

In line with our Wireless business segment's strategy to drive mobile data usage among customers, Smart Postpaid launched GigaX Plans in February 2018.

The data-packed plans offer generous open access data, a separate data allocation for video streaming, and a data rollover feature that allowed subscribers of Plan 999 and above to enjoy their unused data from the previous month.

As part of the launch of GigaX Plans, Smart partnered with leading phone manufacturers Samsung, Huawei and Oppo to highlight advanced devices. The new GigaX plans also provided new subscribers as much as two times more data during the first six months.

Moreover, Smart Postpaid sustained its device amortization model, which gave subscribers the flexibility to choose and bundle any device with their line-only plans for a fixed cost each month. With this, Smart Postpaid continued to bring in the latest and highly-anticipated flagship devices from Samsung, Huawei, and Apple with aggressive acquisition and re-contracting campaigns.

As additional perk to subscribers, Smart expanded its Free YouTube Every Day promo to include postpaid customers, giving them additional 1 hour of free YouTube streaming daily on top of their monthly plan inclusions from June to July 2018.

Smart Postpaid also partnered with content providers so customers may charge their monthly subscriptions to the NBA League Pass and Netflix to their postpaid bill.

Launched in May 2018, Smart Postpaid’s partnership with NBA allows customers to watch live and on-demand NBA games online and via their mobile devices, and access NBA highlights, game recaps, and daily top plays, among other content via the NBA League Pass.

Additionally, Smart and Netflix launched their partnership in December 2018 to give subscribers convenient way to stream Netflix.

Smart Bro

As Smart’s mobile broadband brand, Smart Bro continued its initiatives to encourage more subscribers to adopt LTE-capable devices so they may benefit from faster and more reliable mobile internet connectivity.

Smart Bro drove LTE penetration by providing competitively-priced LTE Pocket WiFi Prepaid Kits as well as Smart Bro Postpaid Plans throughout the year.

In June 2018, Smart Bro offered the iPad 6th Gen (32GB) bundled with an LTE Pocket WiFi with 6GB monthly data allocation.

Smart Bro also pushed its swap program that sought to replace 3G mobile broadband devices with LTE Pocket WiFi units.

Sun

Sun strengthened its efforts to stimulate data usage among subscribers through its best-value mobile internet offers with Sun-to-Sun calls and texts.

In April 2018, Sun promoted the Free YouTube Every Day promo in a campaign that positioned YouTube as a platform for users to develop knowledge and skills. Under the promo, Sun subscribers enjoyed up to one hour of Free YouTube streaming with every registration to select prepaid promos.

In June 2018, Sun Postpaid launched Non-Stop LTE Plans, which feature non-stop access to Facebook, Facebook Messenger, and Google Search; open access data to access other apps, websites, and games; unlimited Sun-to-Sun calls and texts; and inclusions for texts to other networks.

To increase customer access to video content, Sun Postpaid partnered with iflix and iWant to give subscribers free one month access to the streaming services.

In November 2018, following LTE network upgrades across Cebu, Sun introduced the program ‘Para Nimo Cebu’. The program encouraged customers to swap their old Sun 3G SIMs with the new Sun LTE SIMs, and to take advantage of Sulit Surf Plus promos, which come with a complete combination of open access data, unlimited tri-net calls, and unlimited all-net texts.

Rates

Our current policy is to recognize a prepaid subscriber as active only when the subscriber activates and uses the SIM card. Beginning the second quarter of 2017, a prepaid mobile subscriber is considered inactive if the subscriber does not reload within 90 days after the full usage or expiry of the last reload, revised from the previous 120 days.

Smart Prepaid call and text cards and TNT prepaid cards are sold in three different tiers, while Smart eLoad’s over-the-air reloads are available in multiple denominations as well. The stored value of a prepaid card and eLoads remain valid for 365 days regardless of the denomination, pursuant to the MC No. 05-12-2017 issued by NTC and DITC.

Smart also offers fixed rate or “bucket” packages as a means of driving subscriber activations and stimulating usage. These bucket packages, which offer data packages with fixed amount of text messages and call minutes for a limited validity period, have proven to be popular with subscribers.

Smart also offers unlimited text with voice and data allocation under its various brands in order to be competitive. These plans include high data allocation, unlimited text to all networks, and call minutes with monthly service fees. Additional charges at different rates for usage in excess of the allocated amounts, depending on the monthly plan.

Smart subscribers pay an international direct dialing rate, which applies to most destinations, including the United States, Hong Kong, Japan, Singapore, United Kingdom and United Arab Emirates. Smart charges different rates for 29 other destinations. Smart subscribers also have the option of calling at more affordable rates through Smart Sulit IDD load.

International web browsing was also made more affordable and convenient with Roam Surf, whereby subscribers automatically enjoy web browsing abroad for a fixed rate per day, open to both Smart Postpaid and Prepaid subscribers and covering over 120 countries within the Americas, Asia, Africa, Europe, and Oceania. Data allocation may vary depending on country of destination. We also offer Smart Travel WiFi, a broadband device that provides high-speed internet service in over 100 countries, which is powered by virtual SIM technology that enables local connectivity for up to five devices to local networks in Asia and elsewhere in the world.

Another data roaming service of Smart is Roam Chat, which offers Smart Prepaid and Smart Postpaid to use five popular chat messaging apps, Viber, WeChat, Line, Telegram and WhatsApp, while roaming abroad in over 120 countries.

In compliance with Memorandum Circular No. 05-07-2018 issued by the National Telecommunications Commission, or NTC, the interconnection rate for our voice calls was reduced to Php0.50 per minute from Php2.50 per minute, and the rate for SMS was down to Php0.05 per message from Php0.15 per message effective September 1, 2018.

Sales and Distribution

Distributors and Dealers

We sell our mobile services primarily through our regional and key account partners that generally have their own direct sales forces and retail networks. We currently have 19 exclusive regional and 105 exclusive provincial distributors, and 107 key account partners, 25 of which are exclusive. A number of our trade partners are likewise major distributors of smartphones and devices that are retailed in their owned telecommunications outlets. Account managers from our sales force manage the distribution network and regularly update these business partners on upcoming marketing strategies, promotional campaigns and new products. Smart’s over-the-air reloads called Smart eLoad, moved Smart into a new realm of distribution that approximates those of fast-moving consumer good companies. These over-the-air reloads, which were based on the “sachet” marketing concept of consumer goods, required a distribution network that approximates those of fast-moving consumer goods companies. Sun also offers over-the-air reloads through Sun’s Xpress Load. Starting with just 50,000 outlets when it was launched, our distribution network now encompasses approximately 1.4 million retailers with

Smart and Sun combined. These retailers must be affiliated with one of Smart's and Sun's authorized regional and provincial distributors. With the prepaid reloading distribution network now extended to corner store and individual retailers, Smart's prepaid service became more affordable and accessible to subscribers.

Retail Stores

Retail Stores are company owned Smart Stores with 115 branches and Sun Shops with 91 branches that showcase our Company's products and services to customers nationwide. Our frontlines enable unique digital experiences through daily customer interaction. We offer enticing products and services based on the customer needs. We also cater for customer aftersales request and inquiries. Our Stores also accepts payment for bills, postpaid and prepaid sales.

Satellite Branches which has a total of 46 stores nationwide are partner-owned Smart and Sun branded stores operating as auxiliary touchpoints for converged wired and wireless sales, aftersales and bills payment.

In November 2018, we unveiled our PLDT-Smart converged store in Makati CBD. The store is a one-stop digital hub and store for PLDT, Smart, and Cignal products. The store also has a digital self-service counters which allow subscribers to view and print their bills, check account details, request for repairs and other services. The store also features interactive booths that allow guests to browse the internet, play games, watch videos or listen to music inside the store.

Enterprise Business

Enterprise Business is the group responsible in marketing and selling Smart and Sun products and services to Corporate clients. Services offered include Smart and Sun Postpaid and Broadband services with bundled phones, tablets and other routers, Smart Infinity, M2M and IOT solutions and platform solutions such as Messaging Suite and Bizload. Our Enterprise Business Group also partners with software and application vendors in various industry-specific solutions and mobile security.

These services are being sold primarily through PLDT Enterprise team and it's two major groups, Alpha and SME. Alpha is the relationship arm of PLDT Enterprise for the top three thousand corporate clients while SME handles the relationships for the small and medium enterprises. New channels include the Micro SME segment, which sells through the brick and mortar stores and online, and the Enterprise Extension which handles sales to employees of existing Enterprise clients.

Emerging Channels

The Emerging Channels Group leads in identifying and growing new and non-traditional channels. The team aims to ensure that we are equipped to maximize opportunities presented by industry trends and new technologies. We enable the customer to avail of a new service or upgrade their existing subscription. Emerging Channels is composed of Telesales, Online, and Postpaid Field Sales.

Telesales

We reach out to our subscribers to offer the latest promos and services. Our Telesales agents, in partnership with different contact center providers, enable existing subscribers to upgrade their mobile and broadband experience at the comfort of their own home.

Online

Consumers can also enjoy the convenience of availing our service through the Smart Online Store, where they can transact online to choose phones and apply for new postpaid plans, renew an existing plan, buy prepaid SIM and devices, or subscribe for e-load and various add-on promos. We also have My Smart App and Paywall that allows add-on promo availment via load conversion or bill on top.

Postpaid Field Sales

In October 2018, we launched a new channel called Postpaid Field Sales (PFS). PFS is a new group which was built for an outbound sales attack for Postpaid targeting the corporate individual and capable communities. Through the development and growth of this new channel, we would be able to regain the wireless postpaid stronghold. Starting with 52 territories, complemented by distributor partners, PFS has been on the road towards exponentially growing the mobile postpaid business.

Home Broadband Service

HOME Ultera is a fixed wireless broadband service being offered under PLDT's HOME brand. HOME Ultera, powered by LTE technology, is specifically designed for the home and offers customized packages.

HOME Ultera and WiMax businesses were transferred to PLDT effective January 1, 2018.

Fixed Line

We provide voice services, including LEC, international and domestic services, data and miscellaneous services under our fixed line business.

We offer postpaid and prepaid fixed line services. Initially intended to be an affordable alternative telephone service for consumers under difficult economic conditions, our prepaid fixed line services came to form an important part of our overall churn and credit risk exposure management strategy.

The following table summarizes key measures of our fixed line services as at and for the years ended December 31, 2018, 2017 and 2016:

	December 31,		
	2018	2017	2016
Systemwide fixed line subscriber base	2,710,972	2,663,210	2,438,473
Postpaid	2,683,037	2,634,157	2,406,881
Prepaid	27,935	29,053	31,592
Growth rate of fixed line subscribers			
Postpaid	2%	9%	6%
Prepaid	(4%)	(8%)	(6%)

Number of fixed line employees	8,772	6,832	7,205
Number of local exchange line subscribers per employee	309	390	338

Voice Services

Local Exchange

Our local exchange service, which consists of our basic voice telephony business, is provided primarily through PLDT. We also provide local exchange services through our subsidiaries – PLDT-Philcom, Inc. and subsidiaries, or Philcom Group, Bonifacio Communications Corporation, PLDT Clark Telecom, Inc., or ClarkTel, PLDT Subic Telecom, Inc., or SubicTel, PLDT-Maratel, Inc., or PLDT Maratel and Digitel. Together, these subsidiaries account for approximately 4% of our consolidated fixed line subscribers.

Rates

Basic monthly charges for our local exchange service vary according to the type of customer (business or residential) and location, with charges for urban customers generally being higher than those for rural/provincial customers.

PLDT offers both prepaid and postpaid PLP, where subscribers to the services benefit from a text-capable home phone which allows subscribers to bring the telephone set anywhere within the home zone area.

Currently, the PLP postpaid regular service offers the following two plans: (i) Plan 600 and (ii) Plan 1,000, both of which include unlimited local outgoing calls. Another postpaid service currently offered is the Call All plan wherein PLP is bundled with PLDT fixed line service. Call All can also be availed as an add-on service to a fixed main line.

We also provide three levels of PLP prepaid service, each of which offers a different number of minutes and duration of validity.

International Service

Our international service consists of packet-based voice services and data services that go through our IGFs.

We have been pursuing a number of initiatives to sustain our international service business, including: (i) adjusting slightly our inbound termination rates; (ii) identifying and containing unauthorized traffic termination on our network; (iii) interconnecting popular communication service providers (like Skype and Viber); (iv) introducing a number of marketing initiatives, including implementation of voicemail service and establishment of new voice services (Bucket IDD and Local Number Service); and (v) grow international data sales leveraging on PLDT's sub-sea cable ownership and reach.

In addition, PLDT Global is also working to increase the presence of PLDT in other international markets by offering products and services such as international prepaid calling cards, virtual mobile services, SMS transit and other global bandwidth services. These strategies are intended to help us maximize the use of our existing international facilities, and develop alternative sources of revenue.

The table below sets forth the net settlement amounts for international calls handled by PLDT, by country, for the years ended December 31, 2018, 2017 and 2016:

	Net Settlement		
	2018	2017	2016
	(US Dollars in millions)		
Saudi Arabia	18	36	43
United Arab Emirates	12	10	28
Hong Kong	8	6	7
Canada	4	6	6
Qatar	2	1	1
United States	2	10	15
Japan	2	2	3
Australia	2	1	2
Cyprus	1	1	1
Others	4	11	9
Total	55	84	115

Rates

Rates for outbound international calls are based on type of service, whether operator-assisted or direct-dialed. Our rates are quoted in U.S. dollars and are billed in Philippine pesos. We charge a flat rate per minute to retail customers for direct-dialed calls, applicable to all call destinations at any time on any day of the week.

We also offer international service through PLDT Budget Card, a prepaid call card, which offers low-priced international calling services to 101 calling destinations/countries. The PLDT Budget Card can now be used by Smart, Sun & TNT prepaid and postpaid subscribers in making international calls.

Domestic Service

Our domestic services are provided primarily through PLDT. This service consists of voice services for calls made by our fixed line customers outside of their local service areas within the Philippines and access charges paid to us by other telecommunications carriers for wireless and fixed line calls carried through our backbone network and/or terminating to our fixed line customers.

Mobile substitution, OTT voice call alternatives and the widespread availability and growing popularity of alternative, more economical to free non-voice means of communications, such as e-mails, SMS and social networking sites, have negatively affected our domestic call volumes.

Rates

Rates for domestic calls traditionally were based on type of service, such as whether the call is operator-assisted or direct-dialed. However, PLDT simplified these rates in recent years for calls originating from and terminating to the PLDT fixed line network and for calls terminating to fixed line networks of other LECs. PLDT also simplified its rates for calls terminating to mobile subscribers.

In addition, PLDT bundles the free PLDT-to-PLDT calls in some promotions and product/service launchings in order to stimulate fixed line usage.

Data Services

Our data service revenues include charges for broadband, leased lines, Ethernet-based and IP-based services. These services are used for broadband internet, and domestic and international private data networking communications.

The following table summarizes key measures of our data services as at and for the years ended December 31, 2018, 2017 and 2016:

	December 31,		
	2018	2017	2016
Systemwide home broadband subscriber base	1,812,037	1,713,527	1,450,550
Growth rate of home broadband subscribers	6%	18%	16%

Recognizing the growth potential of data services, and in light of their importance to our business strategy, we have been putting considerable emphasis on these service segments. These segments registered the highest percentage growth in revenues among our fixed line services from 2016 to 2018.

Home Broadband

PLDT HOME remains the nation’s leading home broadband service provider, now serving 1.9 million subscribers nationwide as of December 31, 2018, up from 1.6 million subscribers as at December 31, 2017. PLDT HOME’s broadband data services include Home DSL, Prepaid Home Wifi, and Home Fibr.PLDT HOME provides broadband services through its existing copper network and a nationwide roll-out of its FTTH network. PLDT’s FTTH nationwide network rollout reached over six million homes passed in 2018.

In 2017, PLDT HOME launched its initial set of fiber-powered "PLDT SmartCities," in Toledo City, Cebu, General Santos City, Naga City, South and East Metro Manila, Rockwell Center, and Cavite as the first "PLDT Fibr-powered SmartProvince.". In 2018, we installed fiber optic cables in over 190 new cities and municipalities from Luzon, Visayas and Mindanao.

To complement the build-out of its fiber network, PLDT HOME is also upgrading its current copper network and the roll-out of FTTH. In 2017, PLDT also started the deployment of V-fiber using hybrid fiber technologies, such as vectored very-high-speed DSL or VVDSL, that can deliver fiber speeds through copper lines in residences and offices. PLDT has the country's most extensive transmission and distribution network infrastructure, which now has about 244,000 kilometers of fiber optic cables that transport the growing data traffic of its fixed line and mobile networks.

SmartHome

PLDT HOME is strongly committed to providing digital home lifestyle service packages that bundle high-speed internet with compelling digital services. PLDT HOME has almost half a million existing subscriptions nationwide.

For improved Smart Home connectivity, PLDT Home started to offer Whole Home Wifi, the Philippines' first intelligent Home Wifi technology designed to blanket the entire home with wireless connectivity.

To strengthen its Smart Home suite of connectivity services, PLDT Home launched an exclusive partnership with Google to bring the Google Wifi to the Philippines. Google Wifi is a mesh networking system that aims to eliminate dead zones and provide strong and fast signals for all connected devices at home.

PLDT Home also introduced Telpad, the world's first landline, broadband and tablet service in one. It is a device package that combines a telephone with a tablet that lets user to take and make calls, and browse the internet at the same time.

The Peace of Mind suite of services of PLDT Home features security-enhancing products like the home monitoring system Fam Cam, launched in partnership with network solutions giant D-Link, and the online safety solution Fam Zone which is Australia's leading online parental control platform.

For Entertainment, PLDT HOME introduced Roku-Powered™ TVolution, an all-in-one, plug-and-play device that brings HD TV channels and Subscription Video-on-Demand services.

In 2018, PLDT further strengthened its partnership with these content partners and released the new PLDT Home TVolution Lite powered by Roku®, a streaming device.

PLDT Home also teamed up with global technology leader Samsung to offer new and current PLDT Home Fibr subscribers an exclusive offer that allows them to upgrade their plans with Samsung Smart TV and get free one year iflix subscription.

PLDT Home also partnered with the National Basketball Association, or NBA, for a multiyear venture that made select offerings of the NBA's premium live game subscription service, available to more than 62 million PLDT Home and Smart subscribers in the Philippines.

PLDT Home also offered the Best Buy Bundle - product bundles that enable subscribers to mix and match their unlimited PLDT Home Fibr, Smart mobile, and Cignal Pay TV plans from the brands PLDT Home, Smart, and Cignal TV.

Prepaid Home Wifi

Internet usage at home in the Philippines has been steadily increasing over the past five years. This has been brought about by the increase in internet-capable gadget penetration, driven largely by growing smartphone ownership.

In response, PLDT launched its first ever PLDT Home Prepaid WiFi, an affordable wireless Internet service. PLDT Home Prepaid WiFi is powered by Smart's LTE network.

Corporate Data and ICT

Leased lines and other data services include: (i) Diginet, a domestic private leased line service, specifically supporting Smart's fiber optic and enterprises' leased line network requirements; (ii) IP-VPN, an end-to-end managed IP-based or Layer 3 data networking service that offers secure means to access corporate network resources; (iii) Metro Ethernet, a high-speed, Layer 2, wide area networking service that enables mission-critical data transfers; (iv) Shops.Work, a connectivity solution designed for retailers and franchisers, linking company branches to the head office; and (v) Shops.Work UnPlugged, or SWUP, a wireless VPN service that powers mobile point-of-sale terminals and off-site bank ATMs, as well as other retail outlets located in remote areas.

International leased lines and other data services consist mainly of: (i) iGate, our dedicated internet access service, which provides businesses with a high-speed, managed connectivity to the global internet; (ii) Fibernet, which provides cost-effective, managed international high bandwidth point-to-point private data networking connectivity, through our global points of presence and international alliances, to offshore and outsourcing, banking and finance, and semiconductor industries; and (iii) other international managed data services in partnership with other global service providers, which provide web acceleration, network security, content delivery and other data networking services to multinational companies.

ICT services include data centers, which provide colocation and related connectivity services, managed server hosting, disaster recovery and business continuity services, managed security services, cloud services, big data services and various managed IT solutions.

PLDT Group completed and commercially launched the Philippines' first carrier-grade cloud infrastructure in 2012 and has consistently built partnerships with global Cloud brands and invested in expertise for professional services. The Group offers a full-suite of Cloud Solutions to clients such as Infrastructure-as-a-Service, Software-as-a-Service, Unified Communications-as-a-Service, Contact-Center-as-a-Service, Disaster Recovery-as-a-Service, Coupa Spend Management and the Oracle Cloud Suite.

Complementing these capabilities are ePLDT Group's partnerships with Cisco, Google, IBM-Softlayer, Salesforce.com, SAP, and Microsoft, among others where ePLDT offers professional services beyond infrastructure and license-selling.

Miscellaneous

Miscellaneous services provide facilities management, rental fees, and other services which are conducted through our wholly-owned subsidiary, ePLDT, which, together with its subsidiaries, is a broad-based integrated information and communications technology company.

Others

Digital Platforms and Mobile Financial Services

Voyager Innovations, Inc., or Voyager, focuses on developing customer-centric digital platforms, services and solutions for emerging markets in the areas of financial services. Its payments platforms support thousands of small, medium and big enterprises to accept cashless payments.

PayMaya Philippines, Inc., or PayMaya, the digital payments arm of Voyager, is the leading digital financial services company in the country. It is an e-money issuer, licensed and regulated by the BSP.

PayMaya app and wallet is the leading e-wallet app in the Philippine market, recognized by over 36% of the country's adult population, based on the BSP 2017 National Financial Inclusion Survey. It enables Filipinos to have a financial account in a matter of minutes. PayMaya also powers Smart MasterCard and MVP Rewards.

PayMaya Business provides a suite of digital payments solutions, which allow businesses to receive payments from all cards anytime, anywhere, and on any device. PayMaya Enterprise, meanwhile, offers communities, local government units, and companies with easy disbursement and payment solutions.

Smart Padala is the leading local remittance network in the market with over 26,000 outlets nationwide as of end-December 2018, allowing anyone to remit funds to any mobile number in the Philippines.

Infrastructure

Wireless Network Infrastructure

Mobile

Through Smart and DMPI, we operate a digital GSM network. To meet the growing demand for mobile services, Smart and DMPI have implemented an extensive deployment program for their GSM network covering substantially all of Metropolitan Manila and most of the other population centers in the Philippines.

Smart has been continually extending its 3G footprint. The 3G network provides more capacity, faster data rates and richer data and video applications from a 2G network.

Smart launched its 4G LTE network in August 2012. As at December 31, 2018, Smart has deployed LTE to more than 3,100 sites outside of the key metropolitan areas and our mobile broadband services have covered 90% of all cities and municipalities as committed to the NTC.

In November 2018, Smart Communications and PLDT launched Smart 5G Cities in Pampanga and Makati, which provide a more flexible and powerful platform for more compelling and relevant services.

As at December 31, 2018, Smart has established 15,784 LTE base stations, of which 14,382 are for mobile LTE and 1,402 are for fixed wireless LTE, throughout the Philippines for its LTE network coverage.

Home Broadband

Home Broadband offers fixed wireless broadband internet connectivity to both residential and corporate clients. It also maintains and operates WiFi hotspots installations that serve mobile internet users. Smart also upgraded its 3G network to High-Speed Downlink Packet Access to provide users with high download data rates and an improved broadband experience. Roughly 2,500 of Smart's base stations are now fixed wireless broadband-capable, covering most of the key cities and the other populated centers in the country. These are strategically colocated in Smart's mobile base stations that allow it to efficiently reach many subscribers. For its backbone, it uses the nationwide PLDT and Smart fiber optic and IP backbone that provide substantial bandwidth capacity to utilize and to grow on demand.

Fixed Line Network Infrastructure

Domestic

Our domestic telephone network includes installed telephones and other equipment, such as modems on customers' premises, copper and fiber access lines referred to as "outside plant connecting customers to our exchanges," inter-exchange fiber optics connecting exchanges, and long distance transmission equipment with unmatched capacity and reach. As at December 31, 2018, we have managed to modernize NGN soft switches including international gateways, and are expanding the wireline infrastructure in areas we believe are unserved and underserved areas.

In early 2016, we completed the upgrade of our fixed line facilities to fully IP-based platforms that can deliver voice and data services using a copper or fiber line to the customer with improved quality of service. This migration initiative enables us to fully replace the aging Public Switched Telephone Network, or PSTN, and transfer existing customers to these newer platforms, in an effort to ensure the best service for new customers of voice and data services for their present and future needs with a diversified range of telecommunication services using IP technology.

One of these platforms, FTTH, is an advanced access technology that employs fiber optics all the way up to customer premises. To realize this, we are building a fiber distribution network that will connect homes and other premises to further ensure good internet quality even kilometers away from the serving exchange. This new optical fiber distribution network will eventually replace conventional copper cable. At present, FTTH is potentially capable of delivering up to 2.5 Gigabits per second, or Gbps, download speed and 1Gbps upload speed. Its huge bandwidth enables us to deliver high-bandwidth content and services to our subscribers. These include high definition broadcast television, video-on-demand, and other new services being offered by leading telecommunications companies outside the Philippines. We have been testing FTTH since 2006 and in 2012 began deploying FTTH in high-end and selected upper middle villages in Metropolitan Manila. Initially, we are deploying FTTH in greenfield areas. In the last quarter of 2015, we started deploying it in existing service areas to support the growing demand for higher DSL speed. With the intention to maximize the existing copper cable to deliver high speed broadband, PLDT adopted vectored VDSL technology in vertical (buildings) and horizontal deployments to provide data rates up to 100Mbps. In 2018, we have accelerated the replacement of old ADSL technology with vectored VDSL to further improve the experience of internet users. PLDT has also recently adopted the new capabilities such as G.Fast to deliver even higher speed on copper.

Along with PLDT's pole infrastructures, we have been using the poles of Meralco to deploy the FTTH FOC Network in Metropolitan Manila and in the rest of Meralco's service areas for PLDT's outside plant aerial cable pursuant to lease agreements with Meralco. PLDT is also using the pole infrastructure of other electric utility companies outside Meralco's service area.

Our network includes an internet gateway that is composed of high capacity and high performance routers that serve as our IP network gateway connecting the Philippines to the rest of the world. It provides premium and differentiated internet service to all types of customers ranging from ordinary broadband to high bandwidth internet requirements of corporate customers, knowledge processing solution providers, internet service providers, or ISPs, and even other service providers. Additionally, transparent caching service that is hosted in our domestic data centers provides a faster internet experience for customers. The caching facility includes well known websites such as Netflix, iflix, Google, Facebook and Amazon, among others.

Furthermore, we have several networks that provide domestic and international connectivity for corporate customers and other carriers. These include the Multi-Service Access Platform, or MSAP, based on Synchronous Digital Hierarchy, or SDH, technology and legacy data networks that provide wide range of bandwidth from low speed to high speed capacity up to 1Gbps. These MSAP networks are deployed in strategic areas nationwide. Starting 2015, we employed demarcation CPE that provides a purely IP-based access last mile with speed of up to 10 Gbps to single enterprise customer.

In 2018, we completed Phase 8 deployment of our Carrier Ethernet Network, or CEN, covering more exchanges to serve the growing demand for high bandwidth or up to 10Gbps Ethernet services from the corporate segment and prepare the network for efficient delivery of multimedia services. Carrier Ethernet service is a global standard for secure, scalable, resilient, cost effective, and high bandwidth point-to-point or multi-point connectivity using the simple and ubiquitous Ethernet technology delivered through PLDT's MEF-certified CEN. It supports enterprise requirements such as data storage, headquarter to branch connectivity, headquarter to disaster recovery site connectivity, cloud services and backhaul for mobile/LTE services. PLDT's CEN also serves as aggregation point for NGN and FTTH access nodes.

We likewise have an IP backbone network, or IPBB, composed of high-capacity, high-performance core and edge routers, now with capacities of up to 100Gbps in key exchanges that provide IP connectivity to the different network elements built for PLDT, Smart, subsidiaries and affiliates and corporate customers. It serves as the common and highly resilient IP transport platform for all IP-based services of the PLDT Group.

The PLDT DFON is a nationwide backbone network. It is the first fiber optic backbone network in the country and is used to deliver voice, video, data, and other broadband and multimedia services nationwide. It is comprised of nodes connected by terrestrial and submarine cable links configured in 11 loops and two appendages extending to Palawan and Iligan. The DFON loops provide self-healing and alternative segment route protection for added resiliency against single and multiple fiber breaks along the different segments. The DFON uses the ROADM and 10/40/100G technology which give it greater flexibility for capacity and expansion. The network also includes interconnectivity among the three international cable landing stations of PLDT with its own backhaul capacity and resiliency under the same DFON platform. To date, the network has an aggregated loop capacity of nearly 15.3 Terabits per second. The DFON is complemented by a terrestrial microwave backbone network to deliver services to remote areas unreachable by the fixed terrestrial transport network. Both the DFON and IPBB serve as the common high bandwidth Fiber Optic Cable-based backbone for the PLDT Group. DFON is part of the 243,684 kilometer backbone and intermediate fiber optic cable of the PLDT Group.

Aside from the DFON and IPBB, the PLDT Group has embarked on further synergy initiatives to rationalize and integrate its networks which include, among others, the outside plant, the DSL network, the IP backbone, the transmission systems, the internet gateway, international voice gateway, the PSTN, and NGN. These initiatives are expected to complement and enhance coverage and capacity for all networks in the PLDT Group.

PLDT has also began a transport system transformation program, which includes the transformation of DFON, IP Backbone and Carrier Ethernet network into a new architecture and technology in preparation for the provision of 5G services.

International

PLDT's international network was designed and built to support IP-based international services, including IDD, messaging, international enterprise solutions, and the biggest use of international network resources today, the Internet services of the PLDT Group. The international network also supports in part requirements of the international retail business run by PLDT Global in various locations in Asia, Europe and the United States.

For voice services, PLDT operates two IP voice gateways. As at December 31, 2018, PLDT's international long distance facilities allow direct voice correspondence with 89 foreign carriers from 44 countries and can reach almost a thousand foreign destinations (including fixed and wireless network destination "breakouts", or specific areas within a country) worldwide.

The Company has five international internet gateways to fortify PLDT Group's infrastructure for internet and IP-based services, as well as connections of our fixed and wireless networks to content and internet services available from, and businesses connected to, the global internet. All these gateways employ high capacity, high performance routers, and together with ancillary facilities (such as security against network/service attacks), they provide premium and differentiated internet and/or IP services to all types of customers ranging from ordinary broadband to high bandwidth internet requirements of corporate customers, knowledge processing solution providers, ISPs and even other service providers. PLDT also operates three offshore/forward gateway routers in Hong Kong, Singapore and the United States to support optimized and direct access to content providers and businesses connected to the internet in Asia as well as the continental U.S which we expect to result in faster internet speed. Offshore Gateway routers in Hong Kong and Los Angeles were replaced in the second quarter of 2018 to support 100 Gbps high capacity interface bandwidth and equipped with security module to help prevent cyberattacks originating through such gateways.

To localize international internet content, PLDT employs local transparent caching network, additional content provider partnering and continuous capacity expansion with various popular internet content providers. High demand contents from popular content and CDN providers are available locally and are delivered to PLDT customers.

To provide the international transport backbone for the voice and internet gateways as well as other international data services, PLDT operates the Philippines' most extensive international submarine cable network. To date, PLDT maintains and operates three international cable landing stations in La Union and Batangas for international cables coming from the West Philippine Sea, and in Daet in the east for international cables coming from the Pacific Ocean. These international cable stations are connected by an advance terrestrial fiber mesh network (North, South and East Luzon systems) to our three International Transmission Maintenance Centers.

Connecting the country to the rest of the world via PLDT's international cable stations are submarine cable systems in which PLDT had invested in and/or acquired capacities. The table below shows submarine cable systems, in which PLDT has interests, that terminate in the Philippines or connect onward to other submarine cable systems from the Philippines, and the countries or territories they link:

Cable System	Countries Being Linked
Asia-Pacific Cable Network 2, or APCN2	Philippines, Hong Kong, Japan, Korea, Malaysia, Singapore, China and Taiwan
Southeast Asia-Middle East-Western Europe No. 3 Cable, or SEA-ME-WE-3	Japan, Korea, China, Taiwan, Hong Kong, Macau, Philippines, Vietnam, Brunei, Malaysia, Singapore, Indonesia, Australia, Thailand, Myanmar, Sri Lanka, India, Pakistan, United Arab Emirates, Oman, Djibouti, Saudi Arabia, Egypt, Cyprus, Turkey, Greece, Italy, Morocco, Portugal, France, UK, Belgium and Germany
Fiber-optic Loop Around the Globe, or FLAG, Cable	Japan, Korea, China, Hong Kong, Malaysia, Thailand, India, United Arab Emirates, Saudi Arabia, Egypt, Italy, Spain and UK
Southern Cross Cable	U.S. Mainland, Hawaii, Fiji, Australia and New Zealand
East Asia Crossing, or EAC Cable	Japan, Hong Kong, Korea, Taiwan, Singapore and the Philippines
Pacific Crossing-1, or PC1, Japan-U.S. Cable Network (JUCN), TGN-Pacific, Unity, FASTER	Japan and the U.S.
Asia-America Gateway, or AAG, Cable Network	Malaysia, Singapore, Thailand, Vietnam, Brunei, Hong Kong, Philippines, Guam, Hawaii and the U.S. Mainland
Asia Submarine-cable Express, or ASE	Philippines, Japan, Singapore, Malaysia and Hong Kong
TGN-Intra Asia	Hong Kong and Japan
Asia Africa Europe-1, or AAE-1 Cable	Hong Kong, Vietnam, Cambodia, Thailand, Malaysia, Singapore, Myanmar, India, Pakistan, Oman, UAE, Qatar, Yemen, Djibouti, Saudia, Arabia, Egypt, Greece,

Italy and France

PLDT continues to work with major Asian carriers and OTT players for the implementation of the new Jupiter cable system to support the expected new fixed and mobile services requirements in 2020. Furthermore, PLDT signed MOUs with strategic partners for the planning of new regional cable systems.

The AAG, APCN2 and ASE upgrade projects were completed in 2018. These equipment upgrades provided PLDT with additional capacities using 100 Gbps technologies.

PLDT's international automatic optical transport switching system continues to provide effective redundancy and continuity of service to Hong Kong, Japan, Singapore and the U.S. Mainland for premium enterprise clients. Additional dedicated submarine cable circuits were provisioned to support the growing business requirements.

With regard to service enabling platforms, the Company's ARCHER platform supports voice and data services that are being offered in various parts of the world to serve mainly overseas Filipinos. The platform provides convergent charging, self-care, dealer portal, voucher management, call control, campaign and loyalty capabilities, and facilitates the time to market for new international mainstream products and new digital products.

Interconnection Agreements

Since the issuance of E.O. No. 59 in 1993, which requires non-discriminatory interconnection of Philippine carriers' networks, we have entered into bilateral interconnection arrangements with other Philippine fixed line and mobile carriers. See Item 4. "Information on the Company – Licenses and Regulations – Regulatory Tariffs" for further discussion.

As at December 31, 2018, PLDT has direct interconnection agreements with 89 foreign carriers from 44 countries.

The average international termination rate for calls to PLDT was approximately US$0.084 per minute in 2018. Also, PLDT carries international calls terminating at Smart and Sun networks where they have no direct interconnections.

Through NTC MC 05-07-2018, the NTC has mandated the reduction of the interconnection access charge for SMS services from Php0.15 per SMS to Php0.05 per SMS and the voice service from Php2.50 per minute to Php0.50 per minute, effective August 24, 2018.

However, Public Telecommunications Entities, or PTEs, have bilaterally agreed to implement the revised interconnection access charge effective September 1, 2018, to align with the existing billing and settlement systems cut-off date cycle, which is at the end of the month.

Licenses and Regulations

Licenses

The table below shows the expiry dates of franchises for each company indicated:

Company	Expiry Date of Franchises
PLDT	November 28, 2028
SubicTel	January 22, 2020
Clarktel	June 30, 2024
Philcom	November 2019
Digitel[1]	February 2019
Smart	May 19, 2042
Maratel	March 30, 2020
SBI	July 14, 2022
DMPI	December 11, 2027
CURE[2]	April 24, 2026

(1) Digitel did not seek for an extension of its franchise.

(2) In the case of CURE, PLDT has agreed to divest the CURE spectrum as a part of the NTC decision with respect to PLDT's acquisition of a controlling interest in Digitel.

A franchise holder is required to obtain operating authority from the NTC to provide specific telecommunications services authorized under its franchise. These approvals may take the form of a CPCN, or, while an application for a CPCN is pending, a provisional authority to operate. Provisional authorities are typically granted for a period of 18 months. The Philippine Revised Administrative Code of 1987 provides that if the grantee of a license or permit, such as a CPCN or provisional authority, has made timely and sufficient application for the extension thereof, the existing CPCN or provisional authority will not expire until the application is finally decided upon by the administrative agency concerned.

The following table sets forth the spectrum system service/technology, licensed frequency bands and bandwidth assignments used by Smart, DMPI, SBI and PDSI:

Assignees	Service/Technology	Bands (in MHz)	Bandwidth Assignment
Smart	3G-WCDMA	850	10 MHz x 2
	GSM 900	900	7.5 MHz x 2
	GSM 1800	1800	20 MHz x 2
	3G-WCDMA	2100	15 MHz x 2
DMPI	CDMA 2000	1900	2 channels of 1.25 MHz of bandwidth
	3G-WCDMA	2100	10 MHz x 2
	TD-LTE	2500	15 MHz
	TD-LTE	3400	30 MHz
	GSM 1800	1800	17.5 MHz x 2
SBI	TD-LTE	2500	20 MHz
	TD-LTE	3400	30 MHz
PDSI	TD-LTE	2300	30 MHz

* NTC approved the frequency co-use arrangement between Smart and Globe of various frequencies under LTE 700, GSM/3G 900, GSM/LTE 1800, BWA/LTE 2300, and LTE 2500 assigned to Bell Telecommunications Philippines, Inc.

As a condition of our acquisition of a controlling interest in Digitel, we have agreed with the NTC that we will divest the congressional franchise, spectrum and related permits held by CURE following the migration of CURE's Red Mobile subscriber base to Smart. See Note 2 – Summary of Significant Accounting Policies – Divestment of CURE to the accompanying audited consolidated financial statements in Item 18 "Financial Statements" for further discussion.

Material Effects of Regulation on our Business

Operators of IGFs and mobile telephone operators, pursuant to E.O. No. 109, are required to install a minimum number of local exchange lines. Of these new lines, operators are required to install one rural exchange line for every ten urban exchange lines installed. Smart and PCEV were required to install 700,000 and 400,000 rural lines, respectively, and each received a certificate of compliance from the NTC in 1999.

PLDT, SubicTel, ClarkTel, Philcom, Smart, Digitel, PCEV, SBI and CURE are required to pay various permits, regulation and supervision fees to the NTC. PLDT was previously engaged in disputes with the NTC over some of the assessed fees.

The NTC has issued a number of directives that regulate the manner in which we conduct our business:

- On July 3, 2009, the NTC issued MC No. 03-07-2009, imposing an extension of the expiration of the prepaid loads from two months to various expiration periods ranging from three days to 120 days. Smart and DMPI have been implementing the new validity period of prepaid loads since July 19, 2009.

- On July 7, 2009, the NTC amended its rules on broadcast messaging in MC No. 04-07-2009, which prohibits content and/or information providers from initiating push messages. It further requires that requests for services must be initiated by the subscribers and not forced upon them by the public telecommunications entities and/or content providers and mandates that subscribers be sent a notification when they subscribe for any service and be given an option whether to continue with the availed service.

- On July 23, 2009, the NTC issued MC No. 05-07-2009 mandating mobile operators, including Smart, to charge calls on a maximum six-second per pulse basis instead of the previous per minute basis whether the subscriber is prepaid or postpaid. Smart and CURE have filed petitions with the Supreme Court challenging the implementation of this regulation which remains pending. The six-second per pulse billing scheme is expected to have a negative impact on Smart’s revenue, profit and ARPU as this is expected to decrease the amount of time billed per call as a result of moving to shorter billing intervals of six seconds from the previous one minute.
- On February 18, 2011, the NTC issued MC No. 01-02-2011 which among others required mobile phone providers like Smart and DMPI to make internet access through mobile phones optional; inform their subscribers of charges for internet access through mobile phones; and remind subscribers through SMS if at least 50% of credit limit has already been consumed.

- On October 24, 2011, the NTC issued MC No. 02-10-2011 which mandates that interconnection charge for SMS between two separate networks shall not be higher than Php0.15 per SMS. Accordingly, Smart amended its interconnection agreements with other SMS providers in compliance with the circular. However, the NTC subsequently directed Smart to reduce the retail price of users sending regular SMS to users on other networks from Php1.00 to Php0.80 or less; refund or reimburse its subscribers for the excess Php0.20 per off-net SMS; pay a fine of Php200 per day from December 1, 2011 until the date of compliance with the decision; and submit documents, records and reports pertaining to SMS sent to other networks. Smart challenged this decision and the resolution before the CA. On June 27, 2016, the CA rendered a decision setting aside the Decision dated November 20, 2012 and Resolution dated May 7, 2014 of the NTC for being bereft of legal basis and for having been rendered in utter disregard of the requirements of due process. The CA further permanently enjoined the NTC and any and all of its agents from implementing the MC No. 02-10-2011. The NTC and Intervenor Bayan Muna filed their respective Motions for Reconsideration which were denied by the CA. The NTC and Intervenor Bayan Muna filed separate Petitions for Certiorari with the Supreme Court which remain pending.

- On July 15, 2011, the NTC issued MC No. 7-7-2011 which requires broadband service providers to specify the minimum broadband/internet connection speed and service reliability and the service rates in advertisements, flyers, brochures and service agreements and also sets the minimum service reliability of broadband service to 80%.

- On December 19, 2011, the NTC issued a Decision in NTC ADM Case 2009-048 which lowered the interconnection charge between LEC and CMTS to Php2.50 per minute from Php4.00 per minute for LEC to CMTS and Php3.00 per minute from CMTS to LEC. PLDT and Smart individually filed on February 1, 2012 and January 20, 2012, respectively, separate motions for reconsideration arguing (among other things) that interconnection, including the rates thereof, should be, by law, a product of bilateral negotiations between the parties and that the decision to set lower rates was unconstitutional as an invalid exercise by the NTC of its quasi-legislative powers and violates the constitutional guarantee against non-impairment of contracts. The NTC denied the motion and PLDT and Smart appealed to the CA, reiterating among other things, that the NTC erred in ruling that all LECs are automatically entitled to a cross-subsidy; that the NTC decision violates PLDT and Smart's right to due process; and that the NTC decision violates the constitutional proscription against non-impairment of contracts. On December 12, 2014, the CA granted Smart's petition for review and set aside the NTC decision dated December 19, 2011. PAPTELCO has also filed a motion for reconsideration which was denied by the CA in a Resolution dated September 18, 2015. A Petition for Review was filed by PAPTELCO before the Supreme Court which remains pending.

- On July 8, 2015, the NTC issued MC No. 07-08-2015 defining "broadband" for fixed-line services, fixing data connection speed of at least 256 kilobits per second and mandating that ISPs must specify the average downstream and upstream data rates offered per area. Also, advertisements, flyers and brochures of service offers must specify service rates for broadband or internet connection data plans and, ISPs are allowed to set a cap on the data volume for each service package, provided that subscribers are automatically informed when the data volume consumed has reached specified thresholds.

In order to diversify the ownership base of public utilities, the Public Telecommunications Policy Act R.A. 7925, requires a telecommunications entity with regulated types of services to make a public offering through the stock exchange of its shares representing at least 30% of its aggregate common shares within five years from: (a) the date the law became effective; or (b) the entity's commencement of commercial operations, whichever date is later. PLDT and PCEV have complied with this requirement. On May 19, 2017, R.A. No. 10926 took effect which extended the Legislative Franchise of Smart. The law contains a provision which exempts Smart from the requirement of listing of shares if a grantee is wholly-owned by a publicly-listed company with at least 30% of whose authorized capital stock is publicly listed.

If DMPI is found to be in violation of R.A. 7925, this could result in the revocation of the franchise of DMPI and possible filing of a quo warranto case against DMPI by the Office of the Solicitor General of the Philippines. DMPI takes the position that the provisions of R.A. 7925 are merely directory and the policy underlying the requirement of telecommunications entities to conduct a public offering should be deemed to have been achieved when PLDT acquired a 100% equity interest in DMPI in 2011, since PLDT continues to be a publicly-listed company. However, there can be no assurance that for DMPI, the Philippine Congress will agree with such position.

See Item 3. "Key Information – Risk Factors – Risks Relating to Us – Our business is significantly affected by governmental laws and regulations, including regulations in respect of our franchises, rates and taxes, and laws relating to anti-competitive practices and monopoly" for further discussion.

On April 14, 2009, the NTC released the implementing guidelines on developing reference access offers, which are statements of the prices, terms and conditions under which a telecommunications carrier proposes to provide access to its network or facilities to another such carrier or value-added service provider.

Regulatory Tariffs

In January 2009, the access charge for domestic calls from one fixed line to a fixed line in another network was updated to the range of Php1.00 per minute to Php3.00 per minute while the access charge for calls from fixed line to CMTS was updated to Php4.00 per minute. The access charge for CMTS calls to fixed line network remained at Php3.00 per minute.

PLDT is an Inter-Exchange Carrier providing transit service among CMTS, LEC operators including the PAPTELCO and non-PAPTELCO. Transit is a service being provided by PLDT to connect calls from one carrier to other carriers most of which have no direct interconnection. Since January 2009, PLDT's transit fee remains at Php0.50 per minute for short haul (intra-island), Php1.25 per minute for long-haul (inter-island) and Php1.14 per minute for CMTS calls.

On November 24, 2016, the NTC issued MC No. 09-11-2016 entitled Interconnection Charge for Voice Services mandating that interconnection charge for voice calls between two separate networks shall not be higher than Php2.50 per minute. The MC likewise directed that existing interconnection agreements shall be amended to comply with this MC within 10 days from the effectivity of this MC. The new agreed reduced interconnection charges shall be effective not later than January 1, 2017 to give sufficient time for the necessary adjustment in the operators' respective billing systems.

On July 19, 2018, the NTC issued MC No. 05-07-2018 entitled Interconnection Charge for Short Messaging Services and Voice Service mandating that interconnection access charge for voice service and SMS shall be Php0.50 per minute and Php0.05 per SMS, respectively. Consequently, the NTC issued a Memorandum dated August 6, 2018 directing all PTEs to amend the PTEs interconnection agreements by August 14, 2018 and impose the new interconnection charges not later than August 24, 2018. The PTEs have agreed to implement the new interconnection access charge for SMS services and voice service effective September 1, 2018 to align with the PTEs existing billing and settlement systems cut-off date cycle.

PLDT has continually and actively negotiated with other legitimate Philippine fixed and CMTS carriers for interconnection based on the guidelines being issued by the NTC or any authorized government agency. These carriers include the major fixed and mobile players in the industry with nationwide operations, PAPTELCO and other non-PAPTELCO players, both of which usually operate in selected towns in the countryside. As at December 31, 2018, PAPTELCO has 32 member companies, of which 19 are active, operating 52 main telephone exchanges in the countryside.

Competition

Including us, there are four major LECs, eight major IGF providers and two major mobile operators in the Philippines. Some new entrants into the Philippine telecommunications market have entered into strategic alliances with foreign telecommunications companies, which provide them access to technological and funding support as well as service innovations and marketing strategies.

Mobile Service

Currently, there are only two major mobile operators, namely us and Globe. Mobile market penetration in the Philippines is in excess of 100% based on SIM ownership.

Competition in the mobile telecommunications industry has intensified starting the middle of 2010 with greater availability of unlimited offers from the telecommunications operators resulting in increased volumes of calls and texts but declining yields. Even after PLDT's acquisition of the Digitel Group in the last quarter of 2011, Globe continued to compete aggressively to gain revenue market share, albeit on a more regional/localized basis. Competition also increased in the postpaid space with more aggressive promotions involving greater handset subsidies. The principal bases of competition are price, including handset prices in the case of postpaid plans, quality of service, network reliability, geographic coverage and attractiveness of packaged services, including video content.

In recent years, the prevalence of OTT services, such as social media, instant messaging and internet telephone, also known as VoIP services, has greatly affected our legacy revenues namely voice and SMS. We are also facing growing competition from providers offering services using alternative wireless technologies and IP-based networks, including efforts by the Philippine government to roll-out its free WiFi services to various municipalities in the country.

Voice

Local Exchange

Although the growth of the fixed line voice market has been impacted by higher demand for mobile services, we have sustained our leading position in the fixed line market on account of PLDT's extensive network in key cities nationwide. In most areas, we face one or two competitors. Our principal competitors in the local exchange market, Globe and Bayan Telecommunications, Inc., or Bayan, provide local exchange service through both fixed and fixed wireless landline services. In July 2015, Globe increased its shareholdings in Bayan to 98.57% from 56.87%.

Fixed wireless landline services resemble a mobile phone service but provide the same tariff structure as a fixed line service such as the charging of monthly service fees. Our major competitors, Globe and Bayan, offer services in limited areas of Metropolitan Manila such as Makati, Las Piñas, the Visayas region and selected areas of Southern Luzon such as Cavite and Batangas.

International

There are 10 licensed IGF operators in the country, including us. While we still maintain a leadership position in this highly competitive service segment of the industry, our market share in recent years has declined as a result of: (1) competition from other IGF operators; (2) migration from fixed to direct mobile calling; and (3) the popularity of alternative and cheaper modes of communication such as e-mail, instant messaging, social-networking (such as Facebook, Twitter and Instagram), including “free services” over the internet (such as Skype, Viber, Line, Facebook Messenger, GoogleTalk and WhatsApp, and similar services), and the establishment of virtual private networks for several corporate entities, which have further heightened competition.

With respect to outbound calls from the Philippines, we compete for market share through our local exchange and mobile businesses, which are the origination points of outbound international calls. We also have introduced a number of marketing initiatives to stimulate growth of outbound call volumes, including tariff reductions and volume discounts for large corporate subscribers.

The number of inbound calls into the Philippines has been negatively impacted by the popularity of OTT services due to improved internet access and increased smartphone adoption as a result of intense local competition. We have been pursuing a number of initiatives to mitigate the decline in our inbound telecommunications traffic, including a modest reduction of our termination rates, marketing and promotions to call Philippines, interconnecting with OTT providers like Skype and Viber in order to directly capture their organic traffic to the Philippines and continuously identifying and limiting unauthorized traffic termination. In addition, we have also established presence, through our wholly-owned subsidiary PLDT Global, in key cities overseas to identify and capture Philippine terminating traffic at its source, and develop alternative sources of revenue (e.g. ad-based calling service).

Domestic

Our domestic service business has been negatively affected by the growing number of mobile subscribers in the Philippines, and the widespread availability and growing popularity of alternative economical to free non-voice methods of communication, particularly SMS, e-mail and social media, coupled with the mandate of the government regulatory body. In addition, various ISPs have launched voice services via the internet to their subscribers nationwide.

While domestic call volumes have been declining, we have remained the leading provider of domestic service in the Philippines due to our significant subscriber base and ownership of the Philippines' most extensive transmission network.

From time to time, PLDT launches promotions bundled with our other products to attract new subscribers including free PLDT-to-PLDT NDD service.

Data Services

The market for data services is a growing segment in the Philippine telecommunications industry. This development has been spurred by the significant growth in consumer and retail broadband internet access, enterprise resource planning applications, customer relationship management, knowledge processing solutions, online gaming and other e-services that drive the need for broadband and internet-protocol based solutions both in the Philippines and abroad. Our major competitors in this area are Globe and Bayan. The principal bases of competition in the data services market are coverage, price, content, value for money, bundles or free gifts, customer service and quality of service. PLDT intends to compete in this segment, consistent with its overall strategy to broaden its distribution platform and increase its ability to deliver multimedia content.

Environmental Matters

PLDT reaffirms its commitment to ensuring compliance with environmental regulations as part of its business operation. PLDT appointed, deployed and trained Pollution Control Officers who report on quarterly basis to the Department of Environment and Natural Resources Regional Offices on compliance matters involving our facilities and operations with reference to relevant environmental laws such as the Philippine Clean Air Act, Toxic Substances and Hazardous and Nuclear Waste Control Act, Philippine Clean Water Act, Ecological Solid Waste Management Act and Pollution Control Law, among others. We maintain partnership with contractors to operationalize our regular air emission monitoring of generator sets, waste water quality monitoring, and hazardous wastes collection, hauling, treatment and reporting. Aside from existing facilities with sewage treatment plants, more facilities have undergone assessment and lined up in 2019 for construction of sewage treatment plant to provide permanent and guaranteed measure in sustaining effluent quality conformance to acceptable standards.

The Company has not been subjected to any significant fines or regulatory action involving non-compliance with environmental regulations of the Philippines.

Intellectual Property Rights

We do not own any material intellectual property rights apart from our brand names and logos. We are not dependent on patents, licenses or other intellectual property which are material to our business or results of operations, other than licenses to use the software that accompany most of our equipment purchases and licenses for certain contents used in VAS of our wireless business. See Note 14 – Goodwill and Intangible Assets to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

Properties

PLDT owns three office buildings located in Makati City and owns and operates 291 fixed line exchanges nationwide, of which 48 are located in the Metropolitan Manila area, including Digital Telecommunications Philippines Inc.'s, or DTPI's, three exchanges. The remaining 243 exchanges, including DTPI's 32 exchanges, are located in cities and small municipalities outside the Metropolitan Manila area. We also own radio transmitting and receiving equipment used for international and domestic communications.

As at December 31, 2018, our principal properties, excluding property under construction, consisted of the following, based on net book values:

- 76% consisted of cable, wire and mobile facilities, including our DFON, subscriber cable facilities, inter-office trunking and toll cable facilities and mobile facilities;

- 10% consisted of central office equipment, including IGFs, pure national toll exchanges and combined local and toll exchanges;

- 7% consisted of land and improvements and buildings, which we acquired to house our telecommunications equipment, personnel, inventory and/or fleet;

- 3% consisted of information origination and termination equipment, including pay telephones and radio equipment installed for customers use, and cables and wires installed within customers' premises; and

- 4% consisted of other work equipment.

For more information on these properties, see Note 9 – Property and Equipment to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

These properties are located in areas where our subscribers are being served. In our opinion, these properties are in good condition, except for ordinary wear and tear, and are adequately insured.

The majority of our connecting lines are above or under public streets and properties owned by others. For example, for many years, the PLDT Group has been using the power pole network of Meralco in Metropolitan Manila for PLDT's fixed line aerial cables in this area pursuant to short-term lease agreements with Meralco with typically five-year and more recently one-year terms.

The PLDT Group has various lease contracts for periods ranging from one to ten years covering certain offices, warehouses, cell sites, telecommunications equipment locations and various office equipment. For more information on the obligations relating to these properties and long-term obligations, see Note 20 – Interest-Bearing Financial Liabilities and Note 27 – Financial Assets and Liabilities to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

We expect that in 2019, cash from operating activities should enable us to increase the level of our capital expenditures for the continued expansion and upgrading of our network infrastructure. We expect to make additional investments in our core facilities to leverage existing technologies and increase capacity. Our current estimate for consolidated capital expenditures in 2019 is approximately Php78 billion. See Item 5. "Operating and Financial Review and Prospects – Plans" for further discussion on our capital expenditures.

Item 4A. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements (and the related notes) as at December 31, 2018 and 2017 and for each of the three years ended December 31, 2018, 2017 and 2016 included elsewhere in this report. This discussion contains forward-looking statements that reflect our current views with respect to future events and our future financial performance. These statements involve risks and uncertainties, and our actual results may differ materially from those anticipated in these forward-looking statements as a result of particular factors such as those set forth under "Forward-Looking Statements" and Item 3. "Key Information – Risk Factors" and elsewhere in this report. Our consolidated financial statements, and the financial information discussed below, have been prepared in accordance with IFRS. For convenience, certain Philippine peso financial information in the following discussions have been converted to U.S. dollars at the exchange rate at December 31, 2018 of Php52.56 to US$1.00, as quoted through the BAP.

Overview

We are the largest and most diversified telecommunications company delivering data and multimedia services in the Philippines. We have organized our business into business units based on our products and services and have three reportable operating segments which serve as bases for management's decision to allocate resources and evaluate operating performance: Wireless, Fixed Line and Others. See Note 4 – Operating Segment Information to the accompanying audited consolidated financial statements in Item 18. "Financial Statements" for further information on each of these segments.

Key performance indicators and drivers that our management uses to monitor and direct the operation of our businesses include, among others, the general economic conditions in the Philippines; market trends such as customer demands, behavior and satisfaction parameters; technological developments; network performance (in terms of speed, coverage and capacity); market share and profitability.

In addition, our results of operations and financial position are increasingly affected by fluctuations of the Philippine peso against the U.S. dollar.

Management's Financial Review

As discussed in Item 3. "Key Information – Performance Indicators", we use our Adjusted EBITDA and core income to assess our operating performance; a reconciliation of our consolidated net income to our consolidated Adjusted EBITDA and our consolidated core income for the years ended December 31, 2018, 2017 and 2016 is set forth below.

The following table shows the reconciliation of our consolidated net income to our consolidated Adjusted EBITDA for the years ended December 31, 2018, 2017 and 2016:

	December 31,		
	2018	2017	2016
	(Pesos in millions)		
Consolidated net income	18,973	13,466	20,162
Add (deduct) adjustments:			
Depreciation and amortization	47,240	51,915	34,455
Financing costs – net	7,067	7,370	7,354
Provision for income tax	3,842	1,103	1,909
Noncurrent asset impairment	2,122	3,913	1,074
Amortization of intangible assets	892	835	929
Foreign exchange losses – net	771	411	2,785
Impairment of investments	172	2,562	5,515
Equity share in net earnings of associates and joint ventures	87	(2,906)	(1,181)
Gains on derivative financial instruments – net	(1,086)	(533)	(996)
Interest income	(1,943)	(1,412)	(1,046)
Other income – net	(14,110)	(10,550)	(9,799)
Total adjustments	45,054	52,708	40,999
Consolidated Adjusted EBITDA	64,027	66,174	61,161

The following table shows the reconciliation of our consolidated net income to our consolidated core income for the years ended December 31, 2018, 2017 and 2016:

	December 31,		
	2018	2017	2016
	(Pesos in millions)		
Consolidated net income	18,973	13,466	20,162
Add (deduct) adjustments:			
Depreciation due to shortened life of property and equipmet	4,564	12,816	—
Noncurrent asset impairment	2,122	3,913	1,074
Manpower rightsizing program	1,703	—	—
Loss in fair value of investments	1,154	—	—
Foreign exchange losses – net	771	411	2,785
Investment written-off	362	—	—
Impairment of investments	172	2,562	5,515
Core income adjustment on equity share in net losses of associates and joint ventures	23	60	95
Net income attributable to noncontrolling interests	(57)	(95)	(156)
Other nonrecurring income	(1,018)	—	—
Gains on derivative financial instruments – net, excluding	(1,135)	(724)	(1,539)

hedge costs			
Net tax effect of aforementioned adjustments	(1,779)	(4,741)	(79)
Total adjustments	6,882	14,202	7,695
Consolidated core income	25,855	27,668	27,857

The following table shows the reconciliation of consolidated basic and diluted earnings per share, or EPS, attributable to common equity holders of PLDT to our consolidated basic and diluted core EPS for the years ended December 31, 2018, 2017 and 2016:

	2018 Basic	Diluted	2017 Basic	Diluted	2016 Basic	Diluted
	(in Pesos)					
Consolidated EPS attributable to common equity holders of PLDT	87.28	87.28	61.61	61.61	92.33	92.33
Add (deduct) adjustments:						
Depreciation due to shortened life of property and equipment	14.06	14.06	41.52	41.52	—	—
Noncurrent asset impairment	9.82	9.82	13.12	13.12	4.96	4.96
Manpower rightsizing program	5.52	5.52	—	—	—	—
Loss in fair value of investments	5.34	5.34	—	—	—	—
Foreign exchange losses – net	3.57	3.57	1.74	1.74	10.40	10.40
Investment written-off	1.68	1.68	—	—	—	—
Impairment of investment	0.80	0.80	11.86	11.86	25.52	25.52
Core income adjustment on equity share in net losses of associates and joint ventures	0.11	0.11	0.28	0.28	0.44	0.44
Gains on derivative financial instruments – net, excluding hedge costs	(4.08)	(4.08)	(2.34)	(2.34)	(4.99)	(4.99)
Other nonrecurring income and others	(4.71)	(4.71)	—	—	—	—
Total adjustments	32.11	32.11	66.18	66.18	36.33	36.33
Consolidated core EPS	119.39	119.39	127.79	127.79	128.66	128.66

Critical Accounting Policies

The preparation of our consolidated financial statements in conformity with IFRS requires us to make judgments, estimates and assumptions that affect the reported amounts of our revenues, expenses, assets and liabilities and disclosure of contingent liabilities at the end of each reporting period. The uncertainties inherent in these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amount of the assets or liabilities affected in the future years.

Judgments and estimates are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Judgments, key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next reporting period are consistent with those applied in the most recent annual financial statements, except for those that relate to the adoption of IFRS 9 and IFRS 15. Selected critical judgments and estimates applied in the preparation of the annual consolidated financial statements as discussed below:

Judgments

In the process of applying our accounting policies, management has made judgments, apart from those involving estimations which have the most significant effect on the amounts recognized in our financial statements.

Revenue Recognition – Beginning January 1, 2018

Identifying performance obligations

We identify performance obligations by considering whether the promised goods or services in the contract are distinct goods or services. A good or service is distinct when the customer can benefit from the good or service on its own or together with other resources that are readily available to the customer and our promise to transfer the good or service to the customer is separately identifiable from the other promises in the contract.

Revenues earned from multiple element arrangements offered by our fixed line and wireless businesses are split into separately identifiable performance obligations based on their relative stand-alone selling price in order to reflect the substance of the transaction. The transaction price represents the best evidence of stand-alone selling price for the services we offer since this is the observable price we charge if our services are sold separately. We account for customer contracts in accordance with IFRS 15 and have concluded that the service (telecommunication service) and non-service components (handset or equipment) may be accounted for as separate performance obligations. The handset or equipment is delivered first, followed by the telecommunication service (which is provided over the contract/lock-in period, generally two years). Revenue attributable to the separate performance obligations are based on the allocation of the transaction price relative to the stand-alone selling price.

Installation fees for voice services are considered as a single performance obligation together with monthly service fees, recognized over the customer subscription period since the subscriber cannot benefit from the installation services on its own or together with other resources that are readily available to the subscriber. Installation fees for data services are also not capable of being distinct from the sale of modem since the subscriber obtains benefit from the combined output of the installation services and the device, and is recognized upon delivery of the modem and performance of modem installation.

Principal versus agent consideration

We enter into contracts with its customers involving multiple deliverable arrangements. We determined that we control the goods before they are transferred to customers, and we have the ability to direct the use of the inventory. The following factors indicate that we control the goods before they are being transferred to customers. Therefore, we determined that it is a principal in these contracts.

- We are primarily responsible for fulfilling the promise to provide the specified equipment.
- We bear inventory risk on our inventory before it has been transferred to the customer.
- We have discretion in establishing the prices for the other party's goods or services and, therefore, the benefit that we can receive from those goods or services is not limited. It is incumbent upon us to establish the price of our services to be offered to our subscribers.
- Our consideration in these contracts is the entire consideration billed to the service provider.

Based on the foregoing, we are considered the principal in our contracts with other service providers except for certain VAS arrangements. We have the primary obligation to provide the services to the subscriber.

Timing of revenue recognition

We recognize revenue from contracts with customers over time or at a point in time depending on our evaluation of when the customer obtains control of the promised goods or services and based on the extent of progress towards completion of the performance obligation. For the telecommunication service which is generally provided over the contract period of two years, because control is transferred over time, revenue is recognized monthly as we provide the service. For the handset which is provided at the inception of the contract, because control is transferred at a point in time, revenue is recognized at the time of delivery.

Identifying methods for measuring progress of revenue recognized over time

We determine the appropriate method of measuring progress which is either through the use of input or output methods. Input method recognizes revenue on the basis of the entity's efforts or inputs to the satisfaction of a performance obligation while output method recognizes revenue on the basis of direct measurements of the value to the customer of the goods or services transferred to date.

Revenue from telecommunication services is recognized through the use of input method wherein recognition is over time based on the customer subscription period since the customer simultaneously receives and consumes the benefits as the seller renders the services.

Significant financing component

We concluded that the handset component included in contracts with customers has a significant financing component considering the period between the customer's payment of the price of the handset and time of the transfer of control over the handset, which is more than one year.

In determining the interest to be applied to the amount of consideration, we concluded that the interest rate is the market interest rate adjusted with credit spread to reflect the customer credit risk that is commensurate with the rate that would be reflected in a separate financing transaction between us and our customer at contract inception.

Estimation of stand-alone selling price

We assessed that the service and the handset represent separate performance obligations and thus, the amount of revenues should be recognized based on the allocation of the transaction price to the different performance obligations based on their stand-alone selling prices. The stand-alone selling price is the price at which we sell the good or service separately to a customer. However, if goods or services are not currently offered separately, we use the adjusted market or cost-plus margin method to determine the stand-alone selling price to be used in the revenue allocation.

In terms of allocation of transaction price between performance obligations, we assessed that allocating the transaction price using the stand-alone selling prices of the services and handset will result in more revenue allocated to non-service component as compared to our old practice. The stand-alone selling price is based on the price at which we regularly sell the non-service and service component in a separate transaction.

Financial Instruments – Beginning January 1, 2018

Evaluation of business models in managing financial instruments

We determine our business model at the level that best reflects how we manage groups of financial assets to achieve our business objective. Our business model is not assessed on an instrument-by-instrument basis, but a higher level of aggregated portfolios and is based on observable factors such as:

a. How the performance of the business model and the financial assets held within that business model are evaluated and reported to the entity's key management personnel;

b. The risks that affect the performance of the business model (and the financial assets held within that business model) and, in particular, the way those risks are managed; and

c. The expected frequency, value and timing of sales are also important aspects of our assessment.

The business model assessment is based on reasonably expected scenarios without taking 'worst case' or 'stress case' scenarios into account. If cash flows after initial recognition are realized in a way that is different from our original expectations, we do not change the classification of the remaining financial assets held in that business model, but incorporates such information when assessing newly originated or newly purchased financial assets going forward.

We have determined that for cash and cash equivalents, investment in debt securities and other long-term investments (Note 12 – Debt Instruments at Amortized Cost/Investment in Debt Securities and Other Long-term Investments), and trade receivables, the business model is to collect the contractual cash flows until maturity. For receivables from MPIC, we have determined that its business model is to both collect contractual cash flows and sale of financial assets.

IFRS 9, however, emphasizes that if more than an infrequent number of sales are made out of a portfolio of financial assets carried at amortized cost, the entity should assess whether and how such sales are consistent with the objective of collecting contractual cash flows.

Definition of default and credit-impaired financial assets

We define a financial instrument as in default, which is fully aligned with the definition of credit-impaired, when it meets one or more of the following criteria:

Quantitative criteria

For trade receivables and all other financial assets subject to impairment, default occurs when the receivable becomes 90 days past due, except for trade receivables from Corporate subscribers, which are determined to be in default when the receivables become 120 days past due.

Qualitative criteria

The counterparty meets unlikeliness to pay criteria, which indicates the counterparty is in significant financial difficulty. These are instances where:

a. The counterparty is experiencing financial difficulty or is insolvent;

b. The counterparty is in breach of financial covenant(s);

c. An active market for that financial assets has disappeared because of financial difficulties;

d. Concessions have been granted by the Group, for economic or contractual reasons relating to the counterparty's financial difficulty;

e. It is becoming probable that the counterparty will enter bankruptcy or other financial reorganization; and

f. Financial assets are purchased or originated at a deep discount that reflects the incurred credit losses.

The criteria above have been applied to all financial instruments, except FVPL, held by the Group and are consistent with the definition of default used for internal credit risk management purposes. The default definition has been applied consistently to the ECL models throughout our expected loss calculation.

Significant increase in credit risk

At each reporting date, the Group assesses whether there has been a significant increase in credit risk for financial assets since initial recognition by comparing the risk of default occurring over the expected life between the reporting date and the date of initial recognition. The Group considers reasonable and supportable information that is relevant and available without undue cost or effort for this purpose. This includes quantitative and qualitative information and forward-looking analysis.

An exposure will migrate through the ECL stages as asset quality deteriorates. If, in a subsequent period, asset quality improves and also reverses any previously assessed significant increase in credit risk since origination, then the loss allowance measurement reverts from lifetime ECL to 12-months ECL.

Using our judgment and, where possible, relevant historical experience, we may determine that an exposure has undergone a significant increase in credit risk based on particular qualitative indicators that we consider are indicative of such and whose effect may not otherwise be fully reflected in its quantitative analysis on a timely basis.

As a backstop, we consider that a significant increase in credit risk occurs no later than when an asset is more than 30 days past due. Days past due are determined by counting the number of days since the earliest elapsed due date in respect of which full payment has not been received. Due dates are determined without considering any grace period that might be available to the counterparty.

Exposures that have not deteriorated significantly since origination, or where the deterioration remains within our investment grade criteria, or which are less than 30 days past due, are considered to have a low credit risk. The provision for credit losses for these financial assets is based on a 12-month ECL. The low credit risk exemption has been applied on debt investments that meet the investment grade criteria of the PLDT Group.

Impairment of available-for-sale equity investments – Prior to January 1, 2018

For available-for-sale financial investments, we assess at each reporting date whether there is objective evidence that an investment or a group of investments is impaired.

In the case of equity investments classified as available-for-sale financial investments, objective evidence would include a significant or prolonged decline in the fair value of the investment below its cost. The determination of what is “significant” or “prolonged” requires judgment. We treat “significant” generally as decline of 20% or more below the original cost of investment, and “prolonged” as greater than 12 months assessed against the period in which the fair value has been below its original cost.

Based on our judgment, the decline in fair value of our investment in Rocket Internet SE, or Rocket Internet, was considered significant as the cumulative net losses from changes in fair value represented more than 20% decline in value below cost. As a result, total cumulative impairment losses recognized on our investment in Rocket Internet amounted to Php11,045 million as at December 31, 2017. Impairment losses charged in our consolidated income statements amounted to Php540 million and Php5,381 million for the years ended December 31, 2017 and 2016, respectively. See related discussion on Note 11 – Financial Assets at FVPL/Available-for-Sale Financial Investments – Investment of PLDT Online in Rocket Internet to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Determination of functional currency

The functional currencies of the entities under the PLDT Group are the currency of the primary economic environment in which each entity operates. It is the currency that mainly influences the revenue from and cost of rendering products and services.

The presentation currency of the PLDT Group is the Philippine peso. Based on the economic substance of the underlying circumstances relevant to the PLDT Group, the functional currency of all entities under PLDT Group is the Philippine peso, except for (a) SMHC, FECL Group, PLDT Global and certain of its subsidiaries, DCPL, PGNL and certain of its subsidiaries, Chikka and certain of its subsidiaries and PGIC, which uses the U.S. dollar; (b) VIP, VIH, VII, VIS, iCommerce, Fintech Ventures, 3rd Brand, CPL and AGSPL, which uses the Singaporean dollar; (c) CCCBL, which uses the Chinese renminbi; (d) AGS Malaysia and Takatack Malaysia, which uses the Malaysian ringgit; (e) AGS Indonesia, which uses the Indonesian rupiah; and (f) ePay Myanmar, which uses the Myanmar kyat.

Reclassification of certain land and building from investment property to property and equipment

In 2018, ePLDT reclassified certain land and building amounting to Php1,236 million from investment property to property and equipment because of the change in use of the assets. Prior to reclassification, these land and building were previously held for rental to third party lessees up to the end of the lease arrangement in 2018. Then Management decided not to renew the lease contracts but instead use the land and building for business operations. As such, Management believes that the reclassification to property and equipment is appropriate given the change in use of these assets.

Leases

As a lessee, we have various lease agreements in respect of certain equipment and properties. We evaluate whether significant risks and rewards of ownership of the leased properties are transferred to us (finance lease) or retained by the lessor (operating lease) based on IAS 17. Total lease expense amounted to Php7,321 million, Php7,016 million and Php6,632 million for the years ended December 31, 2018, 2017 and 2016, respectively. Total finance lease obligations amounted to Php514 thousand and Php679 thousand as at December 31, 2018 and 2017, respectively. See Note 2 – Summary of Significant Accounting Policies, Note 5 – Income and Expenses – Selling, General and Administrative Expenses, Note 20 – Interest-bearing Financial Liabilities – Obligations under Finance Leases and Note 27 – Financial Assets and Liabilities – Liquidity Risk to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Accounting for investment in Multisys Technologies Corporation, or Multisys

On December 3, 2018, PGIH completed the closing of its investment in Multisys. PGIH paid Php523 million to the owner of Multisys for the acquisition of existing shares and invested Php800 million into Multisys as a deposit for future stock subscription pending the approval by the Philippine SEC of the capital increase of Multisys.

Based on our judgment, at the PLDT Group level, PGIH's investments in Multisys gives PGIH a joint control in Multisys and thus are accounted for as investments in joint ventures using the equity method.

Accounting for investments in MediaQuest Holdings, Inc., or MediaQuest, through Philippine Depositary Receipts, or PDRs

ePLDT made various investments in PDRs issued by MediaQuest in relation to its direct interest in Satventures, Inc., or Satventures, and Hastings Holdings, Inc., or Hastings, and indirect interest in Cignal TV, Inc., or Cignal TV.

Based on our judgment, at the PLDT Group level, ePLDT's investments in PDRs gives ePLDT a significant influence over Satventures, Hastings and Cignal TV as evidenced by provision of essential technical information and material transactions among PLDT, Smart, Satventures, Hastings and Cignal TV, and thus are accounted for as investments in associates using the equity method.

On February 15, 2018, ePLDT ceased to have any economic interest in Hastings as a result of the assignment of the Hastings PDRs to PLDT Beneficial Trust Fund.

See related discussion on Note 10 – Investments in Associates and Joint Ventures – Investments in Associates – Investment in MediaQuest PDRs to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Assessment of loss of control over VIH

PLDT assesses the consequences of changes in the ownership interest in a subsidiary that may result in a loss of control as well as the consequence of losing control of a subsidiary during the reporting period. Whether or not PLDT retains control over the subsidiary depends on an evaluation of a number of factors that indicate if there are changes to one or more of the three elements of control. When PLDT has less than majority of the voting rights or similar rights to an investee, PLDT considers all relevant facts and circumstances in assessing whether it has power over an investee, including, among others, representation on its board of directors, voting rights, and other rights of other investors, including their participation in significant decisions made in the ordinary course of business.

As a result of the subscriptions of the new investors in VIH, see Note 2 – Summary of Significant Accounting Policies – Loss of Control over VIH, PCEV's ownership interest was diluted to 48.5% as such and retained only two out of the five Board of Director seats in the investee. Consequently, as at November 28, 2018, PLDT lost its control on VIH and accounted for its remaining interest as investment in associate. See Note 10 – Investments in Associates and Joint Ventures – Investment of PCEV in VIH to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Accounting for investments in Vega Telecom Inc., or VTI, Bow Arken Holdings Company, or Bow Arken, and Brightshare Holdings, Inc., or Brightshare

On May 30, 2016, PLDT acquired a 50% equity interest in each of VTI, Bow Arken and Brightshare. See related discussion on Note 10 – Investments in Associates and Joint Ventures – Investments in Joint Ventures to the accompanying audited consolidated financial statements in Item 18. "Financial Statements". Based on the Memorandum of Agreement, PLDT and Globe Telecom, Inc., or Globe, each have the right to appoint half the members of the Board of Directors of each of VTI, Bow Arken and Brightshare, as well as the (i) co-Chairman of the Board; (ii) co-Chief Executive Officer and President; and (iii) co-Controller where any matter requiring their approval shall be deemed passed or approved if the consents of both co-officers holding the same position are obtained. All decisions of each Board of Directors may only be approved if at least one director nominated by each of PLDT and Globe votes in favor of it.

Based on these rights, PLDT and Globe have joint control over VTI, Bow Arken and Brightshare, which is defined in IFRS 11, Joint Arrangements, as a contractually agreed sharing of control of an arrangement and exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. Consequently, PLDT and Globe classified the joint arrangement as a joint venture in accordance with IFRS 11 given that PLDT and Globe each have the right to 50% of the net assets of VTI, Bow Arken and Brightshare and their respective subsidiaries.

Accordingly, PLDT accounted for the investment in VTI, Bow Arken and Brightshare using the equity method of accounting in accordance with IAS 28. Under the equity method of accounting, the investment is initially recognized at cost and adjusted thereafter for the post-acquisition change in the investor's share of the investee's net assets.

Accounting for investment in Beacon Electric Asset Holdings, Inc., or Beacon, under equity method

IAS 28 provides that where an entity holds 50% or more of the voting power (directly or through subsidiaries) on an investee, it will be presumed that the investor has significant influence, unless it can be clearly demonstrated that this is not the case. If the ownership interest is less than 20%, the entity will be presumed not to have significant influence unless such influence can be clearly demonstrated. A substantial or majority ownership by another investor does not necessarily preclude an entity from having significant influence.

The existence of significant influence by an entity is usually evidenced in one or more of the following ways:

- Representation on Board of Directors or equivalent governing body of the investee;
- Participation in the policy-making process, including participation in decisions about dividends or other distributions;
- Material transactions between the entity and the investee;
- Interchange of managerial personnel; or
- Provision of essential technical information

On May 30, 2016, PCEV's Board of Directors approved the sale of 646 million shares of common stock and 458 million shares of preferred stock of Beacon, representing 25% equity interest in Beacon to MPIC. After the sale,

PCEV's equity ownership in Beacon was reduced from 50% to 25% and PCEV's effective interest in Meralco through Beacon was reduced to 8.74% (i.e., 25% x 34.96%). MPIC agreed that for as long as:
(a) PCEV owns at least 20% of the outstanding capital stock of Beacon; or (b) the purchase price has not been fully paid by MPIC, PCEV shall retain the right to vote 50% of the outstanding capital stock of Beacon.

As at December 31, 2016, Beacon owns 3,894 million shares of stock representing approximately 34.96% equity interest in Meralco. See Note 10 – Investments in Associates and Joint Ventures – Investment of PCEV in Beacon to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

On June 13, 2017, PCEV entered into another Share Purchase Agreement with MPIC to sell its remaining 25% equity interest in Beacon for a total consideration of Php21,800 million. MPIC settled a portion of the consideration amounting to Php12,000 million upon closing and the balance of Php9,800 million will be paid in annual installments from June 2018 to June 2021. The unpaid balance from MPIC is measured at fair value using a discounted cash flow valuation method, with interest income to be accreted over the term of the receivable.

After the sale of PCEV's remaining 25% interest in Beacon, PCEV continues to hold its representation in the Board and participate in decision making. As set forth in the Share Purchase Agreement: (a) the Seller shall be entitled to nominate one director to the Board of Directors of PCEV, or Seller's Director, and MPIC agrees to vote its shares in PCEV in favor of such Seller's Director; and (b) the Buyer shall cede to the Seller the right to vote all of the Shares, or Proxy Shares. The parties agreed that with respect to decisions or policies affecting dividend payouts to be made by Beacon, the Seller's Director shall exercise its voting rights, and shall vote, in accordance with the recommendation of the Buyer on such matter. As a result, PCEV's previously joint control over Beacon has become significant influence.

Material partly-owned subsidiaries

Our consolidated financial statements include additional information about subsidiaries that have non-controlling interest, or NCI, that are material to us, see Note 6 – Components of Other Comprehensive Loss to the accompanying audited consolidated financial statements in Item 18. "Financial Statements". Management determined material partly-owned subsidiaries as those with balance of NCI greater than 5% of the total equity as at December 31, 2018 and 2017.

Material associates and joint ventures

Our consolidated financial statements include additional information about associates and joint ventures that are material to us. See Note 10 – Investments in Associates and Joint Ventures to the accompanying audited consolidated financial statements in Item 18. "Financial Statements". Management determined material associates and joint ventures are those investees where our carrying amount of investments is greater than 5% of the total investments in associates and joint ventures as at December 31, 2018 and 2017.

Estimates and Assumptions

The key estimates and assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities recognized in our consolidated financial statements within the next financial year are discussed below. We based our estimates and assumptions on parameters available when our consolidated financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising beyond our control. Such changes are reflected in the assumptions when they occur.

Loss of control over VIH – Fair value measurement of interest retained

A deemed disposal occurs where the proportionate interest of PLDT in a subsidiary is reduced other than by an actual disposal, for example, by the issuance of shares to a third party investor by the subsidiary. When PLDT no longer has control, the remaining interest is measured at fair value as at the date the control was lost. When determining the fair value, PLDT takes into account recent transactions and all the facts and circumstances surrounding the transactions such as timing, transaction size, transaction frequency, and motivations of the investors. When valuing the shares in associates and joint ventures, PLDT carefully assesses the accounting implications of the stipulation in the shareholders' agreements. PLDT considers whether such a transaction has been made at arm's length.

Impairment of non-financial assets

IFRS requires that an impairment review be performed when certain impairment indicators are present. In the case of goodwill and intangible assets with indefinite useful life, at a minimum, such assets are subject to an impairment test annually and whenever there is an indication that such assets may be impaired. This requires an estimation of the VIU of the CGUs to which these assets are allocated. The VIU calculation requires us to make an estimate of the expected future cash flows from the CGU and to choose a suitable discount rate in order to calculate the present value of those cash flows. See Note 14 – Goodwill and Intangible Assets – Impairment Testing of Goodwill and Intangible Assets with Indefinite Useful Life to the accompanying audited consolidated financial statements in Item 18. “Financial Statements” for the key assumptions used to determine the VIU of the relevant CGUs.

Determining the recoverable amount of property and equipment, investments in associates and joint ventures, intangible assets, prepayments and other noncurrent assets, requires us to make estimates and assumptions in the determination of future cash flows expected to be generated from the continued use and ultimate disposition of such assets. Future events could cause us to conclude that property and equipment, investments in associates and joint ventures, intangible assets and other noncurrent assets associated with an acquired business are impaired. Any resulting impairment loss could have a material adverse impact on our financial position and financial performance.

The preparation of estimated future cash flows involves significant estimations and assumptions. While we believe that our assumptions are appropriate and reasonable, significant changes in our assumptions may materially affect our assessment of recoverable values and may lead to future impairment charges under IFRS.

Total asset impairment recognized on noncurrent assets amounted to Php2,122 million, Php3,913 million and Php1,074 million for the years ended December 31, 2018, 2017 and 2016, respectively. See Note 4 – Operating Segment Information, Note 5 – Income and Expenses – Asset Impairment, Note 9 – Property and Equipment – Impairment of Certain Wireless Network Equipment and Facilities and Note 10 – Investments in Associates and Joint Ventures to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

The carrying values of our property and equipment, investments in associates and joint ventures, goodwill and intangible assets, and prepayments are separately disclosed in Note 9 – Property and Equipment, Note 10 – Investments in Associates and Joint Ventures, Note 14 – Goodwill and Intangible Assets and Note 18 – Prepayments, respectively, to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

Estimating useful lives of property and equipment

We estimate the useful lives of each item of our property and equipment based on the periods over which our assets are expected to be available for use. Our estimation of the useful lives of our property and equipment is also based on our collective assessment of industry practice, internal technical evaluation and experience with similar assets. The estimated useful lives of each assets are reviewed every year-end and updated if expectations differ from previous estimates due to physical wear and tear, technical or commercial obsolescence and legal or other limitations on the use of our assets. It is possible, however, that future results of operations could be materially affected by changes in our estimates brought about by changes in the factors mentioned above. The amounts and timing of recorded expenses for any period would be affected by changes in these factors and circumstances. A reduction in the estimated useful lives of our property and equipment would increase our recorded depreciation and decrease the carrying amount of our property and equipment.

In 2018 and 2017, we shortened the estimated useful lives of certain data network platform and other technology equipment resulting from the transformation projects to improve and simplify the network and systems applications. As a result, we recognized additional depreciation amounting to Php15,807 million and Php19,481 million for the years ended December 31, 2018 and 2017, respectively. We expect additional depreciation in 2019 arising from the acceleration of the 2018 technology equipment amounting Php540 million.

The total depreciation and amortization of property and equipment amounted to Php47,240 million, Php51,915 million and Php34,455 million for the years ended December 31, 2018, 2017 and 2016, respectively. Total carrying values of property and equipment, net of accumulated depreciation and amortization, amounted to Php195,964 million and Php186,907 million as at December 31, 2018 and 2017, respectively. See Note 2 – Summary of Significant Accounting Policies, Note 4 – Operating Segment Information and Note 9 – Property and Equipment to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

Estimating useful lives of intangible assets with finite lives

Intangible assets with finite lives are amortized over their expected useful lives using the straight-line method of amortization. At a minimum, the amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at each financial year-end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for by changing the amortization period or method, as appropriate, and treated as changes in accounting estimates. The amortization expense on intangible assets with finite lives is recognized in our consolidated income statement.

The total amortization of intangible assets with finite lives amounted to Php892 million, Php835 million and Php929 million for the years ended December 31, 2018, 2017 and 2016, respectively. Total carrying values of intangible assets with finite lives amounted to Php2,699 million and Php3,699 million as at December 31, 2018 and 2017, respectively. See Note 2 – Summary of Significant Accounting Policies, Note 4 – Operating Segment Information, Note 5 – Income and Expenses – Selling, General and Administrative Expenses and Note 14 – Goodwill and Intangible Assets to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

Recognition of deferred income tax assets

We review the carrying amounts of deferred income tax assets at the end of each reporting period and reduce these to the extent that these are no longer probable that sufficient taxable income will be available to allow all or part of the deferred income tax assets to be utilized. Our assessment on the recognition of deferred income tax assets on deductible temporary differences is based on the level and timing of forecasted taxable income of the subsequent reporting periods. This forecast is based on our past results and future expectations on revenues and expenses as well as future tax planning strategies. Based on this, management expects that we will generate sufficient taxable income to allow all or part of our deferred income tax assets to be utilized.

Based on the above assessment, our consolidated unrecognized deferred income tax assets amounted to Php3,227 million and Php5,561 million as at December 31, 2018 and 2017, respectively. Total consolidated provision from deferred income tax amounted to Php1,375 million for the year ended December 31, 2018, while total consolidated benefit from deferred income tax amounted to Php2,738 million and Php4,134 million for the years ended December 31, 2017 and 2016, respectively. Total consolidated recognized net deferred income tax assets amounted to Php27,697 million and Php30,466 million as at December 31, 2018 and 2017, respectively. See Note 2 – Summary of Significant Accounting Policies, Note 4 – Operating Segment Information and Note 7 – Income Taxes to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Estimating allowance for expected credit losses – Beginning January 1, 2018

a. Measurement of ECLs

ECLs are derived from unbiased and probability-weighted estimates of expected loss, and are measured as follows:

- Financial assets that are not credit-impaired at the reporting date: as the present value of all cash shortfalls over the expected life of the financial asset discounted by the EIR. The cash shortfall is the difference between the cash flows due to us in accordance with the contract and the cash flows that we expect to receive; and

- Financial assets that are credit-impaired at the reporting date: as the difference between the gross carrying amount and the present value of estimated future cash flows discounted by the EIR.

We leverage existing risk management indicators (e.g. internal credit risk classification and restructuring triggers), credit risk rating changes and reasonable and supportable information which allow us to identify whether the credit risk of financial assets has significantly increased.

b. Inputs, assumptions and estimation techniques

- General approach for cash in bank, short-term investments, certain trade receivables, debt securities and other long-term investments and advances and other noncurrent assets

The ECL is measured on either a 12-month or lifetime basis depending on whether a significant increase in credit risk has occurred since initial recognition or whether an asset is considered to be credit-impaired. We consider the probability of our counterparty to default its obligation and the expected loss at default after considering the effects of collateral, any potential value when realized and time value of money.

The assumptions underlying the ECL calculation are monitored and reviewed on a quarterly basis.

- Simplified approach for trade and other receivables and contract assets

We use a simplified approach for calculating ECL on trade and other receivables and contract assets. We consider historical days past due for groupings of various customer segments that have similar loss patterns and remaining time to maturities.

We use historical observed default rates and adjust these historical credit loss experience with forward-looking information. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analyzed.

There have been no significant changes in estimation techniques or significant assumptions made during the reporting period.

- Incorporation of forward-looking information

We incorporate forward-looking information into both our assessment of whether the credit risk of an instrument has increased significantly since its initial recognition and our measurement of ECL.

To do this, management considered a range of relevant forward-looking macro-economic assumptions for the determination of unbiased general industry adjustments and any related specific industry adjustments that support the calculation of ECLs.

The macroeconoemic factors are aligned with information used by us for other purposes such as strategic planning and budgeting.

We have identified and documented key drivers of credit risk and credit losses of each portfolio of financial instruments and, using an analysis of historical data, has estimated relationships between macro-economic variables and credit risk and credit losses.

Predicted relationship between the key indicators and default and loss rates on various portfolios of financial assets have been developed based on analyzing historical data over the past 3 to 8 years. The methodologies and assumptions including any forecasts of future economic conditions are reviewed regularly.

We have not identified any uncertain event that we have assessed to be relevant to the risk of default occurring but where we are not able to estimate the impact on ECL due to lack of reasonable and supportable information.

Total provision for expected credit losses for trade and other receivables and contract assets amounted to Php4,192 million and Php17 million, respectively, for the year ended December 31, 2018. Trade and other receivables and contract assets, net of allowance for expected credit losses, amounted to Php24,056 million and Php3,268 million, respectively, as at December 31, 2018. See Note 5 – Income and Expenses and Note 16 – Trade and Other Receivables – Grouping of instruments for losses measured on collective basis to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

- Grouping of instruments for losses measured on collective basis

A broad range of forward-looking information were considered as economic inputs such as the gross domestic product, inflation rate, unemployment rates and other economic indicators. For expected credit loss provisions modelled on a collective basis, a grouping of exposures is performed on the basis of shared risk characteristics, such that risk exposures within a group are homogeneous. In performing this grouping, there must be sufficient information for the PLDT Group to be statistically credible. Where sufficient information is not available internally, then we have considered benchmarking internal/external supplementary data to use for modelling purposes. The characteristics and any supplementary data used to determine groupings are outlined below.

Trade receivables – Groupings for collective measurement

a. Retail subscribers;
b. Corporate subscribers;
c. Foreign administrations and domestic carriers; and
d. Dealers, agents and others.

The following credit exposures are assessed individually:

- All stage 3 assets, regardless of the class of financial assets; and
- The cash and cash equivalents, investment in debt securities and other long-term investments, and other financial assets.

Estimating allowance for doubtful accounts – Prior to January 1, 2018

If we assessed that there was objective evidence that an impairment loss was incurred in our trade and other receivables, we estimate the allowance for doubtful accounts related to our trade and other receivables that are specifically identified as doubtful of collection. The amount of allowance is evaluated by management on the basis of factors that affect the collectability of the accounts. In these cases, we use judgment based on all available facts and circumstances, including, but not limited to, the length of our relationship with the customer and the customer's credit status based on third party credit reports and known market factors, to record specific reserves for customers against amounts due in order to reduce our receivables to amounts that we expect to collect. These specific reserves are re-evaluated and adjusted as additional information received affects the amounts estimated.

In addition to specific allowance against individually significant receivables, we also assess a collective impairment allowance against credit exposures of our customer which were grouped based on common credit characteristics, which, although not specifically identified as requiring a specific allowance, have a greater risk of default than when the receivables were originally granted to customers. This collective allowance is based on historical loss experience using various factors, such as historical performance of the customers within the collective group, deterioration in the markets in which the customers operate, and identified structural weaknesses or deterioration in the cash flows of customers.

Total provision for doubtful accounts for trade and other receivables amounted to Php3,438 million and Php8,027 million for the years ended December 31, 2017 and 2016, respectively. Trade and other receivables, net of allowance for doubtful accounts, amounted to Php33,761 million as at December 31, 2017. See Note 4 – Operating Segment Information, Note 5 – Income and Expenses and Note 16 – Trade and Other Receivables to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Estimating pension benefit costs and other employee benefits

The cost of defined benefit and present value of the pension obligation are determined using the projected unit credit method. An actuarial valuation includes making various assumptions which consists, among other things, discount rates, rates of compensation increases and mortality rates. Further, our accrued benefit cost is affected by the fair value of the plan assets. Key assumptions used to estimate fair value of the unlisted equity investments included in the plan assets consist of revenue growth rate, directs costs, capital expenditures, discount rates and terminal growth rates. See Note 25 – Employee Benefits to the accompanying audited consolidated financial statements in Item 18. "Financial Statements". Due to complexity of valuation, the underlying assumptions and its long-term nature, a defined benefit obligation is highly sensitive to changes in assumptions. While we believe that our assumptions are reasonable and appropriate, significant differences in our actual experience or significant changes in our assumptions may materially affect our cost for pension and other retirement obligations. All assumptions are reviewed every year-end.

Net consolidated pension benefit costs amounted to Php1,855 million, Php1,610 million and Php1,775 million for the years ended December 31, 2018, 2017 and 2016, respectively. The prepaid benefit costs amounted to Php393 million and Php400 million as at December 31, 2018 and 2017, respectively. The accrued benefit costs amounted to Php7,182 million and Php8,997 million as at December 31, 2018 and 2017, respectively. See Note 5 – Income and Expenses – Compensation and Employee Benefits, Note 18 – Prepayments and Note 25 – Employee Benefits to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

On September 26, 2017, the Board of Directors of PLDT approved the TIP which intends to provide incentive compensation to key officers, executives and other eligible participants who are consistent performers and contributors to the Company's strategic and financial goals. The incentive compensation will be in the form of Performance Shares, PLDT common shares of stock, which will be released in three annual grants on the condition, among others, that pre-determined consolidated core net income targets are successfully achieved over three annual performance periods from January 1, 2017 to December 31, 2019. On September 26, 2017, the Board of Directors approved the acquisition of 860 thousand Performance Shares to be awarded under the TIP. On March 7, 2018, the ECC of the Board approved the acquisition of additional 54 thousand shares, increasing the total Performance Shares to 914 thousand. Metropolitan Bank and Trust Company, or Metrobank, through its Trust Banking Group, is the appointed Trustee of the trust established for purposes of the TIP. The Trustee is designated to acquire the PLDT common shares in the open market through the facilities of the PSE, and administer their distribution to the eligible participants subject to the terms and conditions of the TIP.

On December 11, 2018, The Executive Compensation Committee, or ECC, approved Management's recommended modifications to the Plan, and partial equity and cash settled set-up will be implemented for the 2019 TIP Grant. The estimated fair value of remaining unpurchased shares will be given out as cash award. The fair value of the cash award relating to unpurchased shares is determined using the estimate of the fair value of the original award approved in 2017.

As at March 21, 2019, a total of 757 thousand PLDT common shares have been acquired by the Trustee, of which 204 thousand PLDT common shares have been released to the eligible participants on April 5, 2018 for the 2017 annual grant. The TIP is administered by the ECC of the Board. The expense accrued for the TIP amounted to Php208 million and Php827 million for the years ended December 31, 2018 and 2017, respectively, and is presented as equity reserves in our consolidated statement of financial position. See Note 5 – Income and Expenses – Compensation and Employee Benefits and Note 25 – Employee Benefits – Other Long-term Employee Benefits to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Provision for asset retirement obligations

Provision for asset retirement obligations are recognized in the period in which these are incurred if a reasonable estimate can be made. This requires an estimation of the cost to restore or dismantle on a per square meter basis, depending on the location, and is based on the best estimate of the expenditure required to settle the obligation at the future restoration or dismantlement date, discounted using a pre-tax rate that reflects the current market assessment of the time value of money and, where appropriate, the risk specific to the liability. Total provision for asset retirement obligations amounted to Php1,656 million and Php1,630 million as at December 31, 2018 and 2017, respectively. See Note 21 – Deferred Credits and Other Noncurrent Liabilities to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Provision for legal contingencies and tax assessments

We are currently involved in various legal proceedings and tax assessments. Our estimates of the probable costs for the resolution of these claims have been developed in consultation with our counsel handling the defense in these matters and are based upon our analysis of potential results. We currently do not believe these proceedings could materially reduce our revenues and profitability. It is possible, however, that future financial position and performance could be materially affected by changes in our estimates or effectiveness of our strategies relating to these proceedings and assessments. See Note 26 – Provisions and Contingencies to the accompanying audited consolidated financial statements in Item 18. "Financial Statements".

Based on management's assessment, appropriate provisions were made; however, management has decided not to disclose further details of these provisions as they may prejudice our position in certain legal proceedings.

Revenue recognition – Prior to January 1, 2018

Our revenue recognition policies require us to make use of estimates and assumptions that may affect the reported amounts of our revenues and receivables.

Our agreements with domestic and foreign carriers for inbound and outbound traffic subject to settlements require traffic reconciliations before actual settlement is done, which may not be the actual volume of traffic as measured by us. Initial recognition of revenues is based on our observed traffic adjusted by our normal experience adjustments, which historically are not material to our consolidated financial statements. Differences between the amounts initially recognized and the actual settlements are taken up in the accounts upon reconciliation.

Under certain arrangements with our knowledge processing solutions services, if there is uncertainty regarding the outcome of the transaction for which service was rendered, revenue is recognized only to the extent of expenses incurred for rendering the service and only to such amount as determined to be recoverable.

We recognize our revenues from installation and activation related fees and the corresponding costs over the expected average periods of customer relationship for fixed line and cellular services. We estimate the expected average period of customer relationship based on our most recent churn rate analysis.

Determination of fair values of financial assets and financial liabilities

Where the fair value of financial assets and financial liabilities recorded in our consolidated statement of financial position cannot be derived from active markets, they are determined using valuation techniques including the discounted cash flows model. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgment is required in establishing fair values. The judgments include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments.

Other than those whose carrying amounts are reasonable approximations of fair values, total fair values of noncurrent financial assets and noncurrent financial liabilities as at December 31, 2018 amounted to Php2,168 million and Php143,392 million, respectively, while the total fair values of noncurrent financial assets and noncurrent financial liabilities as at December 31, 2017 amounted to Php13,846 million and Php157,711 million, respectively. See Note 27 – Financial Assets and Liabilities to the accompanying audited consolidated financial statements in Item 18. “Financial Statements”.

New Accounting Standards and Interpretations to Existing Standards Effective Subsequent to December 31, 2018

See Note 2 – Summary of Significant Accounting Policies to the accompanying audited consolidated financial statements in Item 18. “Financial Statements” for the discussion of new accounting standards that will become effective subsequent to December 31, 2018 and their anticipated impact on our consolidated financial statements for the current and future periods.

Results of Operations

The table below shows the contribution by each of our business segments to our consolidated revenues, expenses, other income (expenses), income (loss) before income tax, provision for income tax, net income (loss), segment profit (loss), Adjusted EBITDA, Adjusted EBITDA margin and core income for the years ended December 31, 2018, 2017 and 2016. In each of the years ended December 31, 2018, 2017 and 2016, majority of our revenues are derived from our operations within the Philippines. Our revenues derived from outside the Philippines consist primarily of revenues from incoming international calls to the Philippines.

In 2018, we reclassified the presentation of VIH from wireless to other business resulting from the transfer from Smart to PCEV in April 2018. In 2017, we changed the presentation of our expenses by combining certain line items to simplify our reporting while maintaining the same level of information. In 2016, we changed the classification of our revenue mix to provide for a more direct comparison to the current industry presentation in the Philippines by combining or separating certain line items from our service lines, and moving line items from one service line to another. We also changed the classification of our impairment on investments not directly affecting operations (most significantly, the impairment of our investment in Rocket Internet SE, or Rocket Internet), from operating expenses to other expenses. Accordingly, we changed prior years' financial information to conform with the current years' presentation in order to provide a clear comparison.

	Wireless	Fixed Line	Others	Inter-segment Transactions	Consolidated
		(Pesos in millions)			
For the year ended December 31, 2018					
Revenues	89,929	85,222	1,138	(11,537)	164,752
Expenses	82,246	77,782	4,093	(13,142)	150,979
Other income (expenses)	(625)	(45)	12,099	(2,387)	9,042
Income before income tax	7,058	7,395	9,144	(782)	22,815
Provision for income tax	1,333	1,336	1,173	—	3,842
Net income/Segment profit	5,725	6,059	7,971	(782)	18,973
Adjusted EBITDA	34,235	30,875	(2,688)	1,605	64,027
Adjusted EBITDA margin[1]	41%	38%	-246%	—	42%
Core income	9,760	6,925	9,952	(782)	25,855
For the year ended December 31, 2017					
Revenues	92,572	78,341	1,279	(12,266)	159,926
Expenses	97,651	63,864	2,774	(13,874)	150,415
Other income (expenses)	77	(3,323)	10,530	(2,226)	5,058
Income (loss) before income tax	(5,002)	11,154	9,035	(618)	14,569
Provision for (benefit from) income tax	(2,787)	3,680	210	—	1,103
Net income (loss)/Segment profit (loss)	(2,215)	7,474	8,825	(618)	13,466
Adjusted EBITDA	36,395	29,478	(1,307)	1,608	66,174
Adjusted EBITDA margin[1]	42%	39%	-104%	—	44%
Core income	9,812	8,846	9,628	(618)	27,668
For the year ended December 31, 2016					
Revenues	104,087	72,728	847	(12,400)	165,262
Expenses	91,623	61,285	1,623	(13,972)	140,559
Other income (expenses)	(3,103)	(291)	2,334	(1,572)	(2,632)
Income before income tax	9,361	11,152	1,558	—	22,071
Provision for (Benefit from) income tax	(1,257)	3,018	148	—	1,909
Net income/Segment profit	10,618	8,134	1,410	—	20,162
Adjusted EBITDA	32,915	26,950	(276)	1,572	61,161
Adjusted EBITDA margin[1]	33%	39%	-37%	—	39%
Core income	12,275	7,746	7,836	—	27,857

[(1)] Adjusted EBITDA margin for the year is measured as Adjusted EBITDA divided by service revenues.

Years Ended December 31, 2018 and 2017

On a Consolidated Basis

Revenues

We reported consolidated revenues of Php164,752 million in 2018, an increase of Php4,826 million, or 3%, as compared with Php159,926 million in 2017, primarily due to higher revenues from data services in our Fixed Line business segment, as well as higher non-service revenues from our Wireless business segment, partially offset by lower revenues from mobile and home broadband services from our Wireless business segment, and lower voice revenues from our Fixed Line business segment.

The following table shows the breakdown of our consolidated revenues by services for the years ended December 31, 2018 and 2017:

	Wireless	Fixed Line	Others	Inter-segment Transactions	Consolidated
	(Pesos in millions)				
For the year ended December 31, 2018					
Service Revenues					
Wireless	83,001			(2,736)	80,265
Mobile	81,096			(1,192)	79,904
Home Broadband	155			—	155
MVNO and others	1,750			(1,544)	206
Fixed Line		81,648		(8,790)	72,858
Voice		25,178		(2,192)	22,986
Data		54,770		(5,912)	48,858
Home broadband		26,733		(255)	26,478
Corporate data and ICT		28,037		(5,657)	22,380
Miscellaneous		1,700		(686)	1,014
Others			1,094	(10)	1,084
Total Service Revenues	83,001	81,648	1,094	(11,536)	154,207
Non-Service Revenues					
Sale of computers, phone units, mobile handsets and subscriber identification module, or SIM-packs	6,928	3,064	44	(8)	10,028
Point-product sales	—	510	—	7	517
Total Non-Service Revenues	6,928	3,574	44	(1)	10,545
Total Revenues	89,929	85,222	1,138	(11,537)	164,752
For the year ended December 31, 2017					
Service Revenues					
Wireless	87,412			(1,284)	86,128
Mobile	84,439			(1,273)	83,166
Home Broadband	2,556			(9)	2,547
MVNO and others	417			(2)	415
Fixed Line		74,757		(10,946)	63,811
Voice		28,500		(3,204)	25,296
Data		44,294		(6,849)	37,445
Home broadband		18,054		(245)	17,809
Corporate data and ICT		26,240		(6,604)	19,636
Miscellaneous		1,963		(893)	1,070
Others			1,256	(30)	1,226
Total Service Revenues	87,412	74,757	1,256	(12,260)	151,165
Non-Service Revenues					
Sale of computers, phone units, mobile handsets and	5,160	2,724	23	(18)	7,889

SIM-packs					
Point-product sales	—	860	—	12	872
Total Non-Service Revenues	5,160	3,584	23	(6)	8,761
Total Revenues	92,572	78,341	1,279	(12,266)	159,926

The following table shows the breakdown of our consolidated revenues by business segment for the years ended December 31, 2018 and 2017:

	2018	%	2017	%	Change Amount	%
	(Pesos in millions)					
Wireless	89,929	54	92,572	58	(2,643)	(3)
Fixed line	85,222	52	78,341	49	6,881	9
Others[1]	1,138	1	1,279	1	(141)	(11)
Inter-segment transactions	(11,537)	(7)	(12,266)	(8)	729	6
Consolidated	164,752	100	159,926	100	4,826	3

[1] Other business segment includes revenues from digital platforms and mobile financial services.

Expenses

Consolidated expenses increased by Php564 million to Php150,979 million in 2018 from Php150,415 million in 2017, primarily due to higher depreciation and amortization, selling, general and administrative expenses, asset impairment and provisions in our Fixed Line business segment, and higher cost of sales and services in our Wireless business segment, partially offset by lower depreciation and amortization, asset impairment and interconnection costs in our Wireless business segment.

The following table shows the breakdown of our consolidated expenses by business segment for the years ended December 31, 2018 and 2017:

	2018	%	2017	%	Change Amount	%
	(Pesos in millions)					
Wireless	82,246	54	97,651	65	(15,405)	(16)
Fixed line	77,782	52	63,864	42	13,918	22
Others	4,093	3	2,774	2	1,319	48
Inter-segment transactions	(13,142)	(9)	(13,874)	(9)	732	5
Consolidated	150,979	100	150,415	100	564	—

Other Income (Expenses)

Consolidated other income increased by Php3,984 million, or 79%, to Php9,042 million in 2018 from Php5,058 million in 2017, primarily due to gain on the deconsolidation of VIH and realized gain on fair value of Rocket Internet investment in 2018 from our Other business segment, as well as impairment of investment in Hastings PDRs in 2017 from our Fixed Line business segment, partially offset by gain on sale of Beacon Electric Holdings, Inc., or Beacon, shares in 2017 and equity share in net losses of associates and joint ventures in 2018 from our Other business segment.

The following table shows the breakdown of our consolidated other income (expenses) by business segment for the years ended December 31, 2018 and 2017:

	2018	2017	Change Amount	%
	(Pesos in millions)			
Wireless	(625)	77	(702)	(912)
Fixed line	(45)	(3,323)	3,278	99
Others	12,099	10,530	1,569	15
Inter-segment transactions	(2,387)	(2,226)	(161)	(7)
Consolidated	9,042	5,058	3,984	79

Net Income (Loss)

Consolidated net income increased by Php5,507 million, or 41%, to Php18,973 million in 2018, from Php13,466 million in 2017, primarily due to higher net income from our Wireless business segment, partly offset by lower net income from our Fixed Line and Other business segments. Our consolidated basic and diluted EPS increased to Php87.28 in 2018 from Php61.61 in 2017. Our weighted average number of outstanding common shares was approximately 216.06 million in each of 2018 and 2017.

The following table shows the breakdown of our consolidated net income (loss) by business segment for the years ended December 31, 2018 and 2017:

	2018	%	2017	%	Change Amount	%
	(Pesos in millions)					
Wireless	5,725	30	(2,215)	(17)	7,940	358
Fixed line	6,059	32	7,474	56	(1,415)	(19)
Others	7,971	42	8,825	66	(854)	(10)
Inter-segment transactions	(782)	(4)	(618)	(5)	(164)	(27)
Consolidated	18,973	100	13,466	100	5,507	41

Adjusted EBITDA

Our consolidated Adjusted EBITDA amounted to Php64,027 million in 2018, a decrease of Php2,147 million, or 3%, as compared with Php66,174 million in 2017, primarily due to lower Adjusted EBITDA in our Wireless and Other business segments, partially offset by higher Adjusted EBITDA in our Fixed Line business segment.

The following table shows the breakdown of our consolidated Adjusted EBITDA by business segment for the years ended December 31, 2018 and 2017:

	2018	%	2017	%	Change Amount	%
	(Pesos in millions)					
Wireless	34,235	53	36,395	55	(2,160)	(6)
Fixed line	30,875	48	29,478	45	1,397	5
Others	(2,688)	(4)	(1,307)	(2)	(1,381)	(106)
Inter-segment transactions	1,605	3	1,608	2	(3)	—
Consolidated	64,027	100	66,174	100	(2,147)	(3)

Core Income

Our consolidated core income amounted to Php25,855 million in 2018, a decrease of Php1,813 million, or 7%, as compared with Php27,668 million in 2017, primarily due to lower core income from our Fixed Line business segment, partially offset by higher core income from our Other business segment. Our consolidated basic and diluted core EPS decreased to Php119.39 in 2018 from Php127.79 in 2017.

The following table shows the breakdown of our consolidated core income by business segment for the years ended December 31, 2018 and 2017:

	2018	%	2017	%	Change Amount	%
	(Pesos in millions)					
Wireless	9,760	38	9,812	35	(52)	(1)
Fixed line	6,925	27	8,846	32	(1,921)	(22)
Others	9,952	38	9,628	35	324	3
Inter-segment transactions	(782)	(3)	(618)	(2)	(164)	(27)
Consolidated	25,855	100	27,668	100	(1,813)	(7)

On a Business Segment Basis

Wireless

Revenues

We generated revenues of Php89,929 million from our Wireless business segment in 2018, a decrease of Php2,643 million, or 3%, from Php92,572 million in 2017.

The following table summarizes our total revenues by service from our Wireless business segment for the years ended December 31, 2018 and 2017:

	2018	%	2017	%	Increase (Decrease) Amount	%
	(Pesos in millions)					
Service Revenues:						
Mobile	81,096	90	84,439	91	(3,343)	(4)
Home broadband	155	—	2,556	3	(2,401)	(94)
MVNO and others[1]	1,750	2	417	—	1,333	320
Total Wireless Service Revenues	83,001	92	87,412	94	(4,411)	(5)
Non-Service Revenues:						
Sale of mobile handsets, SIM-packs and broadband data modems	6,928	8	5,160	6	1,768	34
Total Wireless Revenues	89,929	100	92,572	100	(2,643)	(3)

[1] Includes service revenues generated by MVNOs of PLDT Global subsidiaries and facilities service fees.

Service Revenues

Our wireless service revenues in 2018 decreased by Php4,411 million, or 5%, to Php83,001 million as compared with Php87,412 million in 2017, mainly as a result of lower revenues from mobile, and home broadband, partially offset by higher revenues from other services. As a percentage of our total wireless revenues, service revenues accounted for 92% and 94% for the years ended December 31, 2018 and 2017, respectively.

Mobile Services

Our mobile service revenues amounted to Php81,096 million in 2018, a decrease of Php3,343 million, or 4%, from Php84,439 million in 2017. Mobile service revenues accounted for 98% and 97% of our wireless service revenues for the years ended December 31, 2018 and 2017, respectively. In the third quarter of 2018, the revenue split allocation among voice, SMS and data for our mobile bundled plans was revised to reflect the current usage behavior pattern of our subscribers based on the recent network study conducted for our Wireless business segment.

	2018	%	2017	%	Increase (Decrease) Amount	%
	(Pesos in millions)					
Mobile Services:						
Data	38,350	47	26,281	31	12,069	46
Voice	28,052	35	30,724	36	(2,672)	(9)
SMS	13,103	16	26,045	31	(12,942)	(50)
Inbound roaming and others[1]	1,591	2	1,389	2	202	15
Total	81,096	100	84,439	100	(3,343)	(4)

[1] Refers to other non-subscriber-related revenues consisting primarily of inbound international roaming fees.

Data Services

Mobile revenues from our data services, which include mobile internet, mobile broadband and other data services, increased by Php12,069 million, or 46%, to Php38,350 million in 2018 from Php26,281 million in 2017 due to increased mobile internet usage driven mainly by enhanced data offers with video access, supported by continuous network improvement and LTE migration, as well as the impact of the revised revenue split allocation, partially offset by lower revenues from mobile broadband and the impact of adoption of IFRS 15. Data services accounted for 47% and 31% of our mobile service revenues for the years ended December 31, 2018 and 2017, respectively.

The following table shows the breakdown of our mobile data service revenues for the years ended December 31, 2018 and 2017:

	2018	%	2017	%	Increase (Decrease) Amount	%
	(Pesos in millions)					
Data Services:						
Mobile internet[1]	33,207	87	20,086	76	13,121	65
Mobile broadband	4,589	12	6,030	23	(1,441)	(24)
Other data[2]	554	1	165	1	389	236

Total	38,350	100	26,281	100	12,069	46

[1] Includes revenues from web-based services, net of discounts and content provider costs.
[2] Beginning third quarter of 2018, revenues from other data include value-added services, or VAS.

Mobile internet

Mobile internet service revenues increased by Php13,121 million, or 65%, to Php33,207 million in 2018 from Php20,086 million in 2017, primarily due to the following: (i) LTE migration efforts which yielded growth in LTE SIMs and smartphone ownership among our subscriber base; (ii) Youtube promo which built a video-streaming habit among users; (iii) prevalent use of mobile apps, social networking and e-commerce sites, and other OTT services; and (iv) impact of the revised revenue split allocation. Mobile internet services accounted for 41% and 24% of our mobile service revenues for the years ended December 31, 2018 and 2017, respectively.

Mobile broadband

Mobile broadband revenues amounted to Php4,589 million in 2018, a decrease of Php1,441 million, or 24%, from Php6,030 million in 2017, primarily due to a decrease in the number of subscribers using pocket wifi as they shift to using mobile internet and fixed DSL/Fiber home broadband. Mobile broadband services accounted for 6% and 7% of our mobile service revenues for the years ended December 31, 2018 and 2017, respectively.

Other data

Revenues from our other data services, which include VAS, domestic leased lines and share in revenue from PLDT WeRoam, increased by Php389 million, or 236%, to Php554 million in 2018 from Php165 million in 2017.

Voice Services

Mobile revenues from our voice services, which include all voice traffic, decreased by Php2,672 million, or 9%, to Php28,052 million in 2018 from Php30,724 million in 2017, mainly on account of lower traffic due to subscribers' shift to digital lifestyle with access to alternative calling options and other OTT services, and the impact of reduction in interconnection rates for voice services, as mandated by the NTC, and adoption of IFRS 15, partly offset by the effect of the revised revenue split allocation. Mobile voice services accounted for 35% and 36% of our mobile service revenues for the years ended December 31, 2018 and 2017, respectively.

Domestic voice service revenues decreased by Php650 million, or 3%, to Php23,486 million in 2018 from Php24,136 million in 2017, due to lower domestic inbound and outbound voice service revenues.

International voice service revenues decreased by Php2,022 million, or 31%, to Php4,566 million in 2018 from Php6,588 million in 2017, primarily due to lower international inbound and outbound voice service revenues as a result of lower international voice traffic, partially offset by the effect of higher weighted average rate of the Philippine peso relative to the U.S. dollar.

SMS Services

Mobile revenues from our SMS services, which include all SMS-related services, decreased by Php12,942 million, or 50%, to Php13,103 million in 2018 from Php26,045 million in 2017 mainly due to declining SMS volumes as a result of alternative text messaging options, such as OTT services and social media, and the impact of the revised revenue split allocation, reduction in interconnection rates for SMS services and adoption of IFRS 15. Mobile SMS services accounted for 16% and 31% of our mobile service revenues for the years ended December 31, 2018 and 2017, respectively.

Inbound Roaming and Others

Mobile revenues from inbound roaming and other services increased by Php202 million, or 15%, to Php1,591 million in 2018 from Php1,389 million in 2017.

The following table shows the breakdown of our mobile service revenues by service type for the years ended December 31, 2018 and 2017:

	2018	2017	Increase (Decrease) Amount	%
	(Pesos in millions)			
Mobile service revenues	81,096	84,439	(3,343)	(4)
By service type				
Prepaid	59,914	59,862	52	—
Postpaid	19,591	23,188	(3,597)	(16)
Inbound roaming and others	1,591	1,389	202	15

Prepaid Revenues

Revenues generated from our mobile prepaid services amounted to Php59,914 million in 2018, an increase of Php52 million as compared with Php59,862 million in 2017. Mobile prepaid service revenues accounted for 74% and 71% of mobile service revenues for the years ended December 31, 2018 and 2017, respectively. The increase in revenues from our mobile prepaid services was primarily driven by a higher mobile prepaid subscriber base combined with the sustained growth in mobile internet revenues.

Postpaid Revenues

Revenues generated from mobile postpaid service amounted to Php19,591 million in 2018, a decrease of Php3,597 million, or 16%, as compared with Php23,188 million in 2017, and accounted for 24% and 27% of mobile service revenues for the years ended December 31, 2018 and 2017, respectively. The decrease in our mobile postpaid service revenues was primarily due to a lower postpaid subscriber base and the impact of adoption of IFRS 15.

Subscriber Base, Average Revenue Per User, or ARPU, and Churn Rates

The following table shows our wireless subscriber base as at December 31, 2018 and 2017:

	2018	2017	Increase (Decrease) Amount	%
Mobile subscriber base				
Smart[1]	21,956,289	21,821,441	134,848	1
Prepaid	20,532,174	20,433,351	98,823	—
Postpaid	1,424,115	1,388,090	36,025	3
TNT	31,893,641	28,807,964	3,085,677	11
Sun[1]	6,649,087	7,664,503	(1,015,416)	(13)
Prepaid	5,753,163	6,535,331	(782,168)	(12)
Postpaid	895,924	1,129,172	(233,248)	(21)
Total mobile subscribers	60,499,017	58,293,908	2,205,109	4

[1] Includes mobile broadband subscribers.

Our current policy is to recognize a prepaid subscriber as active only when the subscriber activates and uses the SIM card. Beginning the second quarter of 2017, a prepaid mobile subscriber is considered inactive if the subscriber does not reload within 90 days after the full usage or expiry of the last reload, revised from the previous 120 days.

In compliance with Memorandum Circular (MC) No. 05-12-2017 issued jointly by the NTC, Department of Information and Communications Technology, and Department of Trade and Industry, Smart, TNT, and Sun extended the validity of prepaid loads to one year. Beginning January 2018, the one-year validity was implemented particularly on prepaid loads worth Php300 and above. In July 2018, the one-year validity was fully implemented for all prepaid loads, including denominations lower than Php300, regardless of the validity period printed on the physical cards already out in the market.

The average monthly churn rates for Smart Prepaid subscribers were 6.5% and 6.7% in 2018 and 2017, respectively, while the average monthly churn rates for TNT subscribers were 5.8% and 6.8% in 2018 and 2017, respectively. The average monthly churn rates for Sun Prepaid subscribers were 6.1% and 7.7% in 2018 and 2017, respectively.

The average monthly churn rates for Smart Postpaid subscribers were 2.0% and 2.3% in 2018 and 2017, respectively, and 3.5% in each of 2018 and 2017, for Sun Postpaid subscribers.

The following table summarizes our average monthly ARPUs for the years ended December 31, 2018 and 2017:

Gross[1]		Increase (Decrease)		Net[2]		Increase (Decrease)	
2018	2017	Amount	%	2018	2017	Amount	%

	(in Pesos)				(in Pesos)			
Prepaid								
Smart	130	118	12	10	118	108	10	9
TNT	79	81	(2)	(2)	71	74	(3)	(4)
Sun	89	88	1	1	81	82	(1)	(1)
Postpaid								
Smart	836	1,004	(168)	(17)	819	972	(153)	(16)
Sun	403	422	(19)	(5)	401	418	(17)	(4)

(1) Gross monthly ARPU is calculated by dividing gross mobile service revenues for the month, including interconnection income but excluding inbound roaming revenues, gross of discounts, and content provider costs, by the average number of subscribers in the month.

(2) Net monthly ARPU is calculated by dividing gross mobile service revenues for the month, including interconnection income, but excluding inbound roaming revenues, net of discounts and content provider costs, by the average number of subscribers in the month.

Home Broadband

Revenues from our Home Broadband services decreased by Php2,401 million, or 94%, to Php155 million in 2018 from Php2,556 million in 2017, mainly due to the transfer of Ultera and WiMAX businesses to PLDT.

MVNO and Others

Revenues from our MVNO and other services increased by Php1,333 million to Php1,750 million in 2018 from Php417 million in 2017, primarily due to facility service fees relating to Ultera, WiMAX and Shops.Work Unplugged, or SWUP, in 2018, partially offset by lower revenue contribution from MVNOs of PLDT Global.

Non-Service Revenues

Our wireless non-service revenues consist of sale of mobile handsets, mobile broadband data modems, tablets and accessories. Our wireless non-service revenues increased by Php1,768 million, or 34%, to Php6,928 million in 2018 from Php5,160 million in 2017, primarily due to the impact of adoption of IFRS 15.

Expenses

Expenses associated with our Wireless business segment amounted to Php82,246 million in 2018, a decrease of Php15,405 million, or 16%, from Php97,651 million in 2017. The decrease was mainly attributable to lower depreciation and amortization, asset impairment and interconnection costs, partially offset by higher cost of sales and services, and selling, general and administrative expenses. As a percentage of our total wireless revenues, expenses associated with our Wireless business segment accounted for 91% and 105% in the years ended December 31, 2018 and 2017, respectively.

The following table summarizes the breakdown of our total wireless-related expenses for the years ended December 31, 2018 and 2017 and the percentage of each expense item in relation to the total:

					Increase (Decrease)	
	2018	%	2017	%	Amount	%
	(Pesos in millions)					
Selling, general and administrative expenses	39,693	48	39,584	41	109	—
Depreciation and amortization	24,778	30	36,776	38	(11,998)	(33)
Cost of sales and services	9,989	12	8,814	9	1,175	13
Interconnection costs	4,467	6	6,373	6	(1,906)	(30)
Provisions	2,173	3	2,191	2	(18)	(1)
Asset impairment	1,146	1	3,913	4	(2,767)	(71)
Total	82,246	100	97,651	100	(15,405)	(16)

Selling, general and administrative expenses increased by Php109 million to Php39,693 million, primarily due to higher taxes and licenses, repairs and maintenance, and compensation and employee benefits, partly offset by lower professional and other contracted services, rent, and selling and promotions expenses.

Depreciation and amortization charges decreased by Php11,998 million, or 33%, to Php24,778 million, on account of lower depreciation due to shortened life of certain data network platform and other technology equipment resulting from the ongoing transformation projects which commenced in the previous year, to improve and simplify the network and systems applications.

Cost of sales and services increased by Php1,175 million, or 13%, to Php9,989 million, primarily due to higher issuances of mobile handsets and cost of SIM packs.

Interconnection costs decreased by Php1,906 million, or 30%, to Php4,467 million, primarily due to lower interconnection cost on domestic voice and SMS services, mainly due to the impact of reduction in interconnection rates for voice and SMS, as well as lower interconnection charges on international SMS and data roaming services.

Provisions decreased by Php18 million, or 1%, to Php2,173 million, primarily due to lower provision for inventory obsolescence.

Asset impairment decreased by Php2,767 million, or 71%, to Php1,146 million primarily due to the impairment of certain network equipment in 2017 which were rendered obsolete due to technological advancements as a result of continuing network transformation projects.

Other Income (Expenses)

The following table summarizes the breakdown of our total wireless-related other income (expenses) for the years ended December 31, 2018 and 2017:

	2018	2017	Change Amount	%
	(Pesos in millions)			
Other Income (Expenses):				
Financing costs – net	(1,865)	(2,247)	382	17
Foreign exchange losses – net	(125)	(57)	(68)	(119)
Equity share in net earnings (losses) of associates	62	(129)	191	148
Gain on derivative financial instruments – net	449	282	167	59
Interest income	719	305	414	136
Other income – net	135	1,923	(1,788)	(93)
Total	(625)	77	(702)	(912)

Our Wireless business segment's other expenses amounted to Php625 million in 2018, a change of Php702 million as against other income of Php77 million in 2017, primarily due to the net effects of the following:
(i) lower other income – net by Php1,788 million mainly due to lower income from consultancy and other miscellaneous income, partly offset by lower impairment on Smart's investment in AFPI; (ii) higher net foreign exchange losses by Php68 million; (iii) higher net gains on derivative financial instruments by Php167 million; (iv) equity share in net earnings of associates of Php62 million in 2018 as against equity share in net losses of Php129 million in 2017; (v) lower net financing costs by Php382 million mainly due to higher capitalized interest, lower financing charges and lower weighted average loan principal amount, partly offset by higher weighted average interest rates; and (vi) higher interest income by Php414 million mainly due to an increase in principal amount of temporary cash investment, higher weighted average interest rates and higher weighted average rate of the Philippine peso relative to the U.S. dollar.

Provision for (Benefit from) Income Tax

Provision for income tax amounted to Php1,333 million in 2018, a change of Php4,120 million as against benefit from income tax of Php2,787 million, which includes tax impact of depreciation due to shortened life of property and equipment and noncurrent asset impairment recognized in 2017.

Net Income (Loss)

As a result of the foregoing, our Wireless business segment's net income increased by Php7,940 million to Php5,725 million in 2018 as against net losses of Php2,215 million in 2017.

Adjusted EBITDA

Our Wireless business segment's Adjusted EBITDA decreased by Php2,160 million, or 6%, to Php34,235 million in 2018 from Php36,395 million in 2017. Adjusted EBITDA margin decreased to 41% in 2018 from 42% in 2017.

Core Income

Our Wireless business segment's core income decreased by Php52 million to Php9,760 million in 2018 from Php9,812 million in 2017 on account of lower Adjusted EBITDA, higher provision for income tax and lower other miscellaneous income, partially offset by lower depreciation expense and net financing costs.

Fixed Line

Revenues

Revenues generated from our Fixed Line business segment amounted to Php85,222 million in 2018, an increase of Php6,881 million, or 9%, from Php78,341 million in 2017.

The following table summarizes our total revenues by service from our Fixed Line business segment for the years ended December 31, 2018 and 2017:

	2018	%	2017	%	Increase (Decrease) Amount	%
	(Pesos in millions)					
Service Revenues:						
Voice	25,178	30	28,500	36	(3,322)	(12)
Data	54,770	64	44,294	57	10,476	24
Miscellaneous	1,700	2	1,963	2	(263)	(13)
	81,648	96	74,757	95	6,891	9
Non-Service Revenues:						
Sale of computers, phone units and SIM packs, and point-product sales	3,574	4	3,584	5	(10)	—
Total Fixed Line Revenues	85,222	100	78,341	100	6,881	9

Service Revenues

Our fixed line service revenues increased by Php6,891 million, or 9%, to Php81,648 million in 2018 from Php74,757 million in 2017, due to higher revenues from our data services, partially offset by lower voice and miscellaneous service revenues. In the second quarter of 2018, the revenue split allocation between voice and data for our fixed line bundled plans was revised, in favor of data, to reflect the result of a recent network usage study from our Fixed Line business segment.

Voice Services

Revenues from our voice services decreased by Php3,322 million, or 12%, to Php25,178 million in 2018 from Php28,500 million in 2017, primarily due to lower revenues from local exchange and domestic services. The decline was partly due to the continued popularity of services such as Skype, Viber, Line, Facebook Messenger, Google Talk and WhatsApp, offering free OTT calling services, and other similar services, as well as the impact of the revised revenue split allocation. The percentage contribution of voice service revenues to our fixed line service revenues accounted for 31% and 38% for the years ended December 31, 2018 and 2017, respectively.

Data Services

The following table shows information of our data service revenues for the years ended December 31, 2018 and 2017:

	2018	2017	Increase Amount	%
	(Pesos in millions)			
Data service revenues	54,770	44,294	10,476	24
Home broadband	26,733	18,054	8,679	48
Corporate data and ICT	28,037	26,240	1,797	7

Our data services posted revenues of Php54,770 million in 2018, an increase of Php10,476 million, or 24%, from Php44,294 million in 2017, primarily due to higher home broadband revenues from DSL and Fibr, higher corporate data and leased lines, and higher data center and ICT revenues. The percentage contribution of this service segment to our fixed line service revenues accounted for 67% and 59% for the years ended December 31, 2018 and 2017, respectively.

Home Broadband

Home broadband data revenues amounted to Php26,733 million in 2018, an increase of Php8,679 million, or 48%, from Php18,054 million in 2017. This growth is driven by increasing demand for broadband services which the company is providing through its existing copper network and a nationwide roll-out of its fiber-to-the-home, or FTTH, network, and the transfer of Ultera and WiMAX businesses from SBI, as well as the impact of the revised revenue split allocation. Home broadband revenues accounted for 49% and 41% of total data service revenues in the years ended December 31, 2018 and 2017, respectively. In 2018, PLDT's FTTH nationwide network rollout has passed 6.3 million homes.

Corporate Data and ICT

Corporate data services amounted to Php23,991 million in 2018, an increase of Php1,102 million, or 5%, as compared with Php22,889 million in 2017, mainly due to sustained market traction of internet services, such as Dedicated Internet Access and FibrBiz, as a result of higher internet connectivity requirements, and key Multiprotocol Label Switching solutions, such as IP-VPN, Metro Ethernet and Shops.Work. Corporate data revenues accounted for 44% and 52% of total data services in the years ended December 31, 2018 and 2017, respectively.

ICT revenues increased by Php695 million, or 21%, to Php4,046 million in 2018 from Php3,351 million in 2017 mainly due to higher revenues from colocation and managed IT services. The percentage contribution of this service segment to our total data service revenues accounted for 7% in each of the years ended December 31, 2018 and 2017.

Miscellaneous Services

Miscellaneous service revenues are derived mostly from rentals and management fees. These service revenues decreased by Php263 million, or 13%, to Php1,700 million in 2018 from Php1,963 million in 2017 mainly due to lower management fees. The percentage contribution of miscellaneous service revenues to our total fixed line service revenues accounted for 2% and 3% for the years ended December 31, 2018 and 2017, respectively.

Non-service Revenues

Non-service revenues decreased by Php10 million to Php3,574 million in 2018 from Php3,584 million in 2017, primarily due to lower sale of hardware and software, and Fabtab for myDSL retention, partly offset by higher sale of computer bundles, managed ICT equipment, and Ultera devices, combined with the impact of IFRS 15 adjustment.

Expenses

Expenses related to our Fixed Line business segment totaled Php77,782 million in 2018, an increase of Php13,918 million, or 22%, as compared with Php63,864 million in 2017. The increase was primarily due to higher depreciation and amortization, selling, general and administrative expenses, provisions, asset impairment, and interconnection costs. As a percentage of our total fixed line revenues, expenses associated with our Fixed Line business segment accounted for 91% and 82% for the years ended December 31, 2018 and 2017, respectively.

The following table shows the breakdown of our total fixed line-related expenses for the years ended December 31, 2018 and 2017 and the percentage of each expense item in relation to the total:

	2018	%	2017	%	Increase (Decrease) Amount	%
	(Pesos in millions)					
Selling, general and administrative expenses	41,065	53	37,390	59	3,675	10
Depreciation and amortization	22,303	29	15,001	23	7,302	49
Interconnection costs	5,145	7	4,587	7	558	12
Cost of sales and services	4,523	6	4,788	8	(265)	(6)
Provisions	3,547	4	2,098	3	1,449	69
Asset impairment	1,199	1	—	—	1,199	100
Total	77,782	100	63,864	100	13,918	22

Selling, general and administrative expenses increased by Php3,675 million, or 10%, to Php41,065 million primarily due to higher professional and other contracted services, repairs and maintenance, rent, and selling and promotions expenses, partly offset by lower compensation and employee benefits, mainly as a result of lower incentive plan and MRP costs.

Depreciation and amortization charges increased by Php7,302 million, or 49%, to Php22,303 million mainly due to a higher depreciable asset base and depreciation due to shortened life of certain network equipments resulting from the modernization of facilities to adopt more effective technologies, such as VVDSL and FTTH.

Interconnection costs increased by Php558 million, or 12%, to Php5,145 million, primarily due to higher international interconnection costs, as a result of an increase in international inbound calls that terminated to other domestic carriers, partly offset by lower domestic interconnection costs.

Cost of sales and services decreased by Php265 million, or 6%, to Php4,523 million, primarily due to lower cost of hardware and software, Fabtab for myDSL retention, and TVolution units, partly offset by higher cost of services.

Provisions increased by Php1,449 million, or 69%, to Php3,547 million, primarily due to higher provision for doubtful accounts mainly due to lower collection efficiency by 1% and provision for unbilled receivables relating to devices, as well as and higher provision for inventory obsolescence due to provision for network materials resulting from the modernization of facilities.

Asset impairment amounted to Php1,199 million in 2018 primarily due to the impairment provision for property and equipment of Digitel.

Other Income (Expenses)

The following table summarizes the breakdown of our total fixed line-related other income (expenses) for the years ended December 31, 2018 and 2017:

			Change	
	2018	2017	Amount	%
	(Pesos in millions)			
Other Income (Expenses):				
Financing costs – net	(5,195)	(5,106)	(89)	(2)
Foreign exchange losses	(58)	(98)	40	41
Equity share in net earnings of associates	171	44	127	289
Gains on derivative financial instruments – net	355	251	104	41
Interest income	812	695	117	17
Other income – net	3,870	891	2,979	334
Total	(45)	(3,323)	3,278	99

Our Fixed Line business segment’s other expenses amounted to Php45 million in 2018, a decrease of Php3,278 million, or 99%, from Php3,323 million in 2017, mainly due to the combined effects of the following: (i) higher other income – net by Php2,979 million, mainly due to the impairment of investment in Hastings PDRs in 2017 while nil in 2018, and higher other miscellaneous income; (ii) higher equity share in net earnings of associates by Php127 million; (iii) higher interest income by Php117 million; (iv) higher net gains on derivative financial instruments by Php104 million; (v) lower foreign exchange losses by Php40 million; and (vi) higher net financing costs by Php89 million.

Provision for Income Tax

Provision for income tax amounted to Php1,336 million in 2018, a decrease of Php2,344 million, or 64%, from Php3,680 million in 2017, mainly due to lower taxable income.

Net Income

As a result of the foregoing, our Fixed Line business segment's registered a net income of Php6,059 million in 2018, a decrease of Php1,415 million, or 19%, as compared with Php7,474 million in 2017.

Adjusted EBITDA

Our Fixed Line business segment's Adjusted EBITDA increased by Php1,397 million, or 5%, to Php30,875 million in 2018 from Php29,478 million in 2017. Adjusted EBITDA margin decreased to 38% in 2018 from 39% in 2017.

Core Income

Our Fixed Line business segment's core income decreased by Php1,921 million, or 22%, to Php6,925 million in 2018 from Php8,846 million in 2017, primarily as a result of higher depreciation expense, partially offset by higher Adjusted EBITDA and lower provision for income tax.

Others

Revenues

Revenues generated from our Other business segment, which include revenues from digital platforms and mobile financial services, amounted to Php1,138 million in 2018, a decrease of Php141 million, or 11%, from Php1,279 million in the same period in 2017, due mainly to the deconsolidation of VIH.

Expenses

Expenses related to our Other business segment totaled Php4,093 million in 2018, an increase of Php1,319 million, or 48%, from Php2,774 million in the same period in 2017, due to higher selling, general and administrative expenses of VIH.

Other Income (Expenses)

The following table summarizes the breakdown of our Other business segment's other income (expenses) for the years ended December 31, 2018 and 2017:

	2018	2017	Change Amount	%
	(Pesos in millions)			
Other Income (Expenses):				
Gain on deconsolidation of VIH	12,054	—	12,054	100
Interest income	536	655	(119)	(18)
Gain on derivative financial instruments – net	282	—	282	100
Financing costs – net	(131)	(214)	83	39
Equity share in net earnings (losses) of associates and joint ventures	(320)	2,991	(3,311)	(111)
Foreign exchange losses	(588)	(256)	(332)	(130)
Other income – net	266	7,354	(7,088)	(96)
Total	12,099	10,530	1,569	15

Our Other business segment's other income amounted to Php12,099 million in 2018, an increase of Php1,569 million, or 15%, from Php10,530 million in 2017, primarily due to the combined effects of the following: (i) gain on the deconsolidation of VIH of Php12,054 million in 2018; (ii) net gains on derivative financial instruments of Php282 million in 2018; (iii) lower net financing costs by Php83 million; (iv) lower interest income by Php119 million; (v) higher net foreign exchange losses by Php332 million; and (vi) equity share in net losses of associates and joint ventures of Php320 million in 2018 as against equity share in net earnings of associates and joint ventures of Php2,991 million in 2017 mainly due to sale of Beacon shares and SPi Global in 2017; and (vii) lower other income – net by Php7,088 million mainly due to gain on sale of Beacon shares and gain on conversion of iflix convertible notes in 2017, and unrealized loss on fair value of iflix investment in 2018, partly offset by realized gain on fair value of Rocket Internet investment in 2018.

Net Income

As a result of the foregoing, our Other business segment registered a net income of Php7,971 million in 2018, a decrease of Php854 million, or 10%, from Php8,825 million in 2017.

Adjusted EBITDA

Our Other business segment's Adjusted EBITDA amounted to negative Php2,688 million in 2018, an increase of Php1,381 million, or 106%, from negative Php1,307 million in 2017.

Core Income

Our Other business segment's core income amounted to Php9,952 million in 2018, an increase of Php324 million, or 3%, as compared with Php9,628 million in 2017, primarily as a result of higher miscellaneous income, partially offset by equity share in net losses of associates and joint ventures in 2018, higher negative Adjusted EBITDA and higher provision for income tax.

Years ended December 31, 2017 and 2016

On a Consolidated Basis

Revenues

We reported consolidated revenues of Php159,926 million in 2017, a decrease of Php5,336 million, or 3%, as compared with Php165,262 million in 2016, primarily due to lower revenues from mobile and home broadband services in our Wireless business segment, partially offset by higher revenues from data services in our Fixed Line business segment.

The following table shows the breakdown of our consolidated revenues by services for the years ended December 31, 2017 and 2016:

	Wireless	Fixed Line	Others	Inter-segment Transactions	Consolidated
		(Pesos in millions)			
For the year ended December 31, 2017					
Service Revenues					
Wireless	87,412			(1,284)	86,128
Mobile	84,439			(1,273)	83,166
Home Broadband	2,556			(9)	2,547
MVNO and others	417			(2)	415
Fixed Line		74,757		(10,946)	63,811
Voice		28,500		(3,204)	25,296
Data		44,294		(6,849)	37,445
Home broadband		18,054		(245)	17,809
Corporate data and ICT		26,240		(6,604)	19,636
Miscellaneous		1,963		(893)	1,070
Others			1,256	(30)	1,226
Total Service Revenues	87,412	74,757	1,256	(12,260)	151,165
Non-Service Revenues					
Sale of computers, phone units, mobile handsets and subscriber identification module, or SIM-packs	5,160	2,724	23	(18)	7,889
Point-product sales	—	860	—	12	872
Total Non-Service Revenues	5,160	3,584	23	(6)	8,761
Total Revenues	92,572	78,341	1,279	(12,266)	159,926

For the year ended December 31, 2016					
Service Revenues					
Wireless	99,854			(1,448)	98,406
Mobile	96,497			(1,431)	95,066
Home Broadband	2,772			(14)	2,758
MVNO and others	585			(3)	582
Fixed Line		69,006		(10,920)	58,086
Voice		29,630		(4,128)	25,502
Data		37,711		(5,984)	31,727
Home broadband		14,896		(167)	14,729
Corporate data and ICT		22,815		(5,817)	16,998
Miscellaneous		1,665		(808)	857
Others			748	(30)	718
Total Service Revenues	99,854	69,006	748	(12,398)	157,210
Non-Service Revenues					
Sale of computers, phone units, mobile handsets and SIM-packs	4,233	2,909	99	(2)	7,239
Point-product sales	—	813	—	—	813
Total Non-Service Revenues	4,233	3,722	99	(2)	8,052
Total Revenues	104,087	72,728	847	(12,400)	165,262

The following table shows the breakdown of our consolidated revenues by business segment for the years ended December 31, 2017 and 2016:

					Change	
	2017	%	2016	%	Amount	%
	(Pesos in millions)					
Wireless	92,572	58	104,087	63	(11,515)	(11)
Fixed line	78,341	49	72,728	44	5,613	8
Others	1,279	1	847	1	432	51
Inter-segment transactions	(12,266)	(8)	(12,400)	(8)	134	1
Consolidated	159,926	100	165,262	100	(5,336)	(3)

Expenses

Consolidated expenses increased by Php9,856 million, or 7%, to Php150,415 million in 2017 from Php140,559 million in 2016, primarily due to higher expenses in our Wireless business segment resulting from higher depreciation and amortization, and asset impairment.

The following table shows the breakdown of our consolidated expenses by business segment for the years ended December 31, 2017 and 2016:

	2017	%	2016	%	Change Amount	%
	(Pesos in millions)					
Wireless	97,651	65	91,623	65	6,028	7
Fixed line	63,864	42	61,285	44	2,579	4
Others	2,774	2	1,623	1	1,151	71
Inter-segment transactions	(13,874)	(9)	(13,972)	(10)	98	1
Consolidated	150,415	100	140,559	100	9,856	7

Other Income (Expenses)

Consolidated other income amounted to Php5,058 million in 2017, a change of Php7,690 million as against other expenses of Php2,632 million in 2016, primarily due to lower impairment on the Rocket Internet investment, higher equity share in net earnings of Asia Outsourcing Beta Limited, or Beta, resulting from the gain on sale of SPi Technologies, Inc., or SPi, and gain on conversion of iflix convertible notes in our Other business segment and lower net foreign exchange losses in our Wireless business segment, partially offset by impairment of investment in Hastings PDRs and lower gain on sale of properties in our Fixed Line business segment.

The following table shows the breakdown of our consolidated other income (expenses) by business segment for the years ended December 31, 2017 and 2016:

	2017	2016	Change Amount	%
	(Pesos in millions)			
Wireless	77	(3,103)	3,180	102
Fixed line	(3,323)	(291)	(3,032)	(1,042)
Others	10,530	2,334	8,196	351
Inter-segment transactions	(2,226)	(1,572)	(654)	(42)
Consolidated	5,058	(2,632)	7,690	292

Net Income (Loss)

Consolidated net income decreased by Php6,696 million, or 33%, to Php13,466 million in 2017, from Php20,162 million in 2016, primarily due to the Php12,973 million decrease in net income in our Wireless business segment, partially offset by Php7,555 million increase in net income from our Other business segment. Our consolidated basic and diluted EPS decreased to Php61.61 for the year ended December 31, 2017 from Php92.33 in 2016. Our weighted average number of outstanding common shares was approximately 216.06 million in each of 2017 and 2016.

The following table shows the breakdown of our consolidated net income by business segment for the years ended December 31, 2017 and 2016:

	2017	%	2016	%	Change Amount	%
	(Pesos in millions)					
Wireless	(2,215)	(17)	10,618	53	(12,833)	(121)
Fixed line	7,474	56	8,134	40	(660)	(8)
Others	8,825	66	1,410	7	7,415	526
Inter-segment transactions	(618)	(5)	—	—	(618)	(100)
Consolidated	13,466	100	20,162	100	(6,696)	(33)

Adjusted EBITDA

Our consolidated Adjusted EBITDA amounted to Php66,174 million in 2017, an increase of Php5,013 million, or 8%, as compared with Php61,161 million in 2016, primarily due to improved Adjusted EBITDA in our Fixed Line and Wireless business segments.

The following table shows the breakdown of our consolidated Adjusted EBITDA by business segment for the years ended December 31, 2017 and 2016:

	2017	%	2016	%	Change Amount	%
	(Pesos in millions)					
Wireless	36,395	55	32,915	54	3,480	11
Fixed line	29,478	45	26,950	44	2,528	9
Others	(1,307)	(2)	(276)	—	(1,031)	(374)
Inter-segment transactions	1,608	2	1,572	2	36	2
Consolidated	66,174	100	61,161	100	5,013	8

Core Income

Our consolidated core income amounted to Php27,668 million in 2017, a decrease of Php189 million, or 1%, as compared with Php27,857 million in 2016 primarily due to a decrease in core income from our Wireless business segment as a result of higher depreciation expense, partially offset by higher core income in each of our Other and Fixed Line business segments. Our consolidated basic and diluted core EPS, decreased to Php127.79 in 2017 from Php128.66 in 2016.

The following table shows the breakdown of our consolidated core income by business segment for the years ended December 31, 2017 and 2016:

	2017	%	2016	%	Change Amount	%
	(Pesos in millions)					
Wireless	9,812	35	12,275	44	(2,463)	(20)
Fixed line	8,846	32	7,746	28	1,100	14
Others	9,628	35	7,836	28	1,792	23
Inter-segment transactions	(618)	(2)	—	—	(618)	(100)
Consolidated	27,668	100	27,857	100	(189)	(1)

On a Business Segment Basis

Wireless

Revenues

We generated revenues of Php92,572 million from our wireless business in 2017 a decrease of Php11,515 million, or 11%, from Php104,087 million in 2016.

The following table summarizes our total revenues by service from our wireless business for the years ended December 31, 2017 and 2016:

					Decrease	
	2017	%	2016	%	Amount	%
	(Pesos in millions)					
Service Revenues:						
Mobile	84,439	91	96,497	93	(12,058)	(12)
Home Broadband	2,556	3				