TOWER SEMICONDUCTOR LTD
Form 20-F
May 17, 2011

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 20-F

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2010 Commission File number: 0-24790

TOWER SEMICONDUCTOR LTD.
(Exact name of registrant as specified in its charter and translation of registrant's name into English)

Israel
(Jurisdiction of incorporation or organization)
Ramat Gavriel Industrial Park
P.O. Box 619, Migdal Haemek 23105, Israel

(Address of principal executive offices)

Nati Somekh Gilboa, +972-4-6506109, natiso@towersemi.com,
Ramat Gavriel Industrial Park P.O.Box 619, Migdal Haemek 23105, Israel

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
Ordinary Shares, par value New Israeli Shekels 1.00 per share	NASDAQ Global Market
Convertible Debentures	NASDAQ Capital Market

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 of the close of the period covered by the annual report: 286,047,937 Ordinary Shares

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes o No x

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 o No x

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 x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (section 229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes ¨ No ¨

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

Large accelerated filer ¨ Accelerated filer ¨ Non-accelerated filer x

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

US GAAP x	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 o Item 18 o

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 o No x

FORWARD LOOKING STATEMENTS

This annual report on Form 20-F includes certain "forward-looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934. The use of the words "projects," "expects," "may," "plans" or "intends," or words similar import, identifies a statement as "forward-looking". There can be no assurance, however, that actual results will not differ materially from our expectations or projections. Factors that could cause actual results to differ from our expectations or projections include the risks and uncertainties relating to our business described in this annual report at "Item 3. Key Information--Risk Factors".

EXPLANATORY INFORMATION

All references herein to "dollars" or "$" are to United States dollars, and all references to "Shekels" or "NIS" are to New Israeli Shekels.

On September 19, 2008, we completed the merger with Jazz Technologies, Inc. ("Jazz Technologies"), the sole stockholder of Jazz Semiconductor, Inc. ("Jazz Semiconductor"), an independent semiconductor foundry focused on specialty process technologies for the manufacture of analog intensive mixed-signal semiconductor devices. As a result of this transaction, Jazz Technologies became a wholly owned subsidiary of Tower. Jazz Technologies and Jazz Semiconductor and its wholly-owned subsidiaries are collectively referred to in this report as "Jazz".

Following the merger with Jazz, our financial statements include Jazz's results commencing September 19, 2008 and our consolidated balance sheets as of December 31, 2010, 2009 and 2008 includes Jazz's balances as of such dates.

As used in this annual report, "we," "us," "our," and "the Company" and words of similar import, when used with reference to periods on or after September 19, 2008, refer to Tower Semiconductor Ltd., together with its direct wholly-owned subsidiaries including Jazz, and when used with reference to periods prior to such date refer to Tower and its subsidiaries other than Jazz.

Manufacturing or production capacity refers to installed equipment capacity in our facilities and is a function of the process technology and product mix being manufactured because certain processes require more processing steps than others. All information herein with respect to the wafer capacity of our manufacturing facilities is based upon our estimate of the effectiveness of the manufacturing equipment and processes in use or expected to be in use during a period and the actual or expected process technology and product mix for such period. Unless otherwise specifically stated, all references herein to "wafers" with respect to Fab 1 capacity are to 150-mm wafers and with respect to Fab 2 and Jazz capacity are to 200-mm wafers.

JAZZ SEMICONDUCTOR® is a registered trademark of Jazz in the U.S.

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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

Selected Financial Data

This section presents our selected historical financial data. You should carefully read the financial statements included in this annual report, including the notes to the financial statements. The selected data in this section is not intended to replace the financial statements.

We derived the selected statement of operations data and other financial data for the years ended December 31, 2010, 2009 and 2008, and selected balance sheet data as of December 31, 2010 and 2009 from the audited financial statements included in this annual report. Those financial statements were audited by Brightman Almagor Zohar & Co., a member firm of Deloitte Touche Tohmatsu, independent registered public accounting firm. We derived the selected statement of operations data and other financial data for the years ended December 31, 2007 and 2006 and the selected balance sheet data as of December 31, 2008, 2007 and 2006 from our audited financial statements that are not included in this annual report. Our management believes that the financial statements included in this annual report contain all adjustments needed to present fairly the information included therein.

Following our merger with Jazz, our consolidated financial statements include Jazz's results commencing September 19, 2008, and our consolidated balance sheets as of December 31, 2010 and 2009 include Jazz's balances as of such dates.

	Year Ended December 31,				
	2010	2009	2008	2007	2006
	(in thousands, except per share data)				
Statement of Operations Data:					
Revenues	$509,262	$298,812	$251,659	$230,853	$187,438
Cost of revenues	402,077	325,310	296,513	284,771	267,520
Gross profit (loss)	107,185	(26,498)	(44,854)	(53,918)	(80,082)
Research and development	23,876	23,375	14,969	13,790	15,048
Marketing, general and administrative	39,986	31,943	33,223	31,604	25,831
Write-off of in-process research and development	--	--	1,800	--	--
Merger related costs	--	--	520	--	--
Fixed assets impairment	--	--	120,538	--	--
Operating profit (loss)	43,323	(81,816)	(215,904)	(99,312)	(120,961)
Financing expense, net	(72,925)	(45,710)	(17,566)	(34,976)	(47,563)
Gain on debt restructuring	--	--	130,698	--	--
Other income (expense), net	65	2,045	(918)	92	597
Loss before income tax expenses	(29,537)	(125,481)	(103,690)	(134,196)	(167,927)

Income tax benefit (expense)	(12,830)	5,022	(1,455)	--	--
Loss for the year	$(42,367)	$(120,459)	$(105,145)	$(134,196)	$(167,927)
Basic loss per ordinary share	$(0.18)	$(0.71)	$(0.78)	$(1.13)	$(2.03)
Other Financial Data:					
Depreciation and amortization	$143,023	$143,404	$138,808	$154,343	$171,743

	Year Ended December 31,				
	2010	2009	2008	2007	2006
			(in thousands)		
Selected Balance Sheet Data:					
Cash and cash equivalents, short-term interest-bearing deposits and designated deposits	$198,382	$81,795	$34,905	$44,536	$40,940
Working capital	72,053	70,113	24,133	46,711	29,973
Total assets	801,728	650,837	706,793	686,782	714,132
Short-term bank debt and current maturities of debentures	122,179	7,000	15,330	7,887	6,902
Long-term debt from banks	111,882	187,606	222,989	379,314	432,430
Debentures	247,598	241,207	208,512	117,460	83,863
Long-term customers' advances	9,257	8,262	11,138	27,983	46,042
Shareholders' equity	117,782	56,014	111,567	44,709	39,516
Weighted average number of ordinary shares outstanding	235,320	170,460	134,749	118,857	82,581
Number of shares outstanding	265,536	198,961	160,026	124,226	100,752

Risk Factors

Our business faces many risks. Any of the risks discussed below could have a material impact on our business, financial condition and operating results.

Risks Affecting Our Business

We have a material amount of debt which may have significant negative consequences, and there is no assurance that we will be able to obtain sufficient funding sources in a timely manner to allow us to fully or partially repay our debt obligations and other liabilities.

We have a material amount of debt and other liabilities. As of December 31, 2010, Tower had (i) approximately $161 million of outstanding bank debt under our amended facility agreement, of which approximately $18 million was presented as short term and (ii) approximately $231 million of debt in respect of outstanding convertible and non-convertible debentures, to be repaid between 2011 to 2016, of which approximately $51 million was presented as short term. In addition, as of December 31, 2010, Jazz had (i) approximately $22 million of outstanding bank debt under its bank loan agreement, of which approximately $12 million was presented as short term debt, and (ii) approximately $137 million of debt from outstanding notes to be repaid in 2011 and in 2015, of which approximately $41 million was presented as short term. Tower has not guaranteed any of Jazz's debt, including Jazz's debt under its bank loan and Jazz's debt to its note holders and Jazz has not guaranteed any of Tower's debt, including Tower's debt under its bank loan and debentures debt.

Our debt and liabilities could have significant negative consequences, including:

- requiring the use of a substantial portion of our cash flow from operating activities to service our indebtedness rather than investing our cash flows to fund our growth plans, working capital and capital expenditures;

- increasing our vulnerability to adverse economic and industry conditions;

- limiting our ability to obtain additional financing;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete;
- placing us at a competitive disadvantage with respect to less leveraged competitors and competitors that have better access to capital resources;
- increasing our non-cash financing expenses due to increase in the fair value of our debt obligations, which may cause our potential gross and operating profits to result in a net loss or may increase our net loss or reduce our net profits (such non-cash appreciation in our obligations and non-cash financing expenses will either eventually be reversed or be converted into equity, or a combination thereto); and/or
- enforcement by the banks of their liens against Tower and Jazz's respective assets, as applicable (in the event of default).

In order to finance our debt and other liabilities and obligations, in addition to cash on hand and expected cash flow from our ongoing operations, we continue to explore measures to obtain funds from additional sources including debt re-financing, sales of new securities, opportunities for the sale and lease-back of a portion of Tower's real estate assets, liquidation of Jazz's holdings in HHNEC, sale of other assets, intellectual property licensing, submitting reports with the Israeli Investment Center which are yet to be reviewed and approved in order to receive the recently approved grants under our approval certificate, as well as debt and/or equity restructuring and additional alternatives to reduce our debt. However, there is no assurance that we will be able to obtain sufficient funding from the financing sources detailed above or other sources in a timely manner in order to allow us to fully or partially repay our debt and other liabilities and obligations in a timely manner and fund our growth plans, working capital needs and capital expenditure.

If we are unable to manage fluctuations in cash flow, our business and financial condition may be adversely affected.

Our working capital requirements and cash flows are subject to quarterly and yearly fluctuations, depending on a number of factors. If we are unable to manage fluctuations in cash flow, our business, operating results and financial condition may be materially adversely affected. Factors which could lead us to suffer cash flow fluctuations include:

- fluctuations in the level of revenues from our operating activities;
- fluctuations in the collection of receivables;
- timing and size of payables;
- the timing and size of capital expenditures;
- the repayment schedules of our debt obligations; and
- our ability to fulfill our obligations and meet performance milestones under our facility agreement, foundry agreements and investments center programs.

If Tower fails to comply with the repayment schedule or any other terms of its amended facility agreement and is unsuccessful in negotiating revised repayment schedule or revised terms, or if Tower fails to meet any of the covenants and financial ratios stipulated in its amended facility agreement and Tower's banks do not waive its noncompliance, Tower business may be adversely affected.

Under Tower's amended facility agreement with Bank Hapoalim B.M. and Bank Leumi Le-Israel B.M., in the event that Tower fails to comply with the repayment schedule or any other terms of its amended facility agreement and is unsuccessful in negotiating a revised repayment schedule or revised terms, or fails to meet any of the covenants and financial ratios stipulated in the amended facility agreement, and Tower's banks do not waive its noncompliance, Tower's banks may require Tower to immediately repay all outstanding loans in the amount of $146 million as of March 31, 2011, plus penalties, and the banks would be entitled to exercise the remedies available to them under the amended facility agreement, including enforcement of their lien against Tower's assets. There is no assurance that Tower will be able to generate the cash necessary to fund the scheduled payments from increased levels of cash from operations or from additional equity or debt financing or other funding sources. If Tower is not able to generate increased levels of revenue and cash from operations or raise sufficient funds in a timely manner, Tower may be unable to comply with the repayment schedule and may fail to meet covenants and financial ratios under the amended facility agreement, which may have a material adverse effect on Tower.

Israeli banking laws may impose restrictions on the total debt that Tower may borrow from its banks.

Pursuant to a directive published by the Israel Supervisor of Banks, effective March 31, 2004, Tower may be deemed part of a group of borrowers comprised of the Ofer Brothers Group, the Israel Corporation Ltd. ("Israel Corp.") and other companies which are also included in such group of borrowers pursuant to the directive, including companies under the control or deemed control of these entities. The directive imposes limitations on amounts that banks may lend to borrowers or groups of borrowers. Should Tower's banks exceed these limitations, their ability to lend additional money to Tower in the future would be limited and they may require Tower to return some or all of its outstanding borrowings (which, under Tower's amended facility agreement with its banks, were approximately $146 million in the aggregate as of March 31, 2011), which may have a material adverse effect on Tower's business, financial condition and results of operations.

Our success as a specialty foundry depends on our ability to continue to expand our capacity and market presence, including through acquisitions.

Our financial results depend, to a significant degree, upon our ability to increase our presence in the specialty foundry field and firmly entrench ourselves as a leading specialty foundry. In order to do so and thereby improve our financial position and operating cashflow we need to expand our capacity and attract new customers who will utilize such expanded capacity.

Our success at such expansion is dependent, in part, on finding applicable and fitting targets for acquisitions, successfully consummating such acquisitions and integrating them into our business.

We cannot assure you that we will be successful in finding or successfully executing such acquisitions or that it will achieve the expected results.

Our reliance on acquisitions, such as the proposed acquisition of the Japan fab from Micron Technology Inc, as a means of growth involves risks that could adversely affect our future revenues and operating results. For example:

- We may fail to identify acquisitions that would enable us to execute our business strategy.

- We compete with specialty foundries who may bid against us to acquire potential targets. This competition may result in decreased availability of, or increased prices for, suitable acquisition candidates.

- We may not be able to obtain the necessary regulatory approvals, or we may not be able to obtain the necessary approvals from our lender banks, and as a result, or for other reasons, we may fail to consummate an announced acquisition.

- Potential acquisitions may divert management's attention away from our existing business operations, resulting in the loss of key customers and/or personnel and exposing us to unanticipated liabilities.

- We may fail to integrate acquisitions successfully in accordance with our business strategy or achieve expected synergies.

- We may not be able to retain experienced management and skilled employees from the businesses we acquire and, if we cannot retain such personnel, we may not be able to attract new skilled employees and experienced management to replace them.

- We may purchase a company that has excessive known or unknown contingent liabilities, including, among others, patent infringement or product liability claims.

If we fail to sign and close the definitive agreements currently being negotiated with Micron Technology for the acquisition of its Japan fab in Nishiwaki, and we do not find alternative capacity and/or acquisition target, it may negatively affect our growth plans and may further cause a loss of current or potential customers whose future business with us is dependent on the added capacity.

On April 4, 2011 we announced the signing of a term sheet to acquire a 60,000 wafers per month capacity Fab owned by Micron Technology Inc. in Nishiwaki, Japan. We are currently negotiating and drafting the definitive agreements. There is no assurance when, if at all, this term sheet will materialize into definitive agreements, to be followed by the closing of the acquisition. If we fail to sign and close the definitive agreements currently in negotiations with Micron Technology Inc., for the acquisition of its fab in Nishiwaki, Japan and we will not find alternative capacity and/or acquisition target, it may negatively effect our growth plans and may further cause a loss of current or potential customers whose future business with us in dependent on the added capacity represented by the new fab acquisition.

If we succeed to sign and close the definitive agreement for acquisition of Micron Technology, but do not succeed in achieving the anticipated benefits of the acquisition, it may negatively affect our business, growth plans and may further cause a loss of current or potential customers whose business is dependent on the added capacity; further, our plans to ramp-up the Nishiwaki Fab will require significant investment for capital expenditures , the funds for which may not be available, thereby having an adverse effect on our operations and business.

On April 4, 2011 we announced the signing of a term sheet to acquire Micron Technolgy, Inc.'s 60,000 wafers per month capacity Fab located in Nishiwaki, Japan. We are currently negotiating and drafting the definitive agreements. There is no assurance when, if at all, the term sheet will materialize into definitive agreements, to be followed by the closing of the acquisition. If we do close the acquisition we still may be unable to (i) achieve the full benefits of the anticipated cost reductions or other anticipated synergies, (ii) grow customer demand, or (iii) fund necessary capital expenditures. There can be no assurance that we will be able to successfully integrate or achieving the anticipated benefits from the acquisition, which may result in adverse negative effect on our operations and business.

If we do not fully equip Fab 2 and complete the equipment installation, and ramp-up of production in Fab 2 to its full capacity, we will not fully utilize the substantial investment made in the construction of Fab 2.

Depending on the process technology and product mix, when fully ramped-up, it is estimated that Fab 2 will be able to achieve capacity levels of approximately 45,000 wafers per month. The full ramp-up of Fab 2 has not been completed to date. Our determination as to the timing of the implementation of the ramp-up of Fab 2 and the increase in Fab 2's production levels is dependent on prevailing and forecasted market conditions and our ability to fund these increases. There can be no assurance as to the timing or our ability to achieve Fab 2 capacity levels of approximately 45,000 wafers per month. The ramp-up of Fab 2 is a substantial and complex project. If we cannot fund the further ramp-up of Fab 2 or otherwise successfully complete the ramp-up of Fab 2, we may be unable to meet our customers' production demands and as a result may lose customers and may not attract new ones. In order to fully ramp-up Fab 2, we will need to continue to develop new process technologies in order to suit our customers' needs. In addition, we have experienced, and may in the future experience, difficulties that are customary in the installation, functionality and operation of equipment during manufacturing. Failures or delays in obtaining and installing the necessary equipment, technology and other resources may delay the completion of the ramp-up of Fab 2, add to its cost and result in the Company not fully utilizing the substantial investment made in the construction of Fab 2, which may adversely affect our future financial results.

Failure to comply with the terms of the new grants approved by the Investment Center may result in us not receiving the benefit of the approved grants or being required to return grants we received in the past.

In February 2011 we received an official approval certificate ("ktav ishur") from the Israeli Investment Center, a governmental agency, for our expansion program according to which we may be entitled to receive up to NIS 150 million of cash grants over the years 2011 through 2014, subject to our eligibility for it. Under our previous approved program approved in December 2000 we received $165 million of grants for Cap-Ex investment made during the years 2001 through 2005.

Eligibility to the above grants and other tax benefits is subject to various conditions stipulated by the Israeli Law for the Encouragement of Capital Investments - 1959 ("Investments Law") and the regulations promulgated thereunder, as well as the criteria set forth in the certificates of approval. In the event Tower fails to comply with such conditions, Tower may not be eligible to receive the grants approved and may be required to repay all or a portion of the grants received plus interest and certain adjustments. In order to secure fulfillment of the conditions related to the receipt of investment grants, floating liens were registered in favor of the State of Israel on substantially all of Tower's assets. Failure to receive the grants will require us to seek alternative sources of funding for our ramp which may not be available to us.

If we do not receive orders from our customers with whom we have signed long-term contracts, we may have excess capacity.

We have committed a portion of our capacity for future orders to some customers with whom we have signed long-term contracts. If these customers do not place orders with us in accordance with their contractual loading and purchase commitments, and if we are unable to fill such unutilized capacity, our financial results may be adversely affected.

We may be required to incur additional indebtedness.

Although Tower and Jazz are limited by the covenants in their respective loan facilities, Tower and/or Jazz could find themselves in a position in which they would be required to take on additional indebtedness in order to fund their operations, which would increase the amount of our outstanding indebtedness. Any additional indebtedness would increase the risks associated with servicing our indebtedness.

Economic conditions may adversely affect our results.

Market analysts are currently cautious in regards to the global economic conditions forecasted for 2011 and beyond and there is no assurance that another downturn in the semiconductor industry and/or in the global economy will not occur. The effects of another downturn in the semiconductor industry and/or in the global economy may adversely affect our future financial results and position, including our ability to fulfill our debt obligations and other liabilities, comprised mainly of banks' loans and debentures, as it may negatively impact consumer and customer demand for our products and the end products of our customers, as well as our commercial relationships with our customers, suppliers, and creditors, including our lenders. Another such downturn may adversely affect our plans to continue our capacity growth and to explore expansion opportunities.

The cyclical nature of the semiconductor industry and the resulting periodic overcapacity may lead to erosion of sale prices. Downward price pressure may seriously harm our business.

The semiconductor industry has historically been highly cyclical. Historically, companies in the semiconductor industry have expanded aggressively during periods of increased demand. This expansion has frequently resulted in overcapacity and excess inventories, leading to rapid erosion of average sale prices. We expect this pattern to repeat itself in the future. The overcapacity and downward price pressure characteristic of a prolonged downturn in the semiconductor market, such as we experienced several times in the past, may not allow us to operate at a profit, and could seriously harm our financial results and business.

Our operating results fluctuate from quarter to quarter which makes it difficult to predict our future performance.

Our revenues, expenses and operating results have varied significantly in the past and may fluctuate significantly from quarter to quarter in the future due to a number of factors, many of which are beyond our control. These factors include, among others:

- The cyclical nature of both the semiconductor industry and the markets served by our customers;
- Changes in the economic conditions of geographical regions where our customers and their markets are located;
- Shifts by integrated device manufacturers (IDMs) and customers between internal and outsourced production;
- Inventory and supply chain management of our customers;
- The loss of a key customer, postponement of an order from a key customer or the rescheduling or cancellation of large orders;
- The occurrence of accounts receivable write-offs, failure of a key customer to pay accounts receivable in a timely manner or the financial condition of our customers;
- The rescheduling or cancellation of planned capital expenditures;
- Our ability to satisfy our customers' demand for quality and timely production;
- The timing and volume of orders relative to our available production capacity;
- Our ability to obtain raw materials and equipment on a timely and cost-effective basis;
- Price erosion in the industry;
- Environmental events or industrial accidents such as fire or explosions;
- Our susceptibility to intellectual property rights disputes;
- Our ability to maintain existing partners and to enter into new partnerships and technology and supply alliances on mutually beneficial terms;
- Interest, price index and currency rate fluctuations that were not hedged;
- Technological changes and short product life cycles;
- Timing for the design and the qualification of new products;
- Increase in the fair value of our bank loans, certain of our warrants and debentures; and
- Changes in accounting rules affecting our results.

Due to the factors noted above and other risks discussed in this section, many of which are beyond our control, investors should not rely on quarter-to-quarter comparisons to predict our future performance. Unfavorable changes in

any of the above factors may seriously harm our company, including our operating results, financial condition and ability to maintain our operations.

Fluctuations in the market price of our traded securities may significantly affect our reported GAAP non-cash financing expenses.

Under prevailing accounting standards, we are required, in certain circumstances, to mark our liabilities, or an embedded feature that is part of a liability, to market, e.g. convertible debentures, warrants and options. An increase or a fluctuation in such securities' market price or in our share price may cause a significant increase or fluctuation in our reported GAAP non-cash financing expenses, net which may harm our ability to accurately forecast our reported GAAP non-cash financing expenses, net, our reported net profit or loss, and our reported earnings or losses per share, and may cause our possible gross and operating profits to result in a net loss, increase our net loss or reduce our net profits. This non-cash appreciation in our obligations and financing expenses will either eventually be reversed or be converted into equity, or a combination thereof.

The lack of a significant backlog resulting from our customers not placing purchase orders far in advance makes it difficult for us to forecast our revenues in future periods.

Our customers generally do not place purchase orders far in advance, partly due to the cyclical nature of the semiconductor industry. As a result, we do not typically operate with any significant backlog. The lack of a significant backlog makes it difficult for us to forecast our revenues in future periods. Moreover, since our expense levels are based in part on our expectations of future revenues, we may be unable to adjust costs in a timely manner to compensate for revenue shortfalls. We expect that, in the future, our revenues in any quarter will continue to be substantially dependent upon purchase orders received in that quarter and in the immediately preceding quarter. There is no assurance that any of our customers will continue to place orders with us in the future at the same levels as in prior periods. If orders received from our customers differ adversely from our expectations with respect to the product, volume, price or other items, our operating results, financial condition and ability to maintain our operations may be adversely affected.

We occasionally manufacture wafers based on forecasted demand, rather than actual orders from customers. If our forecasted demand exceeds actual demand, we may have obsolete inventory, which could have a negative impact on our results of operations.

We generally do not manufacture wafers unless we receive a customer purchase order. On occasion, we may produce wafers in excess of customer orders based on forecasted customer demand, because we may forecast future excess demand or because of future capacity constraints. If we manufacture more wafers than are actually ordered by customers, we may be left with excess inventory that may ultimately become obsolete and must be scrapped if it cannot be sold. Significant amounts of obsolete inventory could have a negative impact on our results of operations.

We have a history of operating losses. Our facilities must operate at high utilization rates in order to reduce our losses.

We have operated at a loss for the last number of years and may continue to do so in the future. Because fixed costs represent a substantial portion of the operating costs of semiconductor manufacturing operations, we must operate our facilities at high utilization rates in order to reduce our loss. Tower began construction of Fab 2 in 2001 and Fab 2 operations began in 2003. A significant portion of our losses since 2003 have been due primarily to significant depreciation and amortization expenses related mainly to Fab 2, as well as financing and high level of fixed costs of our other operating expenses. These costs and expenses have not been offset by a sufficient increase in the level of revenues . If we will not operate our facilities consistently at high utilization rates, we may be unable to maintain operating profits, which may adversely affect our business. We cannot assure you that we will be profitable on a quarterly or annual basis in the future.

Our sales cycles are typically long, and orders received may not meet our expectations, which may adversely affect our operating results.

Our sales cycles, which we measure from first contact with a customer to first shipment of a product ordered by the customer, vary substantially and may last as long as two years or more, particularly for new technologies. In addition, even after we make initial shipments of prototype products, it may take several more months to reach full production of the product. As a result of these long sales cycles, we may be required to invest substantial time and incur significant expenses in advance of the receipt of any product order and related revenue. If orders ultimately received differ from our expectations with respect to the product, volume, price or other items, our operating results, financial condition and ability to maintain our operations may be adversely affected.

Demand for our foundry services is dependent on the demand in our customers' end markets.

In order for demand for our wafer fabrication services to increase, the markets for the end products utilizing these services must develop and expand. For example, the success of our imaging process technologies will depend, in part, on the growth of markets for certain image sensor product applications. Because our services may be used in many new applications, it is difficult to forecast demand. If demand is lower than expected, we may have excess capacity, which may adversely affect our financial results. If demand is higher than expected, we may be unable to fill all of the orders we receive, which may result in the loss of customers and revenue.

If we do not maintain our current customers and attract additional customers, our business may be adversely affected.

Loss or cancellation of business from, or decreases in the sales volume or sales prices to, our significant customers, or our failure to replace them with other customers, could seriously harm our financial results, revenue and business. Since the sales cycle for our services typically exceeds one year, if our customers order significantly fewer wafers than forecasted, we will have excess capacity that we may not be able to fill within a short period of time, resulting in lower utilization of our facilities. We may have to reduce prices in order to try to sell more wafers in order to utilize the excess capacity. In addition to the revenue loss that could result from unused capacity or lower sales prices, we may have difficulty adjusting our costs to reflect the lower revenue in a timely manner, which could harm our financial results.

If we do not maintain and develop our technology processes and services, we will lose customers and may be unable to attract new ones.

The semiconductor market is characterized by rapid change, including the following:

- rapid technological developments;
- evolving industry standards;
- changes in customer and product end user requirements;
- frequent new product introductions and enhancements; and
- short product life cycles with declining prices as products mature.

Our ability to maintain our current customer base and attract new customers is dependent in part on our ability to continuously develop and introduce to production advanced specialized manufacturing process technologies and purchase the appropriate equipment. If we are unable to successfully develop and introduce these processes to production in a timely manner or at all or if we are unable to purchase the appropriate equipment required for such processes, we may be unable to maintain our current customer base and may be unable to attract new customers.

The semiconductor foundry business is highly competitive; our competitors may have competitive advantages over us.

The semiconductor foundry industry is highly competitive. We compete with more than ten independent dedicated foundries, the majority of which are located in Asia-Pacific, including foundries based in Taiwan, China, Korea and Malaysia, and with over 20 integrated semiconductor and end-product manufacturers that allocate a portion of their manufacturing capacity to foundry operations. The foundries with which we compete benefit from their close proximity to other companies involved in the design and manufacture of integrated circuits, or ICs.

As our competitors continue to increase their manufacturing capacity, there could be an increase in specialty semiconductor capacity during the next several years. As specialty capacity increases, there may be more competition and pricing pressure on our services, and underutilization of our capacity may result. Any significant increase in competition or pricing pressure may erode our profit margins, weaken our earnings or increase our losses.

In addition, some semiconductor companies have advanced their CMOS designs to 90 nanometer, 65 nanometer or smaller geometries. These smaller geometries may provide the customer with performance and integration features that may be comparable to, or exceed, features offered by our specialty process technologies, and may be more cost-effective at higher production volumes for certain applications, such as when a large amount of digital content is required in a mixed-signal semiconductor and less analog content is required. Our specialty processes will therefore compete with these processes for customers and some of our potential and existing customers could elect to design these advanced CMOS processes into their next generation products. We are not currently capable, and do not currently plan to become capable, of providing CMOS processes at these smaller geometries. If our potential or existing customers choose to design their products using these advanced CMOS processes, our business may suffer.

In addition, many of our competitors may have one or more of the following competitive advantages over us:

- greater manufacturing capacity;
- multiple and more advanced manufacturing facilities;
- more advanced technological capabilities;
- a more diverse and established customer base;
- greater financial, marketing, distribution and other resources;
- a better cost structure; and/or
- better operational performance in cycle time and yields.

If we do not compete effectively, our business and results of operations may be adversely affected.

If we experience difficulty in achieving acceptable device yields, product performance and delivery times as a result of manufacturing problems, our business could be seriously harmed.

The process technology for the manufacture of semiconductor wafers is highly complex, requires advanced and costly equipment and is constantly being modified in an effort to improve device yields, product performance and delivery times. Microscopic impurities such as dust and other contaminants, difficulties in the production process, defects in the key materials and tools used to manufacture a wafer and other factors can cause wafers to be rejected or individual semiconductors on specific wafers to be non-functional. We may experience difficulty achieving acceptable device yields, product performance and product delivery times in the future as a result of manufacturing problems. Any of these problems could seriously harm our operating results, financial condition and ability to maintain our operations.

If we are unable to purchase equipment and raw materials, we may not be able to manufacture our products in a timely fashion, which may result in a loss of existing and potential new customers.

To increase the production capability of our facilities and to maintain the quality of production in our facilities, we must procure additional equipment. In periods of high market demand, the lead times from order to delivery of manufacturing equipment could be as long as 12 to 18 months. In addition, our manufacturing processes use many raw materials, including silicon wafers, chemicals, gases and various metals, and require large amounts of fresh water and electricity. Manufacturing equipment and raw materials generally are available from several suppliers. In many instances, however, we purchase equipment and raw materials from a single source. Shortages in supplies of manufacturing equipment and raw materials could occur due to an interruption of supply or increased industry demand. Any such shortages could result in production delays that could result in a loss of existing and potential new customers which may have a material adverse effect on our business and financial condition.

Our exposure to inflation, currency exchange and interest rate fluctuations may increase our cost of operations.

Almost all of our cash generated from operations and our financing and investing activities is denominated in US dollars and New Israeli Shekels, or NIS. Our expenses and costs are denominated in NIS, US dollars, Japanese Yen and Euros. We are, therefore, exposed to the risk of currency exchange rate fluctuations.

The dollar amount of Tower's operations, which is denominated in NIS, is influenced by changes in the rate of inflation in Israel and the extent to which such changes are not offset by changes in valuation of the NIS in relation to the US dollar. Such dollar amount of operations will also increase if the US dollar devalues against the NIS. Outstanding principal and interest on some of Tower's debentures is linked to the Israeli consumer price index (CPI) and therefore, Tower's dollar costs will increase if inflation in Israel exceeds the devaluation of the NIS against the US dollar.

Tower and Jazz's borrowings under their respective credit facilities provide for interest based on a floating LIBOR rate, thereby exposing us to interest rate fluctuations. Furthermore, if Tower and/or Jazz's banks incur increased costs in financing the applicable credit facility due to changes in law or the unavailability of foreign currency, they may exercise their right to increase the interest rate on the credit facility or require Tower and/or Jazz to bear such increased cost as provided for in the respective credit facility agreement.

Tower regularly engages in various hedging strategies to reduce its exposure to some, but not all, of these risks and intends to continue to do so in the future. However, despite any such hedging activity, Tower is likely to remain exposed to interest rate and exchange rate fluctuations and inflation, which may increase the cost of its operating and financing activities.

We depend on intellectual property rights of third parties and failure to maintain or acquire licenses could harm our business.

We depend on third party intellectual property in order for us to provide certain foundry and design services to our clients. If problems or delays arise with respect to the timely development, quality and provision of such intellectual property to us, the design and production of our customers' products could be delayed, resulting in underutilization of our capacity. If any of our third party intellectual property vendors goes out of business, liquidates, merges with, or is acquired by, another company that discontinues the vendor's previous line of business, or if we fail to maintain or acquire licenses to such intellectual property for any other reason, our business may be adversely affected. In addition, license fees and royalties payable under these agreements may impact our margins and operating results.

Failure to comply with the intellectual property rights of third parties or to defend our intellectual property rights could harm our business.

Our ability to compete successfully depends on our ability to operate without infringing on the proprietary rights of others and defending our intellectual property rights. Because of the complexity of the technologies used and the multitude of patents, copyrights and other overlapping intellectual property rights, it is often difficult for semiconductor companies to determine infringement. Therefore, the semiconductor industry is characterized by frequent litigation regarding patent, trade secret and other intellectual property rights. We have been subject to other intellectual property claims from time to time, which have been resolved through license agreements, the terms of which have not had a material effect on our business.

Because of the nature of the industry, we may continue to be a party to infringement claims in the future. In the event any third party were to assert infringement claims against us or our customers, we may have to consider alternatives including, but not limited to:

- negotiating cross-license agreements;
- seeking to acquire licenses to the allegedly infringed patents, which may not be available on commercially reasonable terms, if at all;
- discontinuing use of certain process technologies, architectures, or designs, which could cause us to stop manufacturing certain integrated circuits if we were unable to design around the allegedly infringed patents;
- litigating the matter in court and paying substantial monetary damages in the event we lose; or
- seeking to develop non-infringing technologies, which may not be feasible.

Any one or several of these alternatives could place substantial financial and administrative burdens on us and hinder our business. Litigation, which could result in substantial costs to us and diversion of our resources, may also be necessary to enforce our patents or other intellectual property rights or to defend us or our customers against claimed infringement of the rights of others. If we fail to obtain certain licenses or if litigation relating to alleged patent infringement or other intellectual property matters occurs, it could prevent us from manufacturing particular products or using particular technologies, which could reduce our opportunities to generate revenues.

As of March 31, 2011, we held 197 patents in force in the United States and 33 patents in force in foreign countries. We intend to continue to file patent applications when appropriate. The process of seeking patent protection may take a long time and be expensive. We cannot assure you that patents will be issued from pending or future applications or that, if patents are issued, they will not be challenged, invalidated or circumvented or that the rights granted under the patents will provide us with meaningful protection or any commercial advantage. In addition, we cannot assure you that other countries in which we market our services and products will protect our intellectual property rights to the same extent as the United States. Further, we cannot assure you that we will at all times enforce our patents or other intellectual property rights or that courts will uphold our intellectual property rights, or enforce the contractual arrangements that we have entered into to protect our proprietary technology, which could reduce our opportunities to generate revenues.

Effective intellectual property enforcement may be unavailable or limited in some foreign countries. It may be difficult for us to protect our intellectual property from misuse or infringement by other companies in these countries. Our inability to enforce our intellectual property rights in some countries may harm our business and results of operations.

We could be seriously harmed by failure to comply with environmental regulations.

Our business is subject to a variety of laws and governmental regulations in Israel and in the U.S. relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in Tower’s production processes in Israel and in Jazz’s production processes in California. If we fail to use, discharge or dispose of hazardous materials appropriately, or if applicable environmental laws or regulations change in the future, we could be subject to substantial liability or could be required to suspend or adversely modify our manufacturing operations.

We are subject to the risk of loss due to fire because the materials we use in our manufacturing processes are highly flammable.

We use highly flammable materials such as silane and hydrogen in our manufacturing processes and are therefore subject to the risk of loss arising from fire. The risk of fire associated with these materials cannot be completely eliminated. We maintain insurance policies to reduce potential losses that may be caused by fire, including business interruption insurance. If any of our fabs were to be damaged or cease operations as a result of a fire, or if our insurance proves to be inadequate, it may reduce our manufacturing capacity and revenues. In addition, a power outage, even of very limited duration, could result in a loss of wafers in production, deterioration in our fab yield and substantial downtime to reset equipment before resuming production.

Possible product returns could harm our business.

Products manufactured by us may be returned within specified periods if they are defective or otherwise fail to meet customers' prior agreed upon specifications. Product returns in excess of established provisions, if any, may have an adverse effect on our business and financial condition.

We are subject to risks related to our international operations.

We have generated substantial revenue from customers located in Asia-Pacific and in Europe. Because of our international operations, we are vulnerable to the following risks:

- we price our products primarily in US dollars; if the Euro, Yen or other currencies weaken relative to the US dollar, our products may be relatively more expensive in these regions, which could result in a decrease in our revenue;
- the burdens and costs of compliance with foreign government regulation, as well as compliance with a variety of foreign laws;
- general geopolitical risks such as political and economic instability, international terrorism, potential hostilities and changes in diplomatic and trade relationships;
- natural disasters affecting the countries in which we conduct our business;
- imposition of regulatory requirements, tariffs, import and export restrictions and other trade barriers and restrictions including the timing and availability of export licenses and permits;
- adverse tax rules and regulations;
- weak protection of our intellectual property rights;
- delays in product shipments due to local customs restrictions;

- laws and business practices favoring local companies;
- difficulties in collecting accounts receivable; and
- difficulties and costs of staffing and managing foreign operations.

In addition, Israel, the United States and other foreign countries may implement quotas, duties, taxes or other charges or restrictions upon the importation or exportation of our products, leading to a reduction in sales and profitability in that country. The geographical distance between Israel, the United States, Asia and Europe also creates a number of logistical and communication challenges. We cannot assure you that we will not experience any serious harm in connection with our international operations.

Our business could suffer if we are unable to retain and recruit qualified personnel.

We depend on the continued services of our executive officers, senior managers and skilled technical and other personnel. Our business could suffer if we lose the services of some of these personnel because we may not be able to find and adequately integrate replacement personnel into our operations in a timely manner. We seek to recruit highly qualified personnel and there is intense competition for the services of these personnel in the semiconductor industry. Competition for personnel may increase significantly in the future as new fabless semiconductor companies as well as new semiconductor manufacturing facilities are established. Our ability to retain existing personnel and attract new personnel is in part dependent on the compensation packages we offer. As demand for qualified personnel increases, we may be forced to increase the compensation levels and to adjust the cash, equity and other components of compensation we offer our personnel.

Our business plan is premised on the increasing use of outsourced foundry services by both fabless semiconductor companies and integrated device manufacturers for the production of semiconductors using specialty process technologies. Our business may not be successful if this trend does not continue to develop in the manner we expect.

We operate as an independent semiconductor foundry focused primarily on specialty process technologies. Our business model assumes that demand for these processes within the semiconductor industry will grow and will follow the broader trend towards outsourcing foundry operations. Although the use of foundries is established and growing for standard CMOS processes, the use of outsourced foundry services for specialty process technologies is less common and may never develop into a significant part of the semiconductor industry. If fabless companies and vertically integrated device manufacturers opt not to, or determine that they cannot, reduce their costs or allocate resources and capital more efficiently by accessing independent specialty foundry capacity, the manufacture of specialty process technologies may not follow the trend of standard CMOS processes. If the broader trend to outsourced foundry services does not prove applicable to the specialty process technologies that we are focused on, our business, results of operations and cash flow may be harmed.

If we are unable to collaborate successfully with electronic design automation vendors and third-party design service companies to meet our customers' design needs, our business could be harmed.

We have established relationships with electronic design automation vendors and third-party design service companies. We work together with these vendors to develop complete design kits that our customers can use to meet their design needs using our process technologies. Our ability to meet our customers' design needs successfully depends on the availability and quality of the relevant services, tools and technologies provided by electronic design automation vendors and design service providers, and on whether we, together with these providers, are able to meet customers' schedule and budget requirements. Difficulties or delays in these areas may adversely affect our ability to meet our customers' needs, and thereby harm our business.

Failure to comply with existing or future governmental regulations could reduce our sales or increase our manufacturing costs.

The semiconductors we produce and the export of technologies used in our manufacturing processes may be subject to U.S. export control and other regulations as well as various standards established by authorities in other countries. Failure to comply with existing or evolving U.S. or foreign governmental regulation or to obtain timely domestic or foreign regulatory approvals or certificates could materially harm our business by reducing our sales, requiring modifications to our processes that we license to our foreign manufacturing suppliers, or requiring too extensive modifications to our customers' products. Neither we nor our customers may export products using or incorporating controlled technology without obtaining an export license. In addition, when Jazz faces excess demand, it may be dependent on its manufacturing suppliers in China for a significant portion of its planned manufacturing capacity, and export licenses may be required in order for Jazz to transfer technology related to its manufacturing processes to these suppliers. These restrictions may make foreign competitors facing less stringent controls on their processes and their customers' products more competitive in the global market than Jazz or its customers. The U.S. government may not approve any pending or future export license requests. In addition, the list of products and countries for which export approval is required, and the regulatory policies with respect thereto, could be revised from time to time.

We expect to enter into a Special Security Agreement with the United States Department of Defense which may limit the synergies and other expected benefits of the Merger.

In connection with Jazz's aerospace and defense business, its facility security clearance and trusted foundry status, we are working with the Defense Security Service of the United States Department of Defense ("DSS") to develop an appropriate structure to mitigate any concern of foreign ownership, control or influence over the operations of Jazz specifically relating to protection of classified information and prevention of potential unauthorized access thereto. In order to safeguard classified information, it is expected that the DSS will require adoption of a Special Security Agreement ("SSA"). The SSA may include certain security related restrictions, including restrictions on the composition of the board of directors, the separation of certain employees and operations, as well as restrictions on disclosure of classified information to Tower. The provisions contained in the SSA may also limit the synergies and other benefits realized from the Merger. There is no assurance when, if at all, an SSA will be reached.

If the integrated circuits we manufacture are integrated into defective products, we may be subject to product liability or other claims which could damage our reputation and harm our business.

Our customers integrate our custom integrated circuits into their products which they then sell to end users. If these products are defective or malfunction, we may be subject to product liability claims, as well as possible recalls, safety alerts or advisory notices relating to the product. We cannot assure you that our insurance policies will be adequate to satisfy claims that may be made against us. Also, we may be unable to obtain insurance in the future at satisfactory rates, in adequate amounts, or at all. Product liability claims or product recalls in the future, regardless of their ultimate outcome, could have a material adverse effect on our business, reputation, financial condition and on our ability to attract and retain customers.

A significant portion of Jazz's workforce is unionized, and its operations may be adversely affected by work stoppages, strikes or other collective actions which may disrupt its production and adversely affect the yield of its fab.

A significant portion of Jazz's employees at its Newport Beach, California fab are represented by a union and covered by a collective bargaining agreement that is scheduled to expire in 2012. We cannot predict the effect that continued union representation or future organizational activities will have on Jazz's business. We cannot assure you that Jazz will not experience a material work stoppage, strike or other collective action in the future, which may disrupt its production and adversely affect its customer relations and operational results.

Jazz's production yields and business could be significantly harmed by natural disasters, particularly earthquakes.

Jazz's Newport Beach, California fab is located in southern California, a region known for seismic activity. Due to the complex and delicate nature of our manufacturing processes, Jazz's facilities are particularly sensitive to the effects of vibrations associated with even minor earthquakes. Jazz's business operations depend on its ability to maintain and protect its facilities, computer systems and personnel. We cannot be certain that precautions Jazz has taken to seismically upgrade its fab will be adequate to protect its facilities in the event of a major earthquake, and any resulting damage could seriously disrupt Jazz's production and result in reduced revenues.

Risks relating to construction activities.

In December 2010, the properties which Jazz leases for its fabrication facilities and headquarters, were sold by their owner (Conexant) to Uptown Newport LP ("Uptown"), a joint venture consisting of a fund controlled by New York-based DRA Advisors LLC and an affiliate of the Shopoff Group, a real estate investment firm based in Irvine, California. In connection with the sale, Jazz negotiated amendments to its operating leases that confirm its ability to remain in the fabrication facilities through 2017 and to exercise options to extend that lease through 2027. Uptown has expressed its intention to begin development of a portion of the property adjacent to Jazz's fabrication facility, with the first phase of development of mixed use townhouses, midrise and hi-rise condominium potentially beginning in 2014 or thereafter. In the amendments to its leases, Jazz secured various contractual safeguards designed to limit and mitigate any adverse impact of construction activities on its fabrication operations. Although Jazz does not anticipate a material adverse impact to its operations, it is possible that construction activities adjacent to its fabrication facility could result in temporary reductions or interruptions in the supply of utilities to the property and that a portion or all of the fabrication facility may need to be idled temporarily during development. If construction activities limit or interrupt the supply of water, gas or electricity to Jazz's fabrication facility or cause significant vibrations or other disruptions, it could limit or delay Jazz'd production, which could adversely affect its business and operating results. In addition, an unplanned power outage caused by construction activities, even of very limited duration, could result in a loss of wafers in production, deterioration in our fab yield and substantial downtime to reset equipment before resuming production.

Risks Related to Our Securities

The repayment of Tower's outstanding debentures is subordinated to Tower's indebtedness to its banks and obligations to secured creditors and Jazz's repayment of its notes is subordinated to Jazz's secured indebtedness to its banks.

The repayment of Tower's outstanding debentures is subordinated to (i) the timely repayment of Tower's bank loans to under Tower's amended facility agreement, (ii) any obligations to the Investment Center of the Israeli Ministry of Industry, Trade and Labor under the Investment Center's "Approved Enterprise" programs in relation to Fab 2. Tower has not guaranteed any of Jazz's debt, including Jazz's debt under its bank loan and Jazz's debt to its notes holders. In addition repayment of Jazz's notes is subordinated to the prior payment of approximately $22 million payable in regard to Jazz's secured bank loans as of December 31, 2010. As a result, upon any distribution to Tower or Jazz's creditors, as applicable, in liquidation or reorganization or similar proceedings, these secured creditors will be entitled to be paid in full before any payment may be made with respect to Tower or Jazz's outstanding debentures or note holders, as applicable. In any of these circumstances, Tower, or Jazz, as applicable, may not have sufficient assets remaining to pay amounts due on any or all of their respective debentures or notes then outstanding. In addition, neither Tower nor Jazz, as applicable, is permitted under the terms of their respective facility agreements to make a payment on account of their respective debentures or notes, as applicable, if on the date of such payment an "Event of Default" exists under the applicable facility agreement.

Tower's stock price may be volatile in the future.

The stock market, in general, has experienced extreme volatility that often has been unrelated to the operating performance of particular companies. In particular, the stock prices for many companies in the semiconductor industry have experienced wide fluctuations, which have often been unrelated to the operating performance of such companies. These broad market and industry fluctuations may adversely affect the market price of Tower's ordinary shares, regardless of Tower's actual operating performance.

In addition, it is possible that in some future periods Tower's operating results may be below the expectations of public market analysts and investors. In this event, the price of Tower's securities may underperform or fall.

Market sales of large amounts of Tower's ordinary shares eligible for future sale, or even the perception that such sales may occur, may depress the market price of Tower's ordinary shares and may impair our ability to raise capital through the sale of Tower securities and limit our ability to find financing sources to fund our debt and other liabilities.

Market sales of large amounts of Tower's ordinary shares eligible for future sale, or even the perception that such sales may occur, may depress the market price of Tower's ordinary shares. Of Tower's approximately 286.0 million outstanding ordinary shares as of March 31, 2011, approximately 252.8 million are held by non-affiliates and are freely tradable under US securities laws. The balance is held by affiliates of Tower. Some of these shares are or may be registered for resale and therefore are or could be freely tradable under US securities laws, and the balance would be eligible for sale subject to the volume and manner of sale limitations of Rule 144 promulgated under the US Securities Act of 1933. In addition, as described below, a substantial number of Tower ordinary shares are issuable under capital notes, options, warrants and convertible notes. A portion of these shares are or may be registered upon demand of the holders or may be sold subject to the volume and manner of sale requirements of Rule 144, see also "Item 5B. Liquidity and Capital Resources". "Fab 2 Agreements-Tower's Credit Facility". This could impair our ability to raise capital through the sale of Tower securities and may require us to obtain financing from alternative sources in order to fulfill our debt and obligations, which financing may not be available.

Issuance of ordinary shares may dilute the percentage of current and future shareholders.

As of March 31, 2011, we had approximately 286 million ordinary shares outstanding. We may issue additional ordinary shares that may result in dilution of the percentage of our ordinary shares held by current and future shareholders. As detailed in Item 7. Major Shareholders and in Note 16 to our consolidated financial statements included in the annual report, we are obligated to issue a significant amount of shares or convertible securities to our banks, employees, CEO, directors, bond holders, warrant holders and Israel Corp. In addition, we may execute on additional financings in the future, which may involve the issuance of additional ordinary shares or securities that are convertible into or exercisable for the purchase of ordinary shares, which may materially dilute the holdings of our shareholders.

Risks Related to Our Operations in Israel

Instability in Israel may harm our business.

Fab 1 and Fab 2 manufacturing facilities and certain of its corporate and sales offices are located in Israel. Accordingly, political, economic and military conditions in Israel may directly affect our business.

Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors. In addition, Israel and companies doing business with Israel have, in the past, been the subject of an economic boycott. Although Israel has entered into various agreements with Egypt, Jordan and the Palestinian Authority, Israel has been and is subject to terrorist activity, with varying levels of severity. Parties with whom we do business have sometimes declined to travel to Israel during periods of heightened unrest or tension, forcing us to make alternative arrangements where necessary. In addition, the political and security situation in Israel may result in parties with whom we have agreements claiming that they are not obligated to perform their commitments under those agreements pursuant to force majeure provisions. We can give no assurance that security and political conditions will not adversely impact our business in the future. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners could adversely affect our operations and make it more difficult for us to raise capital. Furthermore, Fab 1 and Fab 2 manufacturing facilities are located exclusively in Israel. We could experience serious disruption of our manufacturing in Israel if acts associated with this conflict result in any serious damage to our manufacturing facilities. In addition, our business interruption insurance may not adequately compensate us for losses that may incurred, and any losses or damages incurred by us could have a material adverse effect on our business.

Our operations may be negatively affected by the obligations of our Israeli personnel to perform military service.

In the event of severe unrest or other conflict, Israeli individuals could be required to serve in the military for extended periods of time. In response to increases in terrorist activity, there have been periods of significant call-ups of Israeli military reservists, and it is possible that there will be additional call-ups in the future. Many male Israeli citizens, including most of Tower's employees, are subject to compulsory military reserve service through middle age. Our operations in Israel could be disrupted by the absence for a significant period of time of one or more of our key employees or a significant number of our other employees due to military service. Such disruption could harm our operations.

If the exemption allowing us to operate our Israeli manufacturing facilities seven days a week is not renewed, our business will be adversely affected.

We operate our Israeli manufacturing facilities seven days a week pursuant to an exemption from the law that requires businesses in Israel to be closed from sundown on Friday through sundown on Saturday. This exemption expires by its terms on December 31, 2011. If the exemption is not renewed and we are forced to close any or all of the Israeli facilities for this period each week, our financial results and business will be harmed.

If we are considered to be a passive foreign investment company, either presently or in the future, US Holders will be subject to adverse US tax consequences.

We will be a passive foreign investment company, or PFIC, if 75% or more of our gross income in a taxable year, including our pro rata share of the gross income of any company, US or foreign, in which we are considered to own, directly or indirectly, 25% or more of the shares by value, is passive income. Alternatively, we will be considered to be a PFIC if at least 50% of our assets in a taxable year, averaged over the year and ordinarily determined based on fair market value, including our pro rata share of the assets of any company in which we are considered to own, directly or indirectly, 25% or more of the shares by value, are held for the production of, or produce, passive income. If we were to be a PFIC, and a US Holder does not make an election to treat us as a “qualified electing fund,” or QEF, or a “mark to market” election, “excess distributions” to a US Holder, any gain recognized by a US Holder on a disposition of our ordinary shares would be taxed in an unfavorable way. Among other consequences, our dividends would be taxed at the regular rates applicable to ordinary income, rather than the 15% maximum rate applicable to certain dividends received by an individual from a qualified foreign corporation. The tests for determining PFIC status are applied annually and it is difficult to make accurate predictions of future income and assets, which are relevant to the determination of PFIC status. In light of the uncertainties described above, we have not obtained an opinion of counsel with respect to our PFIC status and no assurance can be given that we will not be a PFIC in any year. If we determine that we have become a PFIC, we will then notify our US Holders and provide them with the information necessary to comply with the QEF rules. If the IRS determines that we are a PFIC for a year with respect to which we have determined that we were not a PFIC, however, it might be too late for a US Holder to make a timely QEF election, unless the US Holder qualifies under the applicable Treasury regulations to make a retroactive (late) election. US Holders who hold ordinary shares during a period when we are a PFIC will be subject to the foregoing rules, even if we cease to be a PFIC in subsequent years, subject to exceptions for US Holders who made a timely QEF or mark-to-market election.

It may be difficult to enforce a US judgment against us, our officers, directors and advisors or to assert US securities law claims in Israel.

Tower is incorporated in Israel. Most of Tower's executive officers and directors and our Israeli accountants and attorneys are nonresidents of the United States, and a majority of Tower's assets (excluding its U.S. subsidiaries and their assets) and the assets of these persons are located outside the United States. Therefore, it may be difficult to enforce a judgment obtained in the United States, against Tower or any of these persons, in US or Israeli courts based on the civil liability provisions of the US federal securities laws, except to the extent that such judgment could be enforced in the U.S. against Tower's U.S. subsidiaries. Additionally, it may be difficult for you to enforce civil liabilities under US federal securities laws in original actions instituted in Israel.

ITEM 4.INFORMATION ON THE COMPANY

A. HISTORY AND DEVELOPMENT OF THE COMPANY

We are a pure-play independent specialty foundry dedicated to the manufacture of semiconductors. Typically, pure-play foundries do not offer products of their own, but focus on producing integrated circuits, or ICs, based on the design specifications of their customers. We manufacture semiconductors using production processes for our customers primarily based on third party designs and our own proprietary designs. We currently offer the manufacture of ICs with geometries ranging from 1.0 to 0.13-micron. We also provide design services and complementary technical services. ICs manufactured by us are incorporated into a wide range of products in diverse markets, including consumer electronics, personal computers, communications, automotive, industrial and medical device products.

We are focused on establishing leading market share in high-growth specialized markets by providing our customers with high-value wafer foundry services. Our historical focus has been standard digital complementary metal oxide semiconductor ("CMOS") process technology, which is the most widely used method of producing ICs. We are currently focused on the emerging opportunities in the fields of CMOS image sensors, mixed-signal, radio frequency CMOS (RFCMOS), bipolar CMOS (BiCMOS), and silicon-germanium BiCMOS (SiGe BiCMOS or SiGe), high voltage CMOS, radio frequency identification (RFID) technologies and power management. To better serve our customers, we have developed and are continuously expanding our technology offerings in these fields. Through our expertise and experience gained over seventeen years of operation, we differentiate ourselves by creating a high level of value for our clients through innovative technological processes, design and engineering support and services, competitive manufacturing indices, and dedicated customer service.

Tower was founded in 1993, with the acquisition of National Semiconductor's 150-mm wafer fabrication facility, or Fab 1, and commenced operations as an independent foundry with a production capacity of approximately 5,000 wafers per month. Since then, we have significantly modernized our Fab 1 facility and equipment, which has improved our process geometries to range from 1.0-micron to 0.35-micron and enhanced our process technologies to include CMOS image sensors, embedded flash and mixed-signal technologies. Depending on the process technology and product mix, we estimate Fab 1 is able to achieve capacity levels of approximately 20,000 wafers per month.

In January 2001, we commenced construction of a new, state-of-the-art wafer fabrication facility, which we refer to as Fab 2, located in Migdal Haemek, Israel and adjacent to our first facility, Fab 1. In 2003, we completed the infrastructure of Fab 2 and commenced production wafer shipments from this Fab. Fab 2 is designed to operate in geometries of 0.18-micron and below, using advanced materials and advanced CMOS technology. Depending on the process technology and product mix, when fully ramped-up we estimate that Fab 2 will be able to achieve capacity levels of approximately 45,000 wafers per month. We have not completed the full ramp-up of Fab 2. The timing of that decision and its implementation will depend upon several factors, including, funding, cost availability of

equipment and market conditions.

In September 2008, we merged with Jazz Technologies in a stock for stock merger. Jazz focuses on specialty process technologies for the manufacture of analog and mixed-signal semiconductor devices. Jazz's specialty process technologies include advanced analog, radio frequency, high voltage, bipolar and silicon germanium bipolar complementary metal oxide ("SiGe") semiconductor processes. ICs manufactured by Jazz are incorporated into a wide range of products, including cellular phones, wireless local area networking devices, digital TVs, set-top boxes, gaming devices, switches, routers and broadband modems. Jazz operates one semiconductor fabrication facility in Newport Beach, California. Depending on the process technology and product mix, we estimate our Fab in Newport Beach, California is able to achieve capacity levels of approximately 20,000 wafers per month. The merger has provided several key benefits, including increased global capacity, a larger customer base, a more comprehensive product portfolio and a stronger financial base.

Our executive offices and Israeli manufacturing facilities are located in the Ramat Gavriel Industrial Park, Shaul Amor Street, Post Office Box 619, Migdal Haemek, 23105 Israel, and our telephone number is 972-4-650-6611. Our agent for service of process in the United States is Tower Semiconductor USA Inc. located at 2350 Mission College Blvd. Suite 500, Santa Clara, CA 95054.

For more information about us, go to www.towerjazz.com. Information on our web site is not incorporated by reference in this annual report.

B. BUSINESS OVERVIEW

INDUSTRY OVERVIEW

PROLIFERATION OF ANALOG AND MIXED-SIGNAL SEMICONDUCTORS AND THE GROWING NEED FOR SPECIALTY PROCESS TECHNOLOGIES

Semiconductor devices are responsible for the rapid growth of the electronics industry over the past fifty years. They are critical components in a variety of applications, from computers, consumer electronics and communications, to industrial, military, medical and automotive applications. Rapid changes in the semiconductor industry frequently make recently introduced devices and applications obsolete within a very short period of time. With the increase in their performance and decrease in their size and cost, the use of semiconductors and the number of their applications have increased significantly.

Historically, the semiconductor industry was composed primarily of companies that designed and manufactured ICs in their own fabrication facilities. These companies, such as Intel and IBM, are known as integrated device manufacturers, or IDMs. In the mid-1980s, fabless IC companies, which focused on IC design and used external manufacturing capacity, began to emerge. Fabless companies initially outsourced production to IDMs, which filled this need through their excess capacity. As the semiconductor industry continued to grow, increasing competition forced fabless companies and IDMs to seek reliable and dedicated sources of IC manufacturing services. Use of external manufacturing capacity allowed IDMs to reduce their investment in their existing and next-generation manufacturing facilities and process technologies, and gain access to external manufacturing process technologies and production capacity. This need for external manufacturing process technologies has led to the development of independent companies, known as foundries, which focus primarily on providing IC manufacturing services to semiconductor suppliers. Foundry services are used by nearly all major semiconductor companies in the world, including IDMs, as part of a dual-source, risk-diversification and cost effectiveness strategy.

Semiconductor suppliers face increasing demands for new products that provide higher performance, greater functionality and smaller form factors at lower prices, features that require increasingly complex ICs. The industry has experienced a dramatic increase in the number of applications for semiconductors. Further, in order to compete successfully, semiconductor suppliers must minimize the time it takes to bring a product to market. As a result, fabless companies and IDMs have focused more on their core competencies—design and intellectual property—and tend to outsource manufacturing to foundries.

The two basic functional technologies for semiconductor products are digital and analog. Digital semiconductors provide critical processing power and have helped enable many of the computing and communication advances of recent years. Analog semiconductors monitor and manipulate real world signals such as sound, light, pressure, motion, temperature, electrical current and radio waves, for use in a wide variety of electronic products such as digital still cameras, X-Ray medical applications, flat panel displays, personal computers, cellular handsets, telecommunications equipment, consumer electronics, automotive electronics and industrial electronics. Analog-digital, or mixed-signal, semiconductors combine analog and digital devices on a single chip to process both analog and digital signals.

Integrating analog and digital components on a single, mixed-signal semiconductor enables the development of smaller, more highly integrated, power-efficient, feature-rich and cost-effective semiconductor devices but presents significant design and manufacturing challenges. For example, combining high-speed digital circuits with sensitive analog circuits on a single, mixed-signal semiconductor can increase electromagnetic interference and power consumption, both of which cause a higher amount of heat to be dissipated and decrease the overall performance of the semiconductor. Challenges associated with the design and manufacture of mixed-signal semiconductors increase as the industry moves toward more advanced process geometries. As a result, analog and mixed-signal semiconductors can be complex to manufacture and typically require sophisticated design expertise and strong application specific experience and intellectual property.

Mixed-signal ICs are an essential part of any front-end electronic system. Our advanced analog CMOS process technologies have more features than standard analog CMOS process technologies and are well suited for higher performance or more highly integrated analog and mixed-signal semiconductors, such as high-speed analog-to-digital or digital-to-analog converters and mixed-signal semiconductors with integrated data converters. These process technologies generally incorporate higher density passive components, such as capacitors and resistors, as well as improved active components, such as native or low voltage devices, and improved isolation techniques, into standard analog CMOS process technologies. We currently have advanced analog CMOS process technologies in 0.5 micron, 0.35 micron, 0.25 micron, 0.18 micron 0.16 micron and 0.13 micron.

The enormous costs associated with modern fabs, combined with the increasing demand for complex ICs, has created an expanding market for outsourced foundry manufacturing. Foundries can cost-effectively supply advanced ICs to even the smallest fabless companies by creating economies of scale through pooling the demand of numerous customers. In addition, customers whose IC designs require process technologies other than standard digital CMOS have created a market for independent foundries that focus on providing specialized process technologies. Thus, wafer manufacturers may also need to make a significant investment in specialty process technologies in order to manufacture these semiconductors. Specialty process technologies enable greater analog content and can reduce the die size of an analog or mixed-signal semiconductor, thereby increasing the number of dies that can be manufactured on a wafer and reducing final die cost. In addition, specialty process technologies can enable increased performance, superior noise reduction and improved power efficiency of analog and mixed-signal semiconductors compared to traditional standard CMOS processes. These specialty process technologies include advanced analog CMOS, radio frequency CMOS (RF CMOS), CMOS image sensors (CIS), high voltage CMOS, bipolar CMOS (BiCMOS), silicon germanium BiCMOS (SiGe BiCMOS), and bipolar CMOS double-diffused metal oxide semiconductor (BCD).

Foundries also offer competitive customer service through design, testing, and other technical services, often at a level previously found only at an IDM's internal facilities.

MANUFACTURING PROCESSES AND SPECIALIZED TECHNOLOGIES

We manufacture ICs on silicon wafers, generally using the customer's proprietary circuit designs. In some cases, we use third-party or our own proprietary design elements. The end product of our manufacturing process is a silicon wafer containing multiple identical ICs. In most cases, our customer assumes responsibility for dicing, assembly, packaging and testing.

We provide wafer fabrication services to fabless IC companies and IDMs and enable smooth integration of the semiconductor design and manufacturing processes. By doing so, we enable our customers to bring high-performance, highly integrated ICs to market rapidly and cost effectively. We believe that our technological strengths and emphasis on customer service have allowed us to develop a unique position in large, high-growth specialized markets for CMOS image sensors, RF, power management and high performance mixed signal ICs. We serve as a sole source or alternative provider of foundry services.

We manufacture using specialty process technologies, mostly based on CMOS process platforms with added features to enable improved size, performance and cost characteristics for analog and mixed-signal semiconductors. Products made with our specialty process technologies are typically more complex to manufacture than products made using standard process technologies employing similar line widths. Generally, customers who use our specialty process technologies cannot easily transfer designs to another foundry because the analog characteristics of the design are dependent upon the implementation of its applicable process technology. The relatively small engineering community with specialty process expertise has also limited the number of foundries capable of offering specialty process technologies.

The specialty process design infrastructure is complex and includes design kits and device models that are specific to the foundry in which the process is implemented and to the process technology itself. We believe that our specialized process technologies combined with design enablement capabilities distinguish our IC manufacturing services and attract industry-leading customers.

We are a trusted, customer-oriented service provider that has built a solid reputation in the foundry industry over the last eighteen years. We have built strong relationships with customers, who continue to use our services, even as their demands evolve to smaller form factors and new applications. Our consistent focus on providing high-quality, value added services, including engineering and design support, has allowed us to attract customers who seek to work with a proven provider of foundry solutions. Our emphasis on working closely with customers and accelerating the time-to-market of our customers' next-generation products has enabled us to maintain a high customer retention rate and increase the number of new customers and new products for production.

We derived a very significant amount of our revenues for the year ended December 31, 2010 from our target specialized markets: CMOS image sensors, wireless communication, RF-SiGe, high performance analog and power ICs. We are highly experienced in these markets, having been an early entrant and having developed unique proprietary technologies, including through licensing and joint development efforts with our customers and other technology companies.

The specific process technologies that we currently focus on include: CMOS image sensors (CIS), advanced analog CMOS, radio frequency CMOS (RF CMOS), radio frequency identification (RFID), bipolar CMOS (BiCMOS), silicon germanium (SiGe BiCMOS), high voltage CMOS, and bipolar CMOS double-diffused metal oxide semiconductor (BCD) and power LDMOS.

In November 2009, Tower entered into a definitive agreement with an Asian entity. Under the agreement, Tower provides turnkey manufacturing solutions and arranges for the required manufacturing know-how, training and certain assets required for the capacity ramp-up of the Asian entity.

CMOS Image Sensors

CMOS image sensors are ICs used to capture an image in a wide variety of consumer, communications, medical, automotive and industrial market applications, including camera-equipped cell phones, digital still and video cameras, security and surveillance cameras and video game consoles. Our dedicated manufacturing and testing processes assure consistently high electro-optical performance of the integrated sensor through wafer-level characterization. Our CMOS image sensor processes have demonstrated superior optical characteristics, excellent spectral response and high resolution and sensitivity. The ultra-low dark current, high efficiency and accurate spectral response of our photodiode enable faithful color reproduction and acute detail definition.

We are currently actively involved in the high-end sensor and applications specific markets, which include applications such as high end video, industrial machine vision, dental x-ray, medical x-ray and automotive sensors.

We recognized the market potential of using CMOS process technology for a digital camera-on-a-chip, which would integrate a CMOS image sensor, filters and digital circuitry. Upon entering the CMOS image sensor foundry business, we utilized research and development work that had been ongoing since 1993. Our services include a broad range of turnkey solutions and services, including pixel IP services, optical characterization of a CMOS process, innovative stitching manufacturing technique and optical testing and packaging. The CMOS image sensors that we manufacture deliver outstanding image quality for a broad spectrum of digital imaging applications.

Specifically, our CIS portfolio includes, 2.2 micron 2.8 micron 3.2 micron, 3.6 micron and larger pixels, all developed by us. Our advanced photo diode (APD) technology used in CMOS image sensors enables improved optical and electrical performance of pixels utilizing deep sub-micron process technologies, thus enabling the manufacturing of very sophisticated and high performance camera module solutions.

For the X-ray market, we offer our innovative “stitching” technology in Fab 2 on 0.18micron process and a variety of 15 to 150-micron pixels that are optimized for X-ray applications. These pixels are used by our customers in dental and other medical X-ray products. Our stitching technology enables semiconductor exposure tools to manufacture single ultra high-resolution CMOS image sensors containing millions of pixels at sizes far larger than their existing field. This technology is also used by us in the manufacturing of large sensors (up to one die per wafer) on 8” wafers.

In December 2007, we established a partnership with CMT Medical Technologies Ltd. (“CMT”), a leading provider of advanced digital X-ray imaging systems for medical diagnosis, to develop, market and sell X-ray detectors for medical applications. The detectors’ intended use is for radiography/fluoroscopy, cardiology, angiography, mammography and similar large-size X-ray modalities. Our first 5” x 6” sensor prototype has been exhibiting outstanding results compared to all other technology currently used in the medical market. In 2009, Thales (France) acquired most of CMT’s shares and became our partner in this initiative. A full customer ready prototype was completed in 2010 and we expect the start of mass production in 2011.

RF CMOS

In recent years, more and more designers opt to develop high frequency products based on RF CMOS technologies. The superior cost structure of CMOS technologies enables high volume, low cost production of such high frequency products. We used our mixed signal expertise to leverage and develop processes and provide services for customers that utilize CMOS technologies and require high frequency performance.

Our RF CMOS process technologies have more features than advanced analog CMOS process technologies and are well suited for wireless semiconductors, such as highly integrated wireless transceivers, power amplifiers, and television tuners. These process technologies generally incorporate integrated inductors, high performance variable capacitors, or varactors, and RF laterally diffused metal oxide semiconductors into an advanced analog CMOS process technology. In addition to the process features, RF offering includes design kits with RF models, device simulation and physical layouts tailored specifically for RF performance. We currently have RF CMOS process technologies in 0.25 micron, 0.18 micron and 0.13 micron.

BiCMOS for RF and High Performance Analog

Our BiCMOS process technologies have more features than RF CMOS process technologies and are well suited for RF semiconductors such as wireless transceivers and television tuners. These process technologies generally incorporate high-speed bipolar transistors into an RF CMOS process. The equipment requirements for BiCMOS manufacturing are specialized, and require enhanced tool capabilities to achieve high yield manufacturing. We currently have 0.35 micron BiCMOS process technology.

Our SiGe BiCMOS process technologies have more features than BiCMOS processes and are well suited for more advanced RF and high performance analog semiconductors such as high-speed, low noise, highly integrated multi-band wireless transceivers, optical networking components, television tuners and power amplifiers. These process technologies generally incorporate a silicon germanium bipolar transistor, which is formed by the deposition of a thin layer of silicon germanium within a bipolar transistor, to achieve higher speed, lower noise, and more efficient power performance than a BiCMOS process technology. It is also possible to achieve speeds using SiGe BiCMOS process technologies equivalent to those demonstrated in standard CMOS processes that are two process generations smaller in line-width. For example, a 0.18 micron SiGe BiCMOS process is able to achieve speeds comparable to a 90 nanometer RF CMOS process. As a result, SiGe BiCMOS makes it possible to create analog products using a larger geometry process technology at a lower cost while achieving similar or superior performance to that achieved using a smaller geometry standard CMOS process technology. The equipment requirements for SiGe BiCMOS manufacturing are similar to the specialized equipment requirements for BiCMOS. We developed enhanced tool capabilities in conjunction with large semiconductor tool suppliers to achieve high yield SiGe manufacturing. We believe this equipment and related process expertise makes us one of the few silicon manufacturers with demonstrated ability to deliver SiGe BiCMOS products. We currently have 0.35 micron, 0.18 micron and 0.13 SiGe BiCMOS micron technologies available.

Power and Power Management ICs

Our high voltage CMOS and BCD process technologies have more features than advanced analog CMOS processes and are well suited for power and driver semiconductors such as voltage regulators, battery chargers, power management products and audio amplifiers. These process technologies generally incorporate higher voltage CMOS devices such as 5V, 8V, 12V, 40V and 60V LDMOS devices, and, in the case of BCD, bipolar devices, into an advanced analog CMOS process. We currently have high voltage and low Rdson BCD offerings in 0.5 micron, 0.35 micron, 0.25 micron and 0.18 micron. We have extended the high voltage options and integrated the BCD process technology into our more advanced power management technology nodes (0.35 and 0.18 micron) to enable higher levels of analog integration at voltage ranges that are suitable for automotive electronics and line power conditioning for consumer devices. We offer a cost effective and digital intensive power management platform, based on our 0.18um technology node. In 2010, we introduced two more power management platforms: an isolated platform that incorporates an EPI growth on top of a buried layer on our 0.18um 8” based power platform; and a 700V platform on our 6” line, that supports the fast growing LED lighting market. Both platforms are planned to ramp to production in the second half of 2011.In addition, we have developed a unique, zero mask adder NVM solution specifically for power and power management devices on our 0.18um platform. This, combined with our scalable model for LDMOS devices makes our power management platform very attractive in the power IC market. We have released several Y-flash based modules to our customers which have already been integrated into their products.

We continue to invest in technology that improves performance and integration level and reduces the cost of analog and mixed-signal products. This includes improving the density of passive elements such as capacitors and inductors, improving the analog performance and voltage handling capability of active devices, and integrating additional advanced features in our specialty CMOS processes. Examples of such features currently under development include technologies aimed at integrating micro-electro-mechanical-system (MEMS) devices with CMOS, adding silicon-on-insulator (SOI) substrates to enable increased integration of RF and analog functions on a single die and scaling the features we offer today to the 0.13 micron process technology including the integration of advanced SiGe transistors with 0.13um CMOS and copper metallization.

CUSTOMERS, MARKETING AND SALES

Our marketing and sales strategy seeks to aggressively expand our global customer base. We have marketing, sales and engineering support personnel in the United States, Korea and Israel. In 2009, we appointed a Korea country manager. In 2010, we appointed a Europe country manager and a China country manager. Our marketing and sales staff is supported by independent sales representatives, located throughout the world, who have been selected based on their understanding of the semiconductor marketplace.

Our sales cycle is generally 8-26 months or longer for new customers and can be as short as 8-12 months for existing customers. The typical stages in the sales cycle process from initial contact until production are:

- technical evaluation;
- product design to our specifications including integration of third party intellectual property;
- photomask - design and third party photomask manufacturing;
- silicon prototyping;

- assembly and test;
- validation and qualification; and
- production.

The primary customers of our foundry services are fabless semiconductor companies and independent device manufacturers (IDMs). A portion of our product sales are made pursuant to long-term contracts with our customers, under which we have agreed to reserve manufacturing capacity at our production facilities for such customers. Our customers include many industry leaders. During the year ended December 31, 2010, we had five significant customers who contributed 16%, 14%, 9%, 7% and 5% of our revenues, respectively. In 2009, we had three significant customers who contributed 17%, 11% and 7% of our revenues, respectively.

The percentage of our revenues from customers located outside the United States was 23%, 21% and 31% in the years ended December 31, 2008, 2009 and 2010, respectively. Although most of our revenues are from US-based customers, we expect a substantial portion of our revenues to continue to come from customers located outside the United States. The following table sets forth the geographical distribution, by percentage, of our net revenues for the periods indicated:

	Year ended December 31,					
	2010		2009		2008	
United States	69	%	79	%	77	%
Israel	2	%	3	%	5	%
Asia-Pacific	22	%	13	%	11	%
Europe	7	%	5	%	7	%
Total	100	%	100	%	100	%

We price our products on a per wafer or per die basis, taking into account the complexity of the technology, the prevailing market conditions, volume forecasts, the strength and history of our relationships with the customer and our current capacity utilization. Most of our customers usually place their purchase orders only two to four months before shipment; however a few of our major customers are obligated to provide us with longer forecasts of their wafer needs.

We publish press releases, articles, white papers, perform presentations, participate in panel sessions at industry conferences, hold a variety of regional and international technology seminars, and attend and exhibit at various industry trade shows to promote our products and services. We discuss advances in our process technology portfolio and progress on specific relevant programs with our prospective and major customers as well as industry analysts and research analysts on a regular basis and publicly release any such information that we deem material or important to disclose.

Our customers use our processes to design and market a broad range of analog and mixed-signal semiconductors for diverse end markets including wireless and high-speed wireline communications, consumer electronics, automotive and industrial. We manufacture products for a wide range of electronic products including but not limited to high-performance applications such as transceivers and power management for cellular phones; transceivers and power amplifiers for wireless local area networking products; power management, audio amplifiers and driver integrated circuits for consumer electronics; tuners for digital televisions and set-top boxes; modem chipsets for broadband access devices and gaming devices; serializer/deserializers, or SerDes, for fiber optic transceivers; focal plan arrays for imaging applications; controllers for power amplifier and switching chips in cellular phones and

wireline interfaces for switches and routers.

Competition

The global semiconductor foundry industry is highly competitive. We broadly compete with the pure-play advanced technology node-driven foundry service providers such as Taiwan Semiconductor Manufacturing Corporation ("TSMC"), United Microelectronics Corporation ("UMC"), Global Foundries Inc. and Semiconductor Manufacturing International Corp.("SMIC"). These four foundries primarily compete against one another and focus on 12" deep-submicron CMOS processing. They each also have some capacity for a narrow set of specialty process technologies. The rest of the foundry industry generally targets either industry standard 8'' CMOS processing or specialty process technologies. It includes existing Chinese, Korean and Malaysian foundries. We compete most directly in the specialty segment with foundries such as Vanguard, DongBu, X-Fab, ASMC, Grace, HHNEC, and Silterra. We also compete with integrated device manufacturers that have internal semiconductor manufacturing capacity or foundry operations, such as IBM, that produce ICs for their own use and/or allocate a portion of their manufacturing capacity to foundry operations. Most of the foundries with which we compete are located in Asia-Pacific and benefit from their close proximity to other companies involved in the design of ICs. The principal elements of competition in the wafer foundry market are:

- technical competence;
- production quality;
- time-to-market & manufacturing cycle time;
- available capacity;
- device yields;
- design and customer support services;
- access to intellectual property;
- price;
- management expertise;
- strategic relationships;
- research and development capabilities; and
- stability and reliability of supply in order to be a trusted supplier.

Many of our competitors have greater manufacturing capacity, multiple manufacturing facilities, longer or more established relationships with their customers, a more diverse customer base, superior research and development capability, better cost structure and greater financial, marketing and other resources. As a result, these companies may be able to compete more aggressively over a longer period of time than us.

We seek to compete primarily on the basis of advanced specialty technology, breadth of product offering, production quality, technical support and our design, engineering and manufacturing services. We have a differentiated service offering and proven track record in specialized markets, which enables us to effectively compete with larger foundry service providers.

As our competitors continue to increase their manufacturing capacity, there could be an increase in specialty semiconductor capacity during the next several years. As specialty capacity increases, there may be more competition and pricing pressure on our services, and underutilization of our capacity may result. Any significant increase in competition or pricing pressure may erode our profit margins, weaken our earnings or increase our losses.

Additionally, some semiconductor companies have advanced their CMOS designs to 90 nanometer or smaller geometries. These smaller geometries may provide customers with performance and integration features that may be comparable to, or exceed, features offered by our specialty process technologies, and may be more cost-effective at higher production volumes for certain applications, such as when a large amount of digital content is required in a mixed-signal semiconductor and less analog content is required. Our specialty process technologies will therefore compete with these advanced CMOS processes for customers and some of our potential and existing customers could elect to design these advanced CMOS processes into their next generation products. We are not currently capable, and do not currently plan to become capable, of providing CMOS processes at these smaller geometries.

WAFER FABRICATION SERVICES

Wafer fabrication is an intricate process that consists of constructing layers of conducting and insulating materials on raw wafers in intricate patterns that give the IC its function. IC manufacturing requires hundreds of interrelated steps performed on different types of equipment, and each step must be completed with extreme accuracy for finished ICs to work properly. The process can be summarized as follows:

Circuit Design. IC production begins when a fabless IC company or IDM designs (or engages our design services) the layout of a device's components and designates the interconnections between each component. The result is a pattern of components and connections that defines the function of the IC. In highly complex circuits, there may be more than 43 layers of electronic patterns. After the IC design is complete, we provide these companies with IC manufacturing services.

Mask Making. The design for each layer of a semiconductor wafer is imprinted on a photographic negative, called a reticle or mask. The mask is the blueprint for each specific layer of the semiconductor wafer.

IC Manufacturing. Transistors and other circuit elements comprising an IC are formed by repeating a series of processes in which photosensitive material is deposited on the wafer and exposed to light through a mask. Advanced IC manufacturing processes consist of hundreds of steps, including photolithography, oxidation, etching and stripping of different layers and materials, ion implantation, deposition of thin film layers, chemical mechanical polishing and thermal processing. The final step in the IC manufacturing process is wafer probe, which involves electronically inspecting each individual IC in order to identify those that are operable for assembly.

Assembly and Test. After IC manufacture, the wafers are transferred to assembly and test facilities. In the assembly process, each wafer is cut into dies, or individual semiconductors, and tested. Defective dies are discarded, while good dies are packaged and assembled. Assembly protects the IC, facilitates its integration into electronic systems and enables the dissipation of heat or cold. Following assembly, the functionality, voltage, current and timing of each IC is tested. After testing, the completed IC is shipped to the customer.

Procurement and Sourcing

Our manufacturing processes use many highly specialized materials, including silicon wafers, chemicals, gases, photomasks and various metals. These raw materials generally are available from several suppliers. In many instances, we purchase raw materials from a single source to obtain preferred pricing. In those cases, we generally also seek to identify, and in some cases qualify, alternative sources of supply.

In addition, we have agreements with several key material suppliers under which they hold similar levels of inventory at our warehouse and fab for our use. We are not under any obligation under these agreements to purchase raw material inventory that is held by our vendors at our sites until we actually use it, unless we hold the inventory beyond specified time limits.

RESEARCH AND DEVELOPMENT

Our future success depends, to a large degree, on our ability to continue to successfully develop and introduce to production advanced process technologies that meet our customers' needs. Our process development strategy relies on CMOS process platforms that we license and transfer from third parties or develop ourselves.

From time to time, at a customer's request, we develop a specialty process module, which in accordance with the applicable agreement may be used for such customer on an exclusive basis, or added to our process offering. Such developments are very common in all of our special process technologies noted above.

Our research and development activities have related primarily to our process, device and design development efforts in all specialty areas that were mentioned above, and have been sponsored and funded by us and in certain cases with some participation by the Israeli Office of the Chief Scientist, or OCS. Accordingly, Tower is subject to restrictions set forth in Israeli law which limit the ability of a company to transfer technologies outside of Israel, if such technologies were developed with OCS funding.

Our research and development activities seek to upgrade and integrate our manufacturing technologies and processes. We maintain a central research and development team primarily responsible for developing cost-effective technologies that can serve the manufacturing needs of our customers. A substantial portion of our research and development activities are undertaken in cooperation with our customers and equipment vendors. Due to the rapid changes in technology that characterize the semiconductor industry, effective research and development is essential to our success. We plan to continue to invest significantly in research and development activities in order to develop advanced process technologies for new applications.

Research and development expenses for the years ended December 31, 2008, 2009 and 20010 were $15.0 million, $23.4 million and $23.9 million, net of government participation of $1.7 million, $2.0 million and $2.7 million, respectively. As of March 31, 2011, we employed 131 professionals in our research and development departments, 21 of whom have PhDs. In addition to our research and development departments located at our facilities in Migdal Haemek and in Newport Beach California, we maintain a design center in Netanya, Israel.

PROPRIETARY RIGHTS

Intellectual Property and Licensing Agreements

Our success depends in part on our ability to obtain patents, licenses and other intellectual property rights covering our production processes. To that end, we have obtained certain patents, acquired patent licenses and intend to continue to seek patents on our production processes.

As of March 31, 2011, we held 197 patents in force in the United States and 33 patents in force in foreign countries. We have entered into various patent and other technology license agreements, with technology companies including Toshiba, Freescale, Synopsys, ARM, Cadence, Polarfab and others, under which we have obtained rights to additional technologies.

We constantly seek to strengthen our technological expertise through relationships with technology companies We seek to expand our core strengths in CMOS image sensors, embedded flash, power management, RF, SiGe, MEMs and mixed-signal technologies by continuous development in these areas. A main component of our process development strategy is to acquire licenses for standard CMOS technologies and cell libraries from leading designers, such as Freescale and Toshiba, and further develop specialized processes through our internal design teams. The licensing of these technologies has significantly reduced our internal development costs.

In connection with the separation of Jazz Semiconductor's business from Conexant in 2002, Conexant contributed to Jazz Semiconductor a substantial portion of its intellectual property, including software licenses, patents and intellectual property rights in know-how related to its business. Jazz Semiconductor agreed to license intellectual property rights relating to the intellectual property contributed to Jazz Semiconductor by Conexant back to Conexant and its affiliates. Conexant may use this license to have Conexant products produced by third-party manufacturers and to sell such products, subject to obtaining Jazz Semiconductor's prior consent.

Our ability to compete depends on our ability to operate without infringing upon the proprietary rights of others. The semiconductor industry is generally characterized by frequent litigation over patent and other intellectual property rights. As is the case with many companies in the semiconductor industry, we have from time to time received communications from third parties asserting that their patents cover certain of our technologies or alleging infringement of intellectual property rights. We expect that we will receive similar communications in the future. Irrespective of the validity or the successful assertion of such claims, we could incur significant costs and devote significant management resources in defending these claims, which could seriously harm us.

Design Services

To better serve our customers' design needs using advanced CMOS and mixed-signal processes, we have entered into a series of agreements with leading providers of physical design libraries, mixed-signal and non volatile memory design components. These components are basic design building blocks, such as standard cells, interface input-output (I/O) cells, software compilers for the generation of on-chip embedded memories arrays, mixed-signal and non-volatile memory design blocks. To achieve optimal performance, all of these components must be customized to work with our manufacturing process. These components are used in most of our customers' chip designs.

We interact closely with customers throughout the design development and prototyping process to assist them in the development of high performance and low power consumption semiconductor designs and to lower their final die, or individual semiconductor, costs through die size reductions and integration. We provide engineering support and services as well as manufacturing support in an effort to accelerate our customers' design and qualification process so that our customers can achieve faster time to market. We have entered into alliances with Cadence Design Systems, Inc., Synopsys, Inc., Mentor Graphics Corp., and other leading suppliers of electronic design automation tools, and also licensed standard cells, I\O and SRAM technologies from ARM and Synopsys, Inc., leading providers of physical intellectual property components for the design and manufacture of ICs. Through these relationships, we provide our customers with the ability to simulate the behavior of our processes in standard electronic design automation, or EDA, tools. To provide additional functionality in the design phase, we offer our customers standard and proprietary models within design kits that we have developed. These design kits, which collectively comprise our design library, and design platform, allow our customers to quickly simulate the performance of a semiconductor design with our processes, enabling them to refine their product design before actually manufacturing the semiconductor.

The applications for which our specialty process technologies are targeted present challenges that require an in-depth set of simulation models. We provide these models as an integral part of our design platform. At the initial design stage, our customers' internal design teams use our proprietary design kits to design semiconductors that can be successfully and cost-effectively manufactured using our specialty process technologies. Our engineers, who typically have significant experience with analog and mixed-signal semiconductor design and production, work closely with our customers' design teams to provide design advice and help them optimize their designs for our processes and their performance requirements. After the initial design phase, we provide our customers with a multi-project wafer service to facilitate the early and rapid use of our specialty process technologies, which allows them to gain early access to actual samples of their designs. Under this multi-project wafer service, we schedule a bimonthly multi-project wafer run in which we manufacture several customers' designs in a single mask set, providing our customers with an opportunity to reduce the cost and time required to test their designs. We believe that our circuit design expertise and our ability to accelerate our customers' design cycle while reducing their design costs represent one of our competitive strengths.

Our design center helps customers accelerate the design-to-silicon process and enhances first-time silicon success by providing them with the required design resources and capabilities. Our design services can assist in all or part of the design flow. Our in-depth knowledge of the fab and processes provide a substantive advantage when implementing designs that reach the boundaries of technology. In addition, our IP and engineering services can assist and relieve some of our customers' efforts, providing the specific skills and expertise critical for successful implementation of our customers' design on our manufacturing process.

We also operate an Authorized Design Center (TADC) program which comprises qualified design partners specialized in our process that can facilitate design work for our customers to effectively manufacture their products at our facilities. The TADC program offers capabilities to design both complete ICs and embedded intellectual property (IP) blocks and, in addition, supports specific design stages in the chip development process.

C. ORGANIZATIONAL STRUCTURE

The legal and commercial name of our company is Tower Semiconductor Ltd. Tower was incorporated under the laws of the State of Israel in 1993. Tower has two wholly-owned subsidiaries, Tower Semiconductor USA, Inc. and Jazz Technologies, both of which are incorporated in the United States. Jazz Technologies, Inc. has a wholly-owned subsidiary, Jazz Semiconductor, Inc. which has a wholly-owned subsidiary Newport Fab LLC, both of which are incorporated in the United States.

D. PROPERTY, PLANTS AND EQUIPMENT

Manufacturing Facilities

We currently operate three manufacturing facilities—our Fab 1 and Fab 2 facilities in Israel and our Jazz facility in Newport Beach, California. The capacity in each of our facilities at any particular time is variable and depends on the combination of the processes being used and the product mix being manufactured. Hence, it may be significantly lower at certain times as a result of certain of our combinations that may require more processing steps than others. We have the ability to rapidly change the mix of production processes in use in order to respond to changing customer needs and maximize utilization of the fab. In general, our ability to increase our manufacturing capacity has been achieved through the addition of equipment, improvement in equipment utilization, the reconfiguration and expansion of the existing clean room area and the construction of an additional clean room area.

Capital expenditures in 2010, 2009 and 2008 were approximately $89 million, $32 million and $74 million, respectively.

see Item 3., "Failure to comply with the terms of the new grants approved by the Investment Center ……..".

Fab 1

We acquired our Fab 1 facility from National Semiconductor in 1993, which had operated the facility since 1986. The facility is located in Migdal Haemek, Israel. We occupy the facility pursuant to a long-term lease from the Israel Lands Authority that expires in 2032.

Due to the sensitivity and complexity of the semiconductor manufacturing process, a semiconductor manufacturing facility requires a special “clean room” in which most of the manufacturing functions are performed. Our Fab 1 facility includes an approximately 51,900 square foot clean room.

Since we commenced manufacturing at Fab 1, we increased its manufacturing capacity, using our 1.0 micron to 0.35-micron processes, including specialized processes. We estimate that our capacity in Fab 1 when fully utilized is approximately 20,000 150 mm wafer starts per month.

We entered into a long term foundry agreement with Siliconix Incorporated and Siliconix Technology C.V in May 2004 to manufacture products at Fab 1 using process technology that Siliconix transferred to us. During recent years, the parties amended the agreement several times to revise the terms of the purchase of wafers, and transfer additional product platforms to Tower for the manufacturing of new products in Fab 1.

Fab 2

In January 2001, we commenced construction of Fab 2, our advanced wafer fab adjacent to Fab 1. The land on which Fab 2 is located is subject to a long-term lease from the Israel Lands Authority that expires in 2049.

Fab 2 offers integrated circuits manufacturing services utilizing advanced materials and 0.35, 0.18 and 0.13 micron processes. The overall clean room area in Fab 2 is approximately 100,000 square feet. We began volume production at Fab 2 during the third quarter of 2003. Depending on the process technology and product mix, when fully ramped-up, we estimate that Fab 2 will be able to achieve capacity levels of approximately 45,000 wafers per month.

Since 2000, we have invested significantly in the purchase of fixed assets, primarily in connection with the construction of Fab 2, technology advancement and capacity expansion.

We have registered liens in favor of the State of Israel and our banks on substantially all of our present and future assets, including Fab 1 and Fab 2 (see “Item 5 – Operating and Financial Review and Prospects – B. Liquidity and Capital Resources – Fab 2 Agreements – Credit Facility”).

Newport Beach

Jazz's headquarters and manufacturing facilities are located in Newport Beach, California. The manufacturing facility comprises 320,000 square feet, including 120,000 square feet of overall clean room area. The headquarters space comprises 68,000 square feet of offices. Depending on the process technology and product mix, when fully utilized, we estimate it is able to achieve capacity levels of approximately 20,000 wafers per month.

Jazz leases the use of these facilities under non-cancellable operating leases that expire March 2017 and has a unilateral option to extend the terms of each of these leases for two consecutive five-year periods ending in 2027.

ENVIRONMENTAL, SAFETY AND QUALITY MATTERS AND CERTIFICATIONS

We have placed significant emphasis on achieving and maintaining a high standard of manufacturing quality.

For environmental, our operations are subject to a variety of laws and governmental regulations relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in our production processes. Failure to comply with these laws and regulations could subject us to material costs and liabilities, including costs to clean up contamination caused by our operations. All our facilities are ISO 14000 certified, an international standard that provides management guidance to achieve an effective environmental management system. Procedures have been established at all our locations to ensure all accidental spills and discharges are properly addressed. The environmental management system assists in evaluating compliance status with all applicable environmental laws and regulations as well as establishing loss prevention and control measures. In addition, our Newport Beach facility is subject to strict regulations and periodic monitoring by the United States Environmental Protection Agency along with several state and local environmental U.S. agencies. With these systems, we believe we are currently in compliance in all material respects with applicable environmental laws and regulations.

For safety, all our facilities are OHSAS 18000 certified, an international occupational health and safety standard that provides guidance to achieve an effective health and safety management system. The health and safety standard management system assists in evaluating compliance status with all applicable health and safety laws and regulations as well as establishing preventative and control measures. We believe we are currently in compliance with all applicable health and safety laws and regulations.

For quality, all our facilities are ISO 9001 certified, an international quality standard that provides guidance to achieve an effective quality management system. In addition, all our facilities are TS16949 certified, a more stringent automotive quality standard.

Our goal in implementing OHSAS 18001, ISO 14001, ISO 9001 and TS16949 systems is to continually improve our environmental, health, safety and quality management.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not Applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

A. OPERATING RESULTS

Management's Discussion and Analysis of Financial Condition and Results of Operations

The information contained in this section should be read in conjunction with our consolidated financial statements for the year ended December 31, 2010 and related notes and the information contained elsewhere in this annual report. Our financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("US GAAP"). Prior to the fourth quarter of 2007, we prepared our financial reports in accordance with generally accepted accounting principles in Israel and provided reconciliation to US GAAP in the notes to the financial statements. The amounts included in our financial statements and in this report for those periods have been recast to US GAAP.

Overview

We are a pure-play independent specialty foundry dedicated to the manufacture of semiconductors. Pure-play foundries do not offer any products of their own, but focus on producing integrated circuits based on the design specifications of their customers. We manufacture semiconductors using advanced production processes for our customers primarily based on third party designs and our own proprietary designs. We currently offer the manufacture of ICs with geometries ranging from 1.0 to 0.13-micron.

In September 2008, Tower completed its merger with Jazz Technologies in a stock for stock transaction. Upon the closing of the merger with Jazz, each outstanding share of Jazz common stock was converted into 1.8 ordinary shares of Tower, each outstanding warrant, option and convertible debenture to acquire one Jazz common stock became exercisable for 1.8 ordinary shares of Tower.

During the year ended December 31, 2010, we had five significant customers who contributed between 5% to 16% of our revenues. During the year ended December 31, 2009, we had three significant customers who contributed between 7% to 17% of our revenues. In 2008, we had five significant customers who contributed between 5% to 17% of our revenues.

The percentage of our sales from customers located outside the United States was 31%, 21% and 23% in the years ended December 31, 2010, 2009 and 2008, respectively. We believe that a substantial portion of our sales will continue to come from customers located outside the United States.

Critical Accounting Policies

Revenue Recognition.

The Company's net revenues are generated principally from sales of semiconductor wafers. The Company derives the remaining balance of net revenues from engineering services and other support services. The majority of the Company's revenue is achieved through the efforts of its direct sales force.

In accordance with generally accepted accounting principles, the Company recognizes revenues from the sale of products when the following fundamental criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred or services have been rendered, (iii) the price to the customer is fixed or determinable; and (iv) collection of the resulting receivable is reasonably assured. These criteria are usually met at the time of product shipment. Revenues are recognized when the acceptance criteria are satisfied, based on performing electronic, functional and quality tests on the products prior to shipment. Such Company testing reliably demonstrates that the products meet all of the specified criteria prior to formal customer acceptance; hence, collection of payment for services is reasonably assured.

Revenues for engineering and other services are recognized ratably over the contract term or as services are performed. Revenues from contracts with multiple elements are recognized as each element is earned based on the relative selling price of each element. An element is recognized separately when the undelivered elements are not essential to the functionality of the delivered elements and when the amount is not contingent upon delivery of the undelivered elements. Advances received from customers towards future engineering services, product purchases and in some cases capacity reservation are deferred until services are rendered, products are shipped to the customer, or the capacity reservation period ends.

Revenue relating to a turn-key agreement with an Asian entity are recognized based on ASC 605-35 (formerly SOP 81-1 “Accounting for Performance of Construction Type and Certain Production Type Contracts”) using contract accounting of the percentage of completion method. Measurement of the percentage toward completion is determined, based on the ratio of actual labor hours incurred to total labor hours estimated to be incurred over the duration of the contract.

Our revenue recognition policy is significant because our revenues are a key component of our results of operations. We follow very specific and detailed guidelines in measuring revenue; however an accrual for estimated sales returns and allowances relating to specific yield or quality commitments, which is computed primarily on the basis of historical experience and specific identification, is recorded. Any changes in assumptions for determining the accrual for returns and other factors affecting revenue recognition may affect mainly the timing of our revenue recognition and cause our operating results to vary from quarter to quarter. Changes in assumptions for determining the percentage toward completion for the turn-key agreement with the Asian entity, may also affect the timing of our revenue recognition. Accordingly, our financial position and results of operations may be affected.

Depreciation and Amortization.

We are heavily capital oriented and the amount of depreciation is a significant amount of our yearly expenses. Changes to the useful lives assumption and hence the depreciation may have a material impact on our results of operations. Depreciation and amortization expenses in 2010 amounted to $143.0 million. During the third quarter of 2003, we commenced depreciating the Fab 2 property and equipment and amortizing the 0.18-micron technology, based on the straight-line method. Currently, we estimate that the expected economic life of our assets is as follows: (i) buildings (including facility infrastructure) –10 to 25 years; (ii) machinery and equipment, software and hardware – 3 to 7 years; and (iii) the 0.18-micron and 0.13 micron technology – 4 years, with each amortization phases commencing

on the date on which such Fab 2 manufacturing line became ready for its intended use. . Changes in our estimates regarding the expected economic life of our assets, might affect our depreciation and amortization expenses.

Impairment of Fixed Assets and Intangible Assets.

Management reviews long-lived assets and intangible assets on a periodic basis, as well as when such a review is required based upon relevant circumstances to determine whether events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. For those assets that have definite useful lives, recoverability tests are performed based on undiscounted expected cash flows. When the asset is not recoverable an impairment loss should be computed based on the difference between the carrying amount of the assets (or asset group) and the fair value. The fair value in most instances will be determined using present value techniques applied to expected cash flows. Changes in the assumptions used in forecasting future cash flows and the fair value of the assets may have significant effect on determining whether an impairment charge is required and hence may affect our results of operations.

Impairment of Goodwill.

Goodwill is subject to an impairment test on at least an annual basis or upon the occurrence of certain events or circumstances. Goodwill impairment is assessed based on a comparison of the fair value of the unit, to which the goodwill is ascribed to with the underlying carrying value of its net assets, including goodwill. If the carrying amount of the unit exceeds its fair value, the implied fair value of the goodwill is compared with its carrying amount to measure the amount of impairment loss, if any. Changes in the assumptions used in calculation of the fair value of the unit may have significant effect on determining whether an impairment charge is required and hence may affect our results of operations.

Convertible Debentures.

In accordance with ASC 470-20 “Debt with Conversion and Other Options “(formerly “APB 14”), we allocate the proceeds from the sale of securities to each security issued based on their relative fair value.

We are required, according to ASC Topic 815 "Derivatives and Hedging", to determine whether the conversion option embedded in the convertible debt should be bifurcated and accounted for separately. Such determination is based on whether on a stand alone basis such conversion option would be classified as equity. If the option can be classified as equity, no bifurcation is required. The analysis required under ASC Topic 815 involves the consideration of many factors and assumptions. Any changes in those factors or assumptions may have a significant effect on determining whether embedded derivatives are required to be bifurcated and hence may affect our results of operations.

Income Taxes.

The Company accounts for income taxes in accordance with ASC 740, “Income Taxes”. This Topic prescribes the use of the liability method whereby deferred tax asset and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities. Deferred taxes are computed based on the tax rates anticipated (under applicable law as of the balance sheet date) to be in effect when the deferred taxes are expected to be paid or realized.

We evaluate the realizability of our deferred tax assets for each jurisdiction in which we operate at each reporting date, and establish valuation allowances when it is more likely than not that all or a portion of our deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income of the same character and in the same jurisdiction. We consider all available positive and negative evidence in making this assessment, including, but not limited to, the scheduled reversal of deferred tax liabilities and projected future taxable income. In circumstances where there is sufficient negative evidence indicating that our deferred tax assets are not more-likely-than-not realizable, we establish a valuation allowance. Due to the material losses carryforward of Tower as of December 31, 2010 and uncertainties with regard to its utilization in the future, a valuation allowance was created on such deferred tax assets in Tower, however deferred tax assets were recorded in Jazz.

We use a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate tax positions taken or expected to be taken in a tax return by assessing whether they are more-likely-than-not sustainable, based solely on their technical merits, upon examination and including resolution of any related appeals or litigation process. The second step is to measure the associated tax benefit of each position as the largest amount that we believe is more-likely-than-not realizable. Differences between the amount of tax benefits taken or expected to be taken in our income tax returns and the amount of tax benefits recognized in our financial statements, represent our unrecognized income tax benefits, which we either record as a liability or as a reduction of deferred tax assets. Our policy is to include interest and penalties related to unrecognized income tax benefits as a component of income tax expense.

Initial Adoption of New Standards and Recently Issued Accounting Standards

ASU 2009-5 - Fair Value Measurement and Disclosures of Liabilities

Effective January 1, 2010, the Company adopted FASB Accounting Standards Update (“ASU”) No. 2009-05, “Fair Value Measurement and Disclosures Topic 820 - Measuring Liabilities at Fair Value”, which provides amendments to subtopic 820-10, Fair Value Measurements and Disclosures - Overall, for the fair value measurement of liabilities. This update provides clarification that in circumstances that liabilities are measured at fair value, in which a quoted price in an active market for the identical liability is not available, a reporting entity is required to measure fair value using one or more of the following techniques: (1) a valuation technique that uses the quoted price of the identical or similar liability or identical or similar liability when traded as an asset (which would be considered Level 1 fair value measurement); or (2) another valuation technique that is consistent with the principles of Topic 820. The amendments in this update also clarify that when estimating the fair value of a liability, a reporting entity is not required to include an adjustment to the fair value due to the restriction that prevents the transfer of the liability. The adoption of this update did not impact the Company’s consolidated financial position, results of operations or cash flows.

ASU 2010-6 - Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements

In January 2010, the FASB issued ASU No. 2010-06, “Fair Value Measurements and Disclosures”, that requires reporting entities to make new disclosures about recurring or nonrecurring fair-value measurements including significant transfers into and out of Level 1 and Level 2 fair-value measurements and information on purchases, sales, issuances, and settlements on a gross basis in the reconciliation of Level 3 fair-value measurements. The FASB also clarified existing fair-value measurement disclosure guidance about the level of disaggregation, inputs, and valuation techniques. The new and revised disclosures are required to be implemented in interim or annual periods beginning after December 15, 2009, except for the gross presentation of the Level 3 rollforward, which is required for annual reporting periods beginning after December 15, 2010. The adoption of this standard did not have any effect on the Company’s financial position and results of operations.

ASU 2010-17- Revenue Recognition-Milestone Method (Topic 605): Milestone Method of Revenue Recognition (a consensus of the FASB Emerging Issues Task Force)

In April 2010, the FASB issued Revenue Recognition-Milestone Method (Topic 605): Milestone Method of Revenue Recognition (a consensus of the FASB Emerging Issues Task Force). The amendments in this update provide guidance on the criteria that should be met for determining whether the milestone method of revenue recognition is appropriate. A vendor can recognize consideration that is contingent upon achievement of a milestone in its entirety as revenue in the period in which the milestone is achieved only if the milestone meets all criteria to be considered substantive as defined in the ASU.

A vendor’s decision to use the milestone method of revenue recognition for transactions within the scope of the amendments in this update is a policy election. Other proportional revenue recognition methods also may be applied as long as the application of those other methods does not result in the recognition of consideration in its entirety in the period the milestone is achieved.

The update is effective on a prospective basis for milestones achieved in fiscal years, and interim periods within those years, beginning on or after June 15, 2010. The adoption of this update did not have any impact on the Company’s consolidated financial statements.

ASU 2010-25 - Plan Accounting-Defined Contribution Pension Plans (Topic 962): Reporting Loans to Participants by Defined Contribution Pension Plans

In September 2010, the FASB issued this ASU to clarify how loans to participants should be classified and measured by defined contribution pension benefit plans.

Existing guidance requires participant loans to be classified as plan investments, which are generally measured at fair value.

The amendments in this Update require that participant loans be classified as notes receivable from participants, which are segregated from plan investments and measured at their unpaid principal balance plus any accrued but unpaid interest.

The amendments in this Update should be applied retrospectively to all prior periods presented, effective for fiscal years ending after December 15, 2010. The ASU did not have any influence on the company's results of operations.

Recently Issued Accounting Standards

ASU 2010-29 - Business Combinations (Topic 805): Disclosure of Supplementary Pro Forma Information for Business Combinations

In December 2010, the FASB issued this ASU to address diversity in practice about the interpretation of the pro forma revenue and earnings disclosure requirements for business combinations.

The amendments in this update specify that if a public entity presents comparative financial statements, the entity should disclose revenue and earnings of the combined entity as though the business combination(s) that occurred during the current year had occurred as of the beginning of the comparable prior annual reporting period only. The amendments in this update also expand the supplemental pro forma disclosures under Topic 805 to include a description of the nature and amount of material, nonrecurring pro forma adjustments directly attributable to the business combination included in the reported pro forma revenue and earnings.

The amendments in this update are effective prospectively for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2010. Early adoption is permitted. The ASU is not expected to have an influence on the company's results of operations.

ASU 2010-28 Intangibles-Goodwill and Other (Topic 350): When to Perform Step 2 of the Goodwill Impairment Test for Reporting Units with Zero or Negative Carrying Amounts

In December 2010, the FASB issued this ASU to address questions about entities with reporting units with zero or negative carrying amounts. Under Topic 350 on goodwill and other intangible assets, testing for goodwill impairment is a two-step test. When a goodwill impairment test is performed (either on an annual or interim basis), an entity must assess whether the carrying amount of a reporting unit exceeds its fair value (Step 1). If it does, an entity must perform an additional test to determine whether goodwill has been impaired and to calculate the amount of that impairment (Step 2). Because some entities concluded that Step 1 of the test is passed in circumstances of zero or negative carrying amounts, because the fair value of their reporting unit will generally be greater than zero, some constituents raised concerns that Step 2 of the test is not performed despite factors indicating that goodwill may be impaired.

The amendments in this Update modify Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. In determining whether it is more likely than not that goodwill impairment exists, an entity should consider whether there are any adverse qualitative factors indicating that impairment may exist.

For public entities, the amendments in this Update are effective for fiscal years, and interim periods within those years, beginning after December 15, 2010. Early adoption is not permitted.

Upon adoption of the amendments, an entity with reporting units that have carrying amounts that are zero or negative is required to assess whether it is more likely than not that the reporting units’ goodwill is impaired. If the entity determines that it is more likely than not that the goodwill of one or more of its reporting units is impaired, the entity should perform Step 2 of the goodwill impairment test for those reporting unit(s). Any resulting goodwill impairment should be recorded as a cumulative-effect adjustment to beginning retained earnings in the period of adoption. Any goodwill impairments occurring after the initial adoption of the amendments should be included in earnings as required by Section 350-20-35. The ASU did not have any material effect on the company's results of operations.

ASU 2009-13 - Multiple Deliverable Revenue Arrangements

In October 2009, the FASB issued ASU 2009-13, “Multiple Deliverable Revenue Arrangements a consensus of the FASB Emerging Issues Task Force” (formerly topic 08-1) an amendment to ASC 605-25. The update provides amendments to the criteria in Subtopic 605-25 for separating consideration in multiple-deliverable arrangements. The amendments in this update establish a selling price hierarchy for determining the selling price of a deliverable. The selling price used for each deliverable will be based on vendor-specific objective evidence if available, third-party evidence if vendor-specific objective evidence is not available, or estimated selling price if neither vendor-specific objective evidence nor third-party evidence is available. The amendments in this update will also replace the term “fair

value" in the revenue allocation guidance with the term "selling price" in order to clarify that the allocation of revenue is based on entity-specific assumptions rather than assumptions of a marketplace participant.

The amendments will also eliminate the residual method of allocation and require that arrangement consideration be allocated at the inception of the arrangement to all deliverables using the relative selling price method. The relative selling price method allocates any discount in the arrangement proportionally to each deliverable on the basis of each deliverable's selling price.

The update is effective for revenue arrangements entered into or modified in fiscal years beginning on or after June 15, 2010 with earlier adoption permitted. The adoption of this update is not expected to have a material impact on the Company's consolidated financial statements.

ASU 2010-13 - Compensation-Stock Compensation (Topic 718): Effect of Denominating the Exercise Price of a Share-Based Payment Award in the Currency of the Market in Which the Underlying Equity Security Trades.

In April 2010, the FASB issued this ASU to clarify the classification of an employee share-based payment award with an exercise price denominated in the currency of a market in which the underlying equity security trades.

This update provides amendments to Topic 718 to clarify that employee share-based payment awards with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trades should also be classified as an equity award. The update is effective for periods beginning after December 15, 2010. The adoption of this update did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the financial statements and the related notes thereto included in this annual report. The following table sets forth certain statement of operations data as a percentage of total revenues for the years indicated. The results for 2008, 2009 and 2010 include Jazz's results from September 19, 2008.

	Year Ended December 31,		
	2010	2009	2008
Statement of Operations Data:			
Revenues	100 %	100.0 %	100.0 %
Cost of Revenues	79.0	108.9	117.8
Gross profit (loss)	21.0	(8.9)	(17.8)
Research and development expenses, net	4.7	7.8	5.9
Marketing, general and administrative expenses	7.8	10.7	13.2
Write-off of in-process research and development	--	--	0.7
Merger related costs	--	--	0.2
Fixed assets impairment	--	--	47.9
Operating Profit (loss)	8.5	(27.4)	(85.8)
Financing expense, net	(14.3)	(15.3)	(7.0)
Gain on debt restructuring	--	--	51.9
Other income (expense), net	0.0	0.7	(0.4)
Income tax benefit (expense)	(2.5)	1.7	(0.6)
Net Loss	(8.3)%	(40.3)%	(41.8)%

Year Ended December 31, 2010 compared to Year Ended December 31, 2009

Revenue. Revenue for the year ended December 31, 2010 amounted to $509.3 million compared to $298.8 million for the year ended December 31, 2009. The 70% increase in revenues was mainly due to increase in our products' ' shipments and higher utilization in our fabrication facilities due to improved market conditions and increased demand for our specialty products and our specific product offering.

Cost of Total Revenues. Cost of revenues for the year ended December 31, 2010 amounted to $402.1 million, as compared to $325.3 million for the year ended December 31, 2009. Our increase in cost of revenues of 24% is lower than the 70% revenues increase primarily due to the higher utilization of the manufacturing facilities and continuing efforts of the cost reduction plan executed by the Company and synergies captured through the integration of Jazz Technologies ("Jazz").

Gross Profit (Loss). Gross profit for the year ended December 31, 2010 was $107.2 million compared to a gross loss of $26.5 million for the year ended December 31 2009. We achieved such gross profit due to the increased products' shipments and higher utilization in our fabrication facilities due to improved market conditions and increased demand for our specialty products and our specific product offering and cost saving efforts described above.

Research and Development. Research and development expenses for the year ended December 31, 2010 amounted to $23.9 million, substantially the same as the $23.4 million for the year ended December 31, 2009.

Marketing, General and Administrative Expenses. Marketing, general and administrative expenses for the year ended December 31, 2010 amounted to $40.0 million as compared to $31.9 million for the year ended December 31, 2009. Marketing, general and administrative expenses increased mainly due to higher sales commissions and sales related expenses associated with the revenue increase as well as stock based compensation in regard to option grants. However, as a percentage of revenues, marketing, general and administrative expenses decreased to 7.9% for the year ended December 31, 2010 as compared to 10.7% for the year ended December 31, 2009.

Operating Profit (Loss). Operating profit for the year ended December 31, 2010 was $43.3 million, compared to operating loss of $81.8 million for the year ended December 31, 2009. Such $125.1 million improvement is mainly due to the higher gross profit partially offset partially by the higher operating expenses, as detailed above.

Financing Expense, Net. Financing expenses, net for the year ended December 31, 2010 were $72.9 million compared to financing expenses, net of $45.7 million for the year ended December 31, 2009. Such increase was mainly due to increases in the fair value of a portion of our liabilities which are presented at fair value under GAAP.

Income Tax Benefit (Expense). Income tax expenses resulting from Jazz's net income, amounted to $12.8 million in the year ended December 31, 2010 as compared to income tax benefit of $5.0 million for the year ended December 31, 2009. The increase in income tax expenses is due to the increase in Jazz's operating income in the year ended December 31, 2010.

Loss. Loss for the year ended December 31, 2010 was $42.4 million as compared to $120.5 million for the year ended December 31, 2009. Such $78.1 million improvement is due to the $125.1 million improvement in operating profit, which was partially offset mainly by the $27.2 million increase in financing expenses and $17.9 million increase in tax expenses.

Year Ended December 31, 2009 compared to Year Ended December 31, 2008

Revenue. Revenue for the year ended December 31, 2009 increased by 18.7% to $298.8 million from $251.7 million for the year ended December 31, 2008.

Due to the worldwide economic downturn that commenced in 2008 and its effect on the semiconductor industry and us, including global decreased demand, downward price pressure, excess inventory and unutilized capacity worldwide, revenues in all our manufacturing facilities experienced a decline, consistent with the decline in the semiconductor industry worldwide. Total revenues increased by $47.1 million, of which $102.9 million from Jazz less $55.8 from Tower stand alone, excluding Jazz. The inclusion of Jazz's revenue as from the merger date in 2008 resulted in revenues of $56.3 million in 2008 and revenues of $159.2 million in 2009. The decrease of $55.8 million from Tower stand alone, excluding Jazz was comprised of reduction of product shipments while average selling price remained stable. Our revenues for 2009 of $298.8 were comprised from $159.2 million derived from Jazz’s manufacturing site in California, US (mainly from wafer sales of approximately $128.0 million) and $139.6 million derived from Tower’s manufacturing site in Israel (mainly from wafer sales of approximately $110.0 million).

Cost of Total Revenues. Cost of total revenues for the year ended December 31, 2009 amounted to $325.3 million, as compared to $296.5 million for the year ended December 31, 2008. This 9.7% increase in cost of revenues resulted from the inclusion of the costs of Jazz for the full year ended December 31, 2009 (as compared to including the costs of Jazz in the cost of revenues only as of the date of the Jazz Merger in 2008), which was partially offset by the cost reduction plan executed by the Company and synergies captured through the integration of Jazz.

Gross Loss. Gross loss for the year ended December 31, 2009 was $26.5 million compared to a gross loss of $44.9 million for the year ended December 31, 2008. The decrease in gross loss was mainly attributable to the 18.7% increase in revenues which was partly offset by the 9.7% increase in cost of total revenues as described above.

Research and Development. Research and development expenses for the year ended December 31, 2009 amounted to $23.4 million as compared to $15.0 million for the year ended December 31, 2008. This increase in research and development costs resulted from the inclusion of the costs of Jazz for the year ended December 31, 2009 (as compared to including the costs of Jazz only as of the date of the Jazz Merger in 2008), which was partially offset by the cost reduction plan executed by the Company and synergies captured through the integration of Jazz.

Marketing, General and Administrative Expenses. Marketing, general and administrative expenses for the year ended December 31, 2009 amounted to $31.9 million as compared to $33.2 million for the year ended December 31, 2008. The decrease in marketing, general and administrative expenses is mainly attributed to the cost reduction plan executed by the Company and synergies captured through the integration of Jazz, which was partially offset by the inclusion of the costs of Jazz for the year ended December 31, 2009 (as compared to including the costs of Jazz only as of the date of the Jazz Merger in 2008).

Fixed Assets Impairment. Fixed assets impairment amounted to $120.5 million in the year ended December 31, 2008. No impairment was required in the year ended December 31, 2009.

Operating Loss. Operating loss for the year ended December 31, 2009 was $81.8 million, compared to $215.9 million for the year ended December 31, 2008. The decrease in the operating loss was mainly due to the one-time fixed assets impairment (as mentioned above) in the year ended December 31, 2008. The amount of operating loss, excluding any one-time items in 2008, (which are comprised of $120.5 fixed assets impairment and $2.3 million write off of in process research and development and merger related costs), decreased by $11.2 million as compared to the year ended December 31, 2008. Such decrease was mainly attributable to the cost reduction plan executed by the Company and synergies captured through the integration of Jazz.

Financing Expenses, Net. Financing expenses, net for the year ended December 31, 2009 were $45.7 million compared to financing expenses, net of $17.6 million for the year ended December 31, 2008. Such increase was mainly due to the inclusion of financing expenses of Jazz, mainly related to convertible notes, for the year ended December 31, 2009 (as compared to including the costs of Jazz only as of the date of the Jazz Merger in 2008) and due to measuring at fair value part of our convertible debentures, options, warrants and loans.

Gain On Debt Restructuring. No such gain or loss on debt restructuring was recorded in the year ended December 31, 2009. Income Tax Benefit (Provision). Income Tax Benefit in relation to Jazz amounted to $5.0 million in the year ended December 31, 2009, $6.5 million higher as compared to $1.5 million income tax provision in the year ended December 31, 2008, mainly due to state tax benefit due to unitary filing of Tower and Jazz tax reports with the state of California.

Loss. Loss for the year ended December 31, 2009 was $120.5 million as compared to $105.1 million for the year ended December 31, 2008. This increase was mainly attributed to the $130.7 million of gain on debt restructuring in the year ended December 31, 2008 and the $28.1 million increase in financing expense, net, which was partially offset by the $134.1 million of lower operating loss in the year ended December 31, 2009 and $6.5 million higher income tax benefit.

Impact of Inflation and Currency Fluctuations

The US Dollar cost of our operations in Israel is influenced by the timing of any change in the rate of inflation in Israel and the extent to which such change is not offset by the change in valuation of the NIS in relation to the US Dollar. During the year ended December 31, 2010, the exchange rate of the US Dollar in relation to the NIS decreased by 6%, and the Israeli Consumer Price Index, or CPI, increased by 2.7% (during the year ended December 31, 2009 there was a decrease of 0.7% in the exchange rate of the US Dollar in relation to the NIS and an increase of 3.9% in the CPI).

We believe that the rate of inflation in Israel has not had a material effect on our business to date. However, our US Dollar costs will increase if inflation in Israel exceeds the devaluation of the NIS against the US Dollar.

Nearly the entire cash generated from our operations and from our financing and investing activities is denominated in US Dollars and NIS. Our expenses and costs are denominated in NIS, US Dollars, Japanese Yen and Euros. We are, therefore, exposed to the risk of currency exchange rate fluctuations.

Tower's and Jazz's bank loans mainly provide for interest based on a floating LIBOR rate, and we are therefore exposed to interest rate fluctuations. From time to time, we engage in various hedging strategies to reduce our exposure to some, but not all, of these risks and intend to continue to do so in the future. However, despite any such hedging activity, we are likely to remain exposed to interest rate fluctuations, which may increase the cost of our business activities, particularly our financing expenses.

Part of Tower's debentures are denominated in NIS linked to the Israeli CPI and therefore we are exposed to fluctuation of the NIS/US Dollar exchange rate. The US Dollar amount of our financing costs (interest and currency adjustments) related to these debentures will increase if the rate of inflation in Israel is not offset by the devaluation of the NIS in relation to the US Dollar. In addition, the US Dollar amount of any repayment on account of the principal of these debentures will also increase.

The quantitative and qualitative disclosures about market risk are in Item 11 of this annual report.

B. LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2010, we had an aggregate of $100.4 million in cash and cash equivalents and an aggregate amount of $98.0 million in interest bearing deposits, including designated deposits as compared to $81.8 million of cash and cash equivalents we had as of December 31, 2009.

During the year ended December 31, 2010, we raised $158.8 million on account of shareholders' equity (for further details see Notes 12E and 16I to our consolidated financial statements included in this report), and generated a net amount of $121.4 million from our operating activities. These liquidity resources financed the capital investments we made during the year ended December 31, 2010, which aggregated to an amount of $106.1 million and the repayment of debts in the amount of $57.6 million.

As of December 31, 2010, loans from banks were presented on our balance sheet in the amount of $141.9 million, of which $30.0 million are presented as short-term. As of such date, we presented an aggregate of $339.8 million of debentures on our balance sheet, of which $92.2 million are presented as short-term.

During the past seven quarters, we experienced business, financial and economic improvement, as reflected by the improvement in our revenue, gross profit, operating profit, net profit/ loss and cash flow from operating activities as compared to the period prior to mid 2009 which was negatively affected by the global economic downturn that commenced in 2008. However, market analysts are currently cautious in regards to the global economic conditions forecasted for 2011 and beyond, and there can be no assurance that the improvement in our business and financial position will continue and there is no assurance that another downturn in the semiconductor industry and/or in the global economy will not occur. The effects of another downturn in the semiconductor industry and/or in the global economy, may include global decreased demand, downward price pressure, excess inventory and unutilized capacity worldwide, which may negatively impact consumer and customer demand for our products and the end products of our customers, as well as our commercial relationships with our customers, suppliers, and creditors, including our lenders. Another downturn in the semiconductor industry and/or in the global economy may adversely affect our plans to continue our capacity growth and to explore expansion opportunities, and our future financial results and position, including our ability to fulfill our debt obligations and other liabilities, comprised mainly of banks' loans and debentures.

We continue to work in various ways to fund our growth plans in order to continue our capacity growth and to explore expansion opportunities and fulfill our debt obligations and other liabilities, including, among others, debt restructuring and/or refinancing, exploring fund raising opportunities, sale of assets, liquidation of Jazz's holdings in HHNEC, intellectual property licensing, possible sale and lease-back of real estate assets, improving operational efficiencies and sales and submitting reports with the Israeli Investment Center which are yet to be reviewed and approved in order to receive the recently approved grants under our approval certificate. In June 2010, Jazz entered into an agreement with Wells Fargo to extend $45 million of revolving credit lines through September 2014, and in July 2010 Jazz entered into an agreement to exchange approximately $80 million of convertible bonds originally due 2011 for newly issued non-convertible notes due June 2015. Further, during 2010, Tower signed and closed definitive agreements with the Israeli Banks, as amended in February 2011, to reschedule its loans and raised approximately $100 million through the issuance of long-term convertible debentures repayable in two equal installments on December 2015 and December 2016, see details in Notes 6C, 11B, 12, 16F, 16I-L to the consolidated financial statements included in this report.

For implications on our operations if we do not generate increased levels of cash from operations and/or do not raise additional funding and if we will not be in compliance with the repayment schedule under the amended facility agreement and are unsuccessful in negotiating a revised repayment schedule, see Item 3. Key Information - Risk Factors - Risks Affecting Our Business.

Fab 2 Agreements

For information regarding agreements with Israel Corp., our banks and others see Notes 11B and 15 to the 2010 annual consolidated financial statements.

Tower's Credit Facility

As of March 31, 2011, Tower's outstanding debt under its credit facility with Bank Leumi and Bank Hapoalim was approximately $146 million, which carries interest at a rate of three-month USD LIBOR plus 2.75% per annum.

Agreements and Amendments

In September 2008, Tower signed and closed definitive agreements with the banks and TIC. Pursuant to the agreements: (i) $200 million of Tower's debt to the banks was converted into equity equivalent capital notes of Tower at a conversion ratio of $1.42, exercisable into Tower's ordinary shares, representing two times the average closing price per share on NASDAQ for the ten trading days prior to August 7, 2008 ,the date of Tower's public announcement regarding its debt conversion negotiations with the banks and TIC (see below for more data regarding the equity equivalent capital notes); (ii) the commencement date for the repayment of the remaining principal of the banks' loans was postponed from September 2009 to September 2010, such that the outstanding loans shall be repaid in eight equal quarterly installments between September 2010 and June 2012 (which was further revised in the August 2009 amendment to the Facility Agreement and 2010 definitive agreements with the Israeli Banks- see below); (iii) interest payments owed to the banks and originally due September 2008 through June 2009 were added to the remaining principal of the bank's loans and will be paid according to the same schedule; (iv) the interest rate on the remaining principal of the bank's loans was set to be USD LIBOR plus 2.5% per annum; (v) the banks waived in full Tower's compliance with financial covenants through the end of 2008 (which waiver was extended through December 31, 2009 in the August 2009 amendment to the Facility Agreement - see below); (vi) $50 million of debt owed by Tower to TIC (consisting of $30 million owed under a credit line loan facility and $20 million of Tower's convertible debentures series B held by TIC) were converted into equity equivalent capital notes at a conversion ratio of $1.42 exercisable into Tower's ordinary shares, representing two times the average closing price per share on NASDAQ for the ten trading days prior to August 7, 2008; and (vii) TIC invested $20 million in Tower in exchange for approximately 28.2 million equity equivalent capital notes exercisable into Tower's ordinary shares, based on the average closing price per share on NASDAQ for the ten trading days prior to August 7, 2008.

In connection with the abovementioned restructuring deal, TIC committed to invest up to an additional $20 million under certain conditions. In January 2009, such conditions were satisfied and TIC invested said amount in exchange for approximately 76.9 million equity equivalent capital notes of Tower, exercisable into ordinary shares of Tower.

Under an amendment to the facility agreement made in September 2006, Tower agreed to compensate the banks for a reduction of the applicable interest rate on the loans of 1.4% effective as of May 2006, by issuing them an additional number of shares (or equity equivalent capital notes or convertible debentures) on or about December 31, 2010, calculated based on the amount of decreased interest payments. On February 2011, the Company issued approximately 8.5 million shares to the banks in consideration for the interest rate reduction.

During 2009, the Banks and Tower entered into an amendment to the Facility Agreement to: (i) revise the repayment schedule of the outstanding loans to 8 equal quarterly installments from September 2011 until June 2013 (which was further revised in the 2010 definitive agreements with the Israeli Banks); (ii) waive the financial covenants stipulated in the Facility Agreement through December 31, 2009; (iii) upon certain circumstances, as stipulated in the amendment, and following receipt by Tower of significant amounts of proceeds from a certain source, Tower will pay a portion of such proceeds on account of the outstanding loans prior to the due date specified above; and (iv) extend the Banks' existing warrants to June 2013 (which was further revised in the 2010 definitive agreements with the Israeli Banks) and grant the Banks new warrants in three annual tranches of $1 million each.

During 2010, Tower signed and closed definitive agreements with the Israeli Banks, as supplemented in February 2011 pursuant to which: (1) the Israeli Banks provided Tower with a consent to issue additional up to $100 million of long-term debentures, which issuance was made by Tower in October 2010, see Note 12E to the consolidated financial statements included in this report; (2) Tower paid to the banks a total of approximately $65 million of its loans during the twelve months period ended March 31, 2011 and committed to pay an additional amount of $15 million in December 2011; (3) the commencement date for the repayment of the remaining principal of the Israeli Banks' loans in an amount of approximately $131 million, was extended such that the outstanding loans would be repaid in nine quarterly installments between September 2013 and September 2015; (4) the interest rate on the remaining principal of the Israeli Bank's loans was set to be USD LIBOR plus 2.75% per annum; (5) upon certain circumstances stipulated in the Banks' agreements, including following receipt by Tower of significant amounts of proceeds from certain sources, Tower will pay a portion of such proceeds on account of the outstanding loans prior to the periods specified above; (6) All warrants granted to the Israeli Banks were extended to December 2015; (7) Tower agreed to pay fees to the Israeli Banks; and (8) Tower agreed to designate up to $50 million of short-term deposits for the purpose of securing future debt payments.

Compliance with Financial Ratios and Covenants.

Under the terms of its amended facility agreement, Tower must meet certain financial ratios, including mainly financial covenants relating to quarterly sales, quarterly earnings before interest, taxes, depreciation and amortization (quarterly EBITDA), "life of loan coverage ratio" (which is the ratio of the Fab 2 net cash flow to the total debt related to Fab 2 in any quarter), ratio of debt to EBITDA and ratio of equity to assets. Under the terms of the amended facility agreement, satisfying these financial ratios and covenants is a material provision.

As of December 31, 2010, Tower was in full compliance with all of the covenants under the amended facility agreement, as amended to date.

The amended facility agreement provides that if, as a result of any default, the banks were to accelerate Tower's obligations, Tower would be obligated, among other matters, to immediately repay all loans made by the banks (which as of March 31, 2011 amounted to approximately $146 million) plus penalties, and the banks would be entitled to exercise the remedies available to them under the amended facility agreement, including enforcement of their liens against all of Tower's assets.

Under the terms of the amended facility agreement, (i) there are limitations on changes of ownership which generally require that, TIC hold a minimum of approximately 48 million of our ordinary shares (including shares issuable upon conversion of our equity equivalent capital notes), and (ii) TIC and our largest wafer partners nominate a majority of our board of directors, subject to exceptions; and (iii) additional conditions and covenants, including restrictions on incurring debt and a prohibition on the distribution of dividends.

All issued equity equivalent capital notes described in this report and in the consolidated financial statements included in this report have no voting rights, no maturity date, no dividend rights, are not tradable, are not registered, do not carry interest, are not linked to any index and are not redeemable. In January 2007, at the request of the Banks and Israel Corp. (the holders of the equity equivalent capital notes) pursuant to their right to request registration, the Company filed a registration statement with the SEC on Form F-3 for the registration of the shares underlying the capital notes. The SEC, among other comments, required that the Banks and Israel Corp be named as underwriters for purposes of this registration statement. The Banks and Israel Corp. did not agree to be named as underwriters and in 2008 asked the Company to withdraw the registration statement. The shares underlying the equity equivalent capital notes remain unregistered under the US Securities Act of 1933. The equity equivalent capital notes are classified in shareholders' equity.

Investment Center Grants

In recent years, Tower has been holding discussions with the Investment Center to achieve satisfactory arrangements to approve a new expansion program since January 1, 2006, as a result of which it has been notified in December 2010 by senior governmental officials that the Israeli Investment Center Committee has approved the Company's program according to which it will receive up to NIS 150,000,000, related to investments in fixed assets entitled for grant. This resolves the open discussions with regard thereto held during the past years between Tower and the Investment Center. The Investment Center Committee approval was followed by an official approval received in February 2011 from the Israeli Investment Center ("ktav ishur") according to which it may receive up to NIS 150 million during the years 2011 through 2014, related to investments in fixed assets entitled for grants. Such up to NIS 150 receipt is pending a successful audit by the Investment Center of the eligibility of the Cap-Ex investments reported by us, which audit is expected to commence by the investment Center during the second quarter of 2011. As of the date hereof, we cannot estimate when and what portion we will receive of the approved grants.

For information in regards to previous grants programs, see Note 6C to the 2010 annual Consolidated Financial Statements.

Other Recent Financing Transactions

Standby Equity Purchase Agreement

In August 2009, Tower entered into a definitive agreement with YA Global Master SPV Ltd. ("Yorkville"), according to which Yorkville committed to invest in Tower, upon Tower's request, up to $25 million by way of a stand-by equity-line, in consideration for ordinary shares of Tower to be issued at a 3% discount on the market price of the ordinary shares as determined in accordance with the agreement. This agreement has been amended several times (with the last amendment in November 2010) to increase the maximum amount which Yorkville is committed to invest at Tower's request, to a current aggregate of $95 million and to reduce the discount on market price at which the shares are issued to 2%. During 2010, Yorkville invested in Tower an aggregate total of approximately $55 million for the issuance of approximately 40 million ordinary shares. As of March 31, 2011 $18 million remained available for drawdown by Tower. The agreement expires in March 2012.

Investments made by Yorkville are required to be made such that Yorkville would not hold more than 4.99% of Tower's ordinary shares during the period of said agreement.

No warrants or any debt or derivative instruments were issued by Tower under this agreement.

Universal Registration Statement on Form F-3

In September 2010, Tower filed a shelf registration statement on Form F-3 with the U.S. Securities and Exchange Commission, registering the possible offer and sale from time to time of up to $50 million of securities which Tower may elect to so offer and sell during the three years following the effective date of the registration statement. The registration form was declared effective in September 2010. As of March 31, 2011, approximately $33 million was available under shelf registration statement for future utilization.

Tower Israeli Shelf

In September 2010, Tower filed a shelf registration statement in Israel with the Israeli Securities Authority, registering the possible offer and sale from time to time of ordinary shares, debentures, convertible debentures, commercial paper, warrants to purchase shares, or warrants to purchase debentures. Securities sold pursuant to the shelf registration may only be sold in Israel and not to a person in the United States or to U.S. persons as defined in Regulation S. The shelf was declared effective in September 2010.

Tower Debentures

On the basis of the Israeli Shelf, and pursuant to a prospectus supplement filed in Israel in October 2010, Tower raised an aggregate principal amount of approximately $100 million through the issuance of long-term debentures (“Series F Debentures”), due in two equal installments in December 2015 and December 2016. The Series F Debentures are fully linked to the US dollar, carry an interest rate of 7.8 percent per annum, and will be convertible into Tower's ordinary shares during the period commencing in September 2012 and ending in December 2016, with a conversion price that shall be equal to 120% of the average trading price of Tower’s ordinary shares on the Tel-Aviv Stock Exchange during the 15 trading days before September 18, 2012, provided that in no event will the price be more than NIS 6.5 (subject to certain adjustments), and not less than NIS 1.0. The amounts, although denominated in NIS are fully linked to the US dollar, including exercise prices discussed above.

For more information regarding these debentures see Note 12 to the 2010 annual Consolidated Financial Statements.

Jazz Loan Facility

On September 19, 2008, Jazz Technologies entered into a second amended and restated loan and security agreement, as guarantor of its subsidiary Jazz Semiconductor Inc., with Wachovia Capital Markets, LLC, as lead arranger, bookrunner and syndication agent, and Wachovia Capital Finance Corporation (Western), as administrative agent (“Wachovia”), and Jazz Semiconductor, Inc. and Newport Fab, LLC, as borrowers (the “Loan Agreement”), with respect to a three-year secured asset-based revolving credit facility for the total amount of $55 million. Jazz’s borrowing availability varies according to the levels of the borrowers’ eligible accounts receivable, eligible equipment and other terms and conditions described in the loan agreement. In December 2008, Wells Fargo acquired Wachovia Corporation, its businesses and obligations and therefore now administers the Loan Agreement as administrative agent.

In June 2010, Jazz entered into an amendment to the Loan Agreement, pursuant to which, the maturity date of the revolving credit facility was extended to September 2014, with available credit under the facility of up to $45 million.