TOWER SEMICONDUCTOR LTD
Form 20-F
June 25, 2007

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, 2006 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, ISRAEL 23105
(Address of principal executive offices)

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: 100,752,767 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 [_] 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 [_] 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 [_]

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 financial statement item the registrant has elected to follow.

Item 17 [_] Item 18 [X]

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes [_] No [X]

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 of 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".

We have prepared our consolidated financial statements in United States dollars and in accordance with accounting principles generally accepted in Israel ("Israeli GAAP"). Israeli GAAP varies in certain significant respects from accounting principles generally accepted in the United States of America ("US GAAP"). The effect of the application of the latter on the financial position and results of operations as of the dates and for the years presented herein is summarized in Note 19 to our consolidated financial statements included herein. All references herein to "dollars" or "$" are to United States dollars, and all references to "Shekels" or "NIS" are to New Israeli Shekels.

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 mix for such period. Unless otherwise specifically stated, all references herein to "wafers" in the context

of capacity in Fab 1 are to 150-mm wafers and in Fab 2 are to 200-mm wafers.

MICROFLASH(R) is a registered trademark of Tower and N-ROM(TM) is a trademark of Saifun Semiconductor Ltd.

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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, 2006, 2005 and 2004, and selected balance sheet data as of December 31, 2006 and 2005 from the audited financial statements in this annual report. Those financial statements were prepared in accordance with Israeli GAAP and audited by Brightman Almagor & 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, 2003 and 2002 and the selected balance sheet data as of December 31, 2004, 2003 and 2002 from our audited financial statements that are not included in this annual report, which were prepared in accordance with Israeli GAAP. The differences between statements of operations and balance sheet data in accordance with US GAAP and the respective data in accordance with Israeli GAAP are presented below. See also note 19 to our audited financial statements in this annual report. Our management believes that the financial statements contain all adjustments needed to present fairly the information included therein.

	YEAR ENDED DECEMBER 31,			
	2006	2005	2004	2003
	(IN THOUSANDS, EXCEPT PER SHARE DATA)			
STATEMENT OF OPERATIONS DATA IN ACCORDANCE WITH ISRAELI GAAP:				
Revenues	$ 187,438	$ 101,991	$ 126,055	$ 61,368

Cost of Sales	267,390	238,358	228,410	122,395
Gross loss	(79,952)	(136,367)	(102,355)	(61,027)
Research and development	14,984	16,029	17,053	20,709
Marketing, general and administrative	24,512	17,418	21,297	22,615
Operating loss	(119,448)	(169,814)	(140,705)	(104,351)
Financing expense, net	(48,148)	(35,651)	(29,745)	(9,826)
Gain on debt restructuring	80,071	--	--	--
Other income (expense), net	597	2,383	32,682	(84)
Loss for the year	$ (86,928)	$(203,082)	$(137,768)	$(114,261)
Basic loss per ordinary share	$ (1.05)	$ (3.06)	$ (2.13)	$ (2.45)
OTHER FINANCIAL DATA:				
Depreciation and amortization	$ 154,794	$ 144,852	$ 121,067	$ 54,611

	YEAR ENDED DECEMB		
	2006	2005	2004
			(IN THOUSANDS)
SELECTED BALANCE SHEET DATA IN ACCORDANCE WITH ISRAELI GAAP:			
Cash and cash equivalents, including short-term interest-bearing deposits and designated cash	$ 40,940	$ 38,998	$ 81,457
Working capital	36,581	(6,028)	63,591
Total assets	699,718	678,686	847,508
Current maturities of long-term debt and other short-term debt	--	21,103	--
Current maturities of convertible debentures	6,632	6,453	--
Long-term debt from banks	356,947	497,000	497,000
Convertible debentures	62,175	44,851	26,651
Long-term liabilities in respect of customers' advances	46,042	59,621	64,428
Shareholders' equity (deficit)	132,990	(30,067)	167,980
Weighted average number of ordinary shares outstanding (*)	82,581	66,371	64,717
Number of shares issued and outstanding (*)	100,752	66,932	65,700

(*) Net of 1,300,000 treasury shares.

	AS OF DECEMBER 31		
	2006	2005	2004

(IN THOUSANDS)

RECONCILIATION TO US GAAP:			
TOTAL ASSETS			
According to Israel GAAP	$ 699,718	$ 678,686	$ 847,508
The effect of:			
Presentation of long-term liabilities in respect of employees	13,535	13,658	16,350
Hedging activities	(203)	(1,524)	(4,619)
Sale of convertible debentures	1,082	(196)	(196)
According to US GAAP	714,132	$ 690,624	$ 859,043
SHAREHOLDERS' EQUITY (DEFICIT)			
According to Israel GAAP	$ 132,990	$ (30,067)	$ 167,980
The effect of:			
Hedging activities	(203)	(1,524)	(7,025)
Facility Agreement	(75,483)	--	--
Proceeds on account of share capital	--	--	--
Issuance of warrants	3,088	--	--
Sale of convertible debentures	(20,876)	2,363	2,363
According to US GAAP	$ 39,516	$ (29,228)	$ 163,318

RISK FACTORS

This annual report and statements that we may make from time to time may contain forward-looking information. There can be no assurance that actual results will not differ materially from our expectations, statements or projections. Factors that could cause actual results to differ from our expectations, statements or projections include the risks and uncertainties relating to our business described below.

RISKS AFFECTING OUR BUSINESS

IF WE DO NOT HAVE SUFFICIENT FUNDS TO FULLY EQUIP FAB 2 AND/OR IF WE DO NOT COMPLETE THE EQUIPMENT INSTALLATION, TECHNOLOGY TRANSFER AND RAMP-UP OF PRODUCTION IN FAB 2, OUR BUSINESS WILL BE MATERIALLY ADVERSELY AFFECTED.

Fab 2 production capacity as of May 31, 2007 was approximately 21,000 wafers per month. In March 2006, our board of directors approved a plan to ramp-up Fab 2 production capacity to approximately 24,000 wafers per month which we are currently implementing. 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 40,000 wafers per month. 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 above 24,000 wafers per month is dependent on prevailing and forecasted market conditions and our ability to fund these increases. We have not commenced, and there can be no assurance when or if we will commence, the acquisition, installation, equipping and financing necessary in order for production at our Fab 2 facility to exceed 24,000 wafers per month. The ramp-up of Fab 2 is a substantial and complex project. If we cannot fund the

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 we may lose customers and may not attract new ones. In addition, if we do not execute the acquisition, installation and equipping necessary in order for production at our Fab 2 facility to exceed 24,000 wafers per month or otherwise cannot successfully complete the ramp-up of Fab 2, we will not fully utilize the substantial investment made in constructing Fab 2, which will adversely affect our financial results. In order to fully ramp-up Fab 2 from approximately 24,000 wafers per month, we currently estimate we would need to raise approximately up to $120 million, including the approximately $40 million raised in our June 2007 private placement (see Item 4 -"Recent Developments"). We will also need to continue to develop new process technologies in order to suit our customers' needs. In addition, we have 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 and add to its cost, which would have a material adverse effect on our business and results of operations.

IF THE INVESTMENT CENTER WILL NOT APPROVE OUR REQUEST FOR A NEW EXPANSION PROGRAM, WE WOULD BE REQUIRED TO SEEK ALTERNATIVE FINANCING SOURCES TO COMPLETE THE RAMP-UP OF FAB 2, WHICH MAY NOT BE AVAILABLE. OUR NOT COMPLETING INVESTMENTS IN THE AMOUNT OF $1.25 BILLION BY THE END OF 2005 MAY RESULT IN THE INVESTMENT CENTER REQUIRING US TO REPAY ALL OR A PORTION OF THE GRANTS ALREADY RECEIVED, AND IF WE ARE UNABLE TO REFUND SUCH GRANTS, WE MAY HAVE TO CEASE OUR OPERATIONS.

In connection with Fab 2, we received approval for grants and tax benefits from the Investment Center of the Israeli Ministry of Industry, Trade and Labor (Investment Center) under its Approved Enterprise Program. Under the terms of the approval, we were eligible to receive grants of 20% of up to $1.25 billion invested in Fab 2 plant and equipment, or an aggregate of up to $250 million. As of May 31, 2007, we received a cumulative amount of approximately $165 million in grants from the Investment Center in relation to Fab 2. Our eligibility to receive grants was with respect to investments in Fab 2 plant and equipment made by the end of 2005. Any failure by us to meet the conditions of our grants may result in the cancellation of all or a portion of our grants to be received and tax benefits and in the Investment Center requiring us to repay all or a portion of grants already received. We did not complete investments in the amount of $1.25 billion by the end of 2005, mainly since we reduced our rate of annual investments as a result of our decision to slow-down the ramp-up of our Fab 2 facility in order to align our capital investments with market conditions in the semiconductor industry. Israeli law limits the ability of the Investment Center to extend this time limitation, unless approved through an expansion plan. Under Israeli law, our not completing investments in an amount of $1.25 billion by the end of 2005 may permit the Investment Center to require us to repay all or a portion of grants already received. We have been holding discussions with the Investment Center to achieve satisfactory arrangements to approve a new expansion program to commence as of January 1, 2006. During the period from January 1, 2006 until December 31, 2006, we have invested approximately $150 million in Fab 2 plant and equipment. In 2005, at the Investment Center's request, we submitted a revised business plan to the Investment Center for the period commencing January 1, 2006. Currently, we cannot estimate when we will receive a formal response to our request for a new expansion program to commence as of January 1, 2006 or if the Investment Center will approve our request. If the Investment Center will not approve our request for a new expansion program, we would be required to obtain alternative financing sources to further ramp-up

Fab 2 capacity from approximately 24,000 wafers per month, which may not be available. While there can be no assurance that we will obtain the Investment Center's approval for the new expansion program, we believe that it is improbable that the Investment Center would demand that we repay all or a portion of grants already received due to our not completing investments in an amount of $1.25 billion by the end of 2005. If we would have to repay the Investment Center all or a portion of grants already received, we would need to seek financing sources to refund the grants we received and if we do not succeed in finding such financing sources, we may have to cease our operations.

IF OUR FUTURE OPERATIONS DO NOT INCREASE OR IF WE FAIL TO RAISE ADDITIONAL FUNDING, WE MAY BE UNABLE TO REPAY OUR DEBT ON A TIMELY BASIS.

There is no assurance that our future operations will increase or that we will succeed in raising additional funding required for the completion of the ramp up of Fab 2 and the repayment of our short-term and long-term debt, which consists mainly of bank debt, trade accounts payable and convertible debentures. As a result, our ramp-up of Fab 2 may be delayed and we may be unable to repay on time, or repay at all our short-term and long-term debt, which may significantly harm our financial results or cause us to cease our operations. In accordance with our amended facility agreement with Bank Hapoalim B.M. and Bank Leumi Le-Israel B.M., our banks, we are required to repay principal in the amount of approximately $369 million in 12 quarterly installments between September 2009 and June 2012. In the event that we will not be in compliance with the repayment schedule set forth in our amended facility agreement and we are unsuccessful in negotiating a revised repayment schedule or our banks do not waive our non-compliance, pursuant to the terms of our amended facility agreement, our banks may require us to immediately repay all loans made by them to us, plus penalties, and they would be entitled to exercise the remedies available to them under our credit amended facility, including enforcement of their lien against all our assets. This would have a material adverse effect on our company. In addition, we cannot assure you that in the event we have liquidity problems we will be successful at negotiating price reductions and arrangements to slow down or postpone payments to our suppliers and service providers, or negotiating revised repayment schedules of our other debt, including our outstanding debentures.

THE CYCLICAL NATURE OF THE SEMICONDUCTOR INDUSTRY AND THE RESULTING PERIODIC OVERCAPACITY HAVE ADVERSELY AFFECTED OUR BUSINESS IN THE PAST, RESULTING IN A HISTORY OF LOSSES; 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 pressures characteristic of a prolonged downturn in the semiconductor market may not allow us to operate at a profit, even at full utilization, and could seriously harm our financial results and business.

WE HAVE A HISTORY OF OPERATING LOSSES AND EXPECT TO OPERATE AT A LOSS FOR THE FORESEEABLE FUTURE; OUR FACILITIES MUST OPERATE AT HIGH UTILIZATION RATES FOR US TO REDUCE OUR LOSSES.

We have operated at a loss for the last number of years. Because fixed costs represent a substantial portion of the operating costs of semiconductor

manufacturing operations, we must operate our facilities at high utilization rates for us to reduce our losses. We began construction of Fab 2 in 2001 and Fab 2 operations began in 2003. Our losses since 2003 are due primarily to significant depreciation and amortization expenses related mainly to Fab 2, as well as financing and operating expenses that have not yet been offset by a sufficient increase in the level of our sales. If we do not succeed in operating our facilities at high utilization rates, we expect to continue to operate at a loss for the foreseeable future, which may adversely affect our business and company.

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, failure of a key customer to pay accounts receivables in a timely manner or the financial condition of our customers;
- The occurrence of accounts receivables write-offs;
- The rescheduling or cancellation of large orders or 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;
- Environmental events or industrial accidents such as fires or explosions;
- Our susceptibility to intellectual property rights disputes;
- Our ability to continue with existing and to enter into new partnerships and technology and supply alliances on mutually beneficial terms;

- Actual capital expenditures exceeding planned capital expenditures;
- Interest and currency rate fluctuations that may not be adequately hedged;
- Technological changes and short product life cycles;
- Timing for designing and the qualification of new products; and
- New 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, you 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.

IF WE WILL NOT SUCCESSFULLY REGISTER THE SECURITIES WE ISSUED IN OUR JUNE 2007 PRIVATE PLACEMENT FOR TRADE ON THE TEL AVIV STOCK EXCHANGE, WE MAY NOT HAVE ADEQUATE LIQUIDITY TO MEET OUR SHORT-TERM ACTIVITIES AND LIABILITIES, UNLESS WE RAISE ALTERNATIVE FUNDS.

Under the terms of our June 2007 Private Placement to Israeli investors (see Item 4. Information on the Company -A. History and Development of the Company - Recent Developments) we may be required to redeem a portion or all of the securities if a prospectus allowing the face trade of such securities is not declared effective within 90 days of the Offering. In such event, we may not have adequate liquidity to meet our short-term activities and liabilities, unless we raise alternative funds, which may include grants from the Investment Center, sales of our equity and/or debt securities, wafer prepayments from our customers or increased cash flow from operations.

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. We cannot assure you 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 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.

OUR SALES CYCLES MAY BE LONG AND, AS A RESULT, ORDERS RECEIVED MAY NOT MEET OUR EXPECTATIONS THAT MAY ADVERSELY AFFECT OUR OPERATING RESULTS.

Our sales cycles, which measure the time between our first contact with a customer and the first shipment of product orders to 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.

We are ramping-up Fab 2 based on our expectations of customer demand and our financial resources. In order for demand for our wafer fabrication services to increase, the markets for the end products using 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.

During the three months ended March 31, 2007, approximately 61% of our business was generated by five significant customers that contributed 33%, 11%, 7%, 5% and 5% of our revenue, respectively. We expect to continue to receive a significant portion of our revenue from a limited number of customers for the foreseeable future. Loss or cancellation of business from, or decreases in, the sales volume or sales prices to our significant 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 sell in a short period of time, resulting in lower utilization of our facilities. We may have to reduce prices in order to try to sell the excess capacity. In addition to the revenue loss that could result from unused capacity or lower sales prices, we might have difficulty adjusting our costs to reflect the lower revenue in a timely manner, which could harm our financial results.

WE DEPEND ON A RELATIVELY SMALL NUMBER OF PRODUCTS FOR A SIGNIFICANT PORTION OF OUR REVENUES.

From time to time, a significant portion of our revenue is generated from a small number of very high volume products that are shipped to volatile consumer-oriented markets. The volume of orders of such products may adversely change or demand for such products may be abruptly discontinued. We expect that for the foreseeable future we will continue to be dependent upon a relatively limited number of products for a significant portion of our revenue due to the nature of our business. We cannot assure you that revenue generated from these products, individually or in the aggregate, will reach or exceed historical levels in any future period. A decrease in the price of, or demand for, any of these products could negatively impact our financial results.

IF WE DO NOT RECEIVE ORDERS FROM OUR WAFER PARTNERS, WE MAY HAVE EXCESS CAPACITY.

We have committed a portion of our Fab 2 capacity for future orders. During the ramp-up of Fab 2, our capacity commitments to our wafer partners, which are SanDisk Corporation, Alliance Semiconductor Corporation, Macronix International

Co. Ltd. and Quicklogic Corporation, are limited to approximately 50% of our Fab 2 capacity. Furthermore, we have committed to reserve for SanDisk volume quantities of 0.13 micron wafers during 2007 and 2008 and have granted SanDisk a right of first refusal on a portion of our expected 0.13 micron manufacturing capacity in 2009. Parties to whom we have committed capacity are generally not obligated to utilize or pay for all or any portion of their allocated capacity, and generally provide and confirm their orders to us less than one month before the production start date. If these parties do not place orders with us, and if we are unable to fill such unutilized capacity, our financial results may be adversely affected.

IF WE DO NOT MAINTAIN AND DEVELOP OUR TECHNOLOGY PROCESSES AND SERVICES, WE WILL LOSE CUSTOMERS AND MAY NOT BE ABLE 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.

In order to maintain our current customer base and attract new customers, we must continue to advance our manufacturing process technologies. We are developing and introducing to production specialized process technologies. Our ability to achieve and maintain profitable operations depends on the successful development and introduction to production of these processes, which we may not achieve in a timely manner or at all.

IF WE DO NOT COMPETE EFFECTIVELY, WE WILL LOSE BUSINESS TO OUR COMPETITORS.

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

WE HAVE A LARGE AMOUNT OF DEBT WHICH COULD HAVE SIGNIFICANT NEGATIVE CONSEQUENCES.

We have a large amount of long-term debt, which could have significant negative consequences. As of May 31, 3007, we had approximately $369 million of bank debt and approximately $95 million of convertible debt. Our current and future indebtedness could have significant negative consequences, including:

- requiring the dedication of a substantial portion of our expected cash flow from operations to service our indebtedness;

- increasing our vulnerability to general 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 to less leveraged competitors and competitors that have better access to capital resources; and/or
- affecting our ability to make interest payments and other required debt service on our indebtedness.

IF WE FAIL TO SATISFY THE COVENANTS SET FORTH IN OUR AMENDED CREDIT FACILITY, OUR BANKS WILL BE ABLE TO CALL OUR LOANS.

Our credit facility, under which we are required to repay principal in the amount of approximately $369 million, requires that we comply with certain financial ratios and covenants. Should we fail to comply with our revised ratios and covenants, and our banks do not waive our non-compliance, pursuant to the terms of the credit facility agreement, our banks may require us to immediately repay all loans made by them to us, plus penalties, and they would be entitled to exercise the remedies available to them under the credit facility, including enforcement of their lien against all our assets. This would have a material adverse effect on our company.

ISRAELI BANKING LAWS MAY IMPOSE RESTRICTIONS ON THE TOTAL DEBT THAT WE MAY BORROW FROM OUR BANKS.

Pursuant to a directive published by the Israel Supervisor of Banks, effective March 31, 2004, we may be deemed part of a group of borrowers comprised of the Ofer Brothers Group, 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 our banks exceed these limitations, they may limit our ability to borrow other money in the future and may require us to return some or all of our outstanding borrowings (which were approximately $369 million), which may have a material adverse effect on our business, financial

condition and results of operations.

IF WE EXPERIENCE DIFFICULTY IN ACHIEVING ACCEPTABLE DEVICE YIELDS, PRODUCT PERFORMANCE AND DELIVERY TIMES AS A RESULT OF MANUFACTURING PROBLEMS, OUR BUSINESS WILL BE ADVERSELY AFFECTED.

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 have from time to time experienced production difficulties that have caused delivery delays or returns and lower than expected device yields. We may also 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 complete the ramp-up of our Fab 2 facility and to maintain the quality of production in our facilities, we must procure new 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 have a material adverse effect on our business and financial condition.

OUR EXPOSURE TO INFLATION AND 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 our operations, which is denominated in NIS, 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. Outstanding principal and interest on some of our debentures is linked to the Israeli consumer price index (CPI) and therefore, our dollar costs will increase if inflation in Israel exceeds the devaluation of the NIS against the US dollar, or if the timing of such devaluation lags behind inflation in Israel. In addition, the devaluation of the US dollar against the NIS raises our US dollar costs of operation, which is denominated in NIS.

Our borrowings under our Fab 2 credit facility provide for interest based on a floating LIBOR rate, thereby exposing us to interest rate fluctuations. Furthermore, if our banks incur increased costs in financing our Fab 2 credit facility due to changes in law or the unavailability of foreign currency, our banks may exercise their right to increase the interest rate on our Fab 2 credit facility as provided for in the credit facility agreement.

We regularly 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 and exchange rate fluctuations and inflation, which may increase the cost of our 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 right vendors go out of business, liquidate, merge with, or are 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. There are no lawsuits currently pending against us regarding the infringement of patents or intellectual property rights of others nor are we currently a plaintiff in any such action against other parties. However, we have been subject to such claims in the past, all of 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;

- fighting 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 developments 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 applying particular technologies, which could reduce our opportunities to generate revenues.

As of March 31, 2007, we held 61 patents worldwide. 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.

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 relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in our production processes. 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 fires. The risk of fire associated with these materials cannot be completely eliminated. We maintain insurance policies to reduce losses 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 would reduce our manufacturing capacity and revenues.

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 MAY BE REQUIRED TO REPAY GRANTS TO THE INVESTMENT CENTER THAT WE RECEIVED IN CONNECTION WITH FAB 1.

We received grants and tax benefits for Fab 1 under the government of Israel Approved Enterprise program. As of December 31, 2001, we completed our investments under our Fab 1 program and are no longer entitled to any further investment grants for future capital investments in Fab 1. We have agreed with the Investment Center that if we do not achieve Fab 1 revenues of $90 million for 2003 and $100 million for 2004 and maintain at Fab 1 at least 600 employees for 2003 and 625 employees for 2004, subject to prevailing market conditions, we will, if demanded by the Investment Center, be required to repay the Investment Center up to approximately $2.5 million. Since our actual level of Fab 1 revenues and employees for 2003 and 2004 were not in compliance with the above mentioned levels, we may be required to repay the Investment Center up to approximately $2.5 million.

WE ARE SUBJECT TO RISKS RELATED TO OUR INTERNATIONAL OPERATIONS.

We have made substantial sales to 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 sales;
- the need to comply with foreign government regulation;
- general geopolitical risks such as political and economic instability, potential hostilities and changes in diplomatic and trade relationships;
- natural disasters affecting the countries in which we conduct our business;
- reduced sales to our customers or interruption in our manufacturing processes in Asia Pacific that may arise from regional issues in Asia;
- imposition of regulatory requirements, tariffs, import and export restrictions and other barriers and restrictions;
- adverse tax rules and regulations;

- weak protection of our intellectual property rights; and
- delays in product shipments due to local customs restrictions.

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 and we cannot 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. We may need to review employee compensation competitiveness with the purpose of retaining our existing officers and employees and attracting and retaining additional personnel, including granting large packages of options to purchase our ordinary shares.

RISKS RELATED TO OUR SECURITIES

OUR 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 our ordinary shares, regardless of our actual operating performance.

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

ISSUANCE OF ADDITIONAL SHARES PURSUANT TO OUR FAB 2 FINANCING PLANS AND ARRANGEMENTS AND THE TERMS OF OUTSTANDING SECURITIES WHICH ARE EXERCISABLE OR CONVERTIBLE INTO SHARES MAY DILUTE THE INTEREST OF OUR SHAREHOLDERS. WE MAY ALSO ISSUE IN THE FUTURE ADDITIONAL SHARES AND/OR SECURITIES WHICH ARE EXERCISABLE OR CONVERTIBLE INTO SHARES.

As of May 31, 2007 we had approximately 122.2 million ordinary shares outstanding and have outstanding securities convertible or exercisable into up to approximately 248.7 million ordinary shares including: (i) up to 26.6 million ordinary shares issueable upon the conversion of our 2005 outstanding convertible debentures held by some of our major shareholders and others at a conversion rate of $1.10; (ii) 8.3 million warrants issued to our banks with an exercise price of $1.21; (iii) 24.3 million warrants with an exercise price of approximately $1.70; (iv) up to 24.2 million ordinary shares issueable upon the conversion of our 2006 outstanding convertible debentures at a conversion rate of approximately $2.00; (v) 9.4 million warrants with an exercise price of $2.04; (vi) 5.2 million warrants with an exercise price of approximately $$2.3; and (vii) 30.7 million employee and director options with a weighted average exercise price of $1.86 (including options granted to our CEO). Additionally, in September 2006, we issued equity equivalent capital notes to our banks and to Israel Corp., which are convertible for no additional consideration, into approximately 52 million and 65.8 million of our ordinary shares, respectively.

We have also entered into a number of agreements which may result in our issuing large numbers of shares, particularly if we complete the transactions contemplated by these agreements at a time when our share price is low. For example, we have agreed that our three major wafer partners may elect to convert, on a quarterly basis, for purchase orders placed through 2006, wafer credits we have issued to them into our ordinary shares rather than use these credits to reduce their cash payments for wafers manufactured in Fab 2, based on the average trading price of our ordinary shares during the 15 consecutive trading days preceding the last day of the relevant quarter. As of May 31, 2007, we had issued approximately 6 million of our ordinary shares to SanDisk Corporation and approximately 2.6 million ordinary shares to Alliance Semiconductor upon conversion of approximately $14 million of wafer credits. We expect that up to approximately $2.7 million of these credits may be further converted into our ordinary shares. Following the reduction of the interest rate applicable to the quarterly actual interest payments on our outstanding loans to our banks following the closing of the September 2006 amendment to our facility agreement, we have agreed to issue shares or convertible securities to our banks in January 2011.

Our audit committee and board of directors and shareholders approved the grant of options to our CEO, such that during the 24 month period ending in May 2008, the CEO will hold options to purchase shares that represent 4% of our shares on a fully diluted basis. Our board of directors further approved the allocation of additional options to be made available for grant to our employees if the total number of employee options, including the options to our CEO, during a 24 month period ending in May 2008 will represent less than 8% of our shares on a fully diluted basis.

If we obtain Investment Center approval for an expansion plan (see Item 3. Key Information - Risk Factors - Risk Affecting Our Business - "If the Investment Center will not approve our request for a new expansion program,..."), we will still need to raise considerable additional funds from other sources to finance the ramp-up of Fab 2 to exceed capacity of 24,000 wafers per month, should we decide to further increase Fab 2's capacity, for which we currently estimate we would need to raise approximately up to $120 million to fully ramp-up Fab 2, including the approximately $40 million raised in our June 2007 private placement.

In connection with these financings, we may issue shares or securities convertible into shares, which may materially dilute the holdings of our current shareholders.

MARKET SALES OF LARGE AMOUNTS OF OUR SHARES ELIGIBLE FOR FUTURE SALE MAY LOWER THE PRICE OF OUR ORDINARY SHARES.

Of our approximately 122.2 million outstanding ordinary shares as of May 31, 2007, approximately 59.2 million are freely tradable and held by non-affiliates under US securities laws. In addition, certain of our affiliates (Israel Corp., SanDisk Corporation, Alliance Semiconductor, and Macronix International) hold approximately 44.2 million of our shares, of which (i) approximately 3.3 million are registered for resale and are therefore freely tradable under US securities laws, (ii) approximately 37.1 million are currently eligible for sale subject to the time, volume and manner of sale limitations of Rule 144 promulgated under the US Securities Act of 1933, as amended, and (iii) approximately 3.8 million shares held by SanDisk Corporation, will become eligible for sale subject to the volume and manner of sale limitations of Rule 144 during 2007and 2008. Shares held by these affiliates are subject to the share transfer restrictions set forth in the shareholders agreement to which they are a party and which remain in effect through January 2008. As of May 31, 2007 up to approximately 26.6 million additional shares issuable upon the conversion of our 2005 convertible debentures are held by non-affiliates or are registered for resale and are therefore freely tradable under US securities

laws. In addition, approximately (i) 9.2 million shares issuable upon the exercise of warrants we granted to our banks and (ii) approximately 18.8 million shares issued in our March 2007 private placement, as well as approximately 28.2 million shares issuable upon exercise of warrants issued in such transaction, are registered for resale and are therefore freely tradable under US securities laws. The additional up to: (i) approximately 29.7 million shares issuable upon the conversion and/or exercise of the securities sold in our June 2006 public offering in Israel and (ii) approximately 5.2 million shares issuable upon exercise of warrants sold in private placements completed in November 2006 are freely tradeable in normal trading transactions in the United States. Furthermore, we have filed a registration statement covering the resale of an additional up to approximately 117.8 million shares issuable upon the conversion of equity equivalent convertible capital notes issued to our banks and Israel Corp. and if declared effective, such shares would be freely tradeable under US securities laws. The sales of large amounts of our ordinary shares (or the potential for those sales even if they do not actually occur) may depress the market price of our ordinary shares. This could also impair our ability to raise capital through the sale of our equity securities.

OUR PRINCIPAL SHAREHOLDERS COLLECTIVELY OWN A CONTROLLING INTEREST IN US AND WILL BE ABLE TO EXERCISE THEIR VOTING RIGHTS IN WAYS WHICH MAY BE ADVERSE TO THE INTERESTS OF OUR OTHER SHAREHOLDERS.

As of, May 31, 2007 our major wafer partners and Israel Corp. collectively owned approximately 36% of our outstanding shares. In the event Israel Corp. would exercise its equity convertible capital notes, our major wafer partners and Israel Corp. would collectively own approximately 58.5% % of our outstanding shares. Under our articles of association, two shareholders holding together 33% of our outstanding shares constitute a quorum for conducting a shareholders meeting. Our wafer partners and Israel Corp. could constitute a quorum for purposes of conducting a shareholders meeting. While we have always solicited proxies from our shareholders prior to our shareholders meetings, we would have a sufficient quorum with two large shareholders even if none of our other shareholders were to participate in our shareholders meetings. If only two large shareholders, owning collectively at least 33% of our shares, were to participate in one of our shareholders meetings, these shareholders would determine the outcome of our shareholders meeting without the benefit of the participation of our other shareholders. In addition, even if our other shareholders were to participate in our shareholders meetings in person or by proxy, our wafer partners and Israel Corp. collectively control our company and may exercise this control in a manner adverse to the interests of our other shareholders.

THE PAYMENT OF THE REDEMPTION AMOUNT ON ACCOUNT OF OUR OUTSTANDING DEBENTURES IS SUBORDINATED TO OUR INDEBTEDNESS TO OUR BANKS AND OBLIGATIONS TO SECURED CREDITORS.

The payment of the redemption amount on account of our outstanding debentures is subordinated to the prior payment of all amounts payable by us to our banks under our credit facility agreement with them, to any obligations to the Investment Center of the Israeli Ministry of Industry, Trade and Labor related to approximately $165 million in grants received as of May 31, 2007 under the Investment Center's "Approved Enterprise" program in relation to Fab 2, to a first ranking charge in favor of Siliconix Technology C.V., on approximately $20 million of equipment purchased in connection with the performance of our obligations under our agreement with Siliconix and to a first

ranking charge in favor of SanDisk Corporation, on approximately $10 million of equipment purchased in connection with the performance of our obligations under our agreement with SanDisk Corporation. As a result, upon any distribution to our creditors 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 our outstanding debentures. In any of these circumstances, we may not have sufficient assets remaining to pay amounts due on any or all of our debentures then outstanding. In addition, we are not permitted under the terms of our facility agreement to make a payment on account of the debentures if on the date of such payment an "Event of Default" exists under our credit facility agreement.

WE MAY INCUR ADDITIONAL INDEBTEDNESS.

Although we are limited by the covenants in our credit facility agreement with our banks, we could enter into certain transactions that would increase the amount of our outstanding indebtedness. If new indebtedness is added to our current indebtedness levels, the related risks that we now face could intensify.

RISKS RELATED TO OUR OPERATIONS IN ISRAEL

INSTABILITY IN ISRAEL MAY HARM OUR BUSINESS.

All of our manufacturing facilities and our corporate and some of our 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, as well as incidents of civil unrest. 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 civil unrest and 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 could make it more difficult for us to raise capital. Furthermore, our manufacturing facilities are located exclusively in Israel, which has been experiencing civil unrest, terrorist activity and military action. We could experience serious disruption of our manufacturing 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 occur, 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 PERSONNEL TO PERFORM MILITARY SERVICE.

In the event of severe unrest or other conflict, 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 military reservists, and it is possible that there will be additional call-ups in the future. A large part of male Israeli citizens, including our employees, are subject to compulsory military reserve service through middle age. Our operations 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.

OUR OPERATIONS MAY BE AFFECTED BY NEGATIVE ECONOMIC CONDITIONS IN ISRAEL.

Israel has experienced periods of recession in economic activity, resulting in low growth rates and growing unemployment. Our operations could be adversely affected if the economic conditions in Israel deteriorate. In addition, Israel has experienced several general strikes and other work stoppages, affecting banks, government offices, airports and ports. These strikes have had an adverse effect on the Israeli economy and on businesses, including our ability to deliver products to our customers or to receive raw materials from our suppliers in a timely manner. From time to time, the Israeli trade unions threaten strikes or work-stoppages, which may, if carried out, have a material adverse effect on the Israeli economy and our business.

IF THE EXEMPTION ALLOWING US TO OPERATE OUR MANUFACTURING FACILITIES SEVEN DAYS A WEEK IS NOT RENEWED, OUR BUSINESS WILL BE ADVERSELY AFFECTED.

We operate our 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, 2007. In addition, a significant increase in the number of employees permitted to work under this exemption will be needed as we ramp-up production at Fab 2. If the exemption is not renewed and we are forced to close any or all of the 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, and any gain recognized by a US Holder on a disposition or 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 addition, under the applicable statutory and regulatory provisions, it is unclear whether we would be permitted to use a gross loss from sales (sales less cost of goods sold) to offset our passive income in the calculation of gross income. 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 AND DIRECTORS AND SOME OF THE EXPERTS NAMED IN THIS PROSPECTUS OR TO ASSERT US SECURITIES LAW CLAIMS IN ISRAEL.

We are incorporated in Israel. Most of our executive officers and directors and our Israeli accountants and attorneys are nonresidents of the United States, and a majority of our 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 us or any of these persons, in US or Israeli courts based on the civil liability provisions of the US Federal securities laws. 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 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. 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, embedded flash, mixed-signal, radio frequency CMOS (RFCMOS), radio frequency identification (RFID) technologies and power management. To better serve our customers, we have developed and are continuously expanding our technology offerings for use in these fields. Through our expertise and experience gained over fourteen years of operations, we

differentiate ourselves by creating a high level of value for our clients through innovative technological processes, design support and services, competitive manufacturing indices, such as cycle times and yields, and dedicated customer service.

Our company was founded in 1993, when we acquired 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. Production capacity in Fab 1 as of May 31, 2007 was approximately 16,000 wafers per month depending on process technology and product mix.

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 licensed from Freescale and Toshiba and other technologies that we developed and will develop independently or with development partners. We are currently implementing our plan to ramp-up the capacity of Fab 2 to 24,000 wafer starts per month. Production capacity of Fab 2 as of May 31, 2007 was approximately 21,000 wafers per month. 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 up to approximately 40,000 wafers per month. We have not yet made a decision as to the timing of the commencement of any further ramp-up of Fab 2 capacity beyond 24,000 wafer starts per month. The timing of that decision and its implementation will depend upon several factors, including, funding, and cost availability of equipment and market conditions.

Our capital expenditures, net of Investment Center grants, for 2006, 2005 and 2004 of approximately $147 million, $24 million and $142 million, respectively, were made principally in connection with the construction of, and purchase of equipment and technology for, Fab 2.

Our legal and commercial name is Tower Semiconductor Ltd. We were incorporated under the laws of Israel. Our manufacturing facilities and executive offices are located in the Ramat Gavriel Industrial Park, Post Office Box 619, Migdal Haemek, 23105 Israel, and our telephone number is 972-4-650-6611. Our worldwide web site is located at http://www.towersemi.com. Information on our web site is not incorporated by reference in this annual report.

RECENT DEVELOPMENTS

In June 2007, in a private placement with Israeli investors, we accepted orders for 342 units, resulting in gross proceeds of approximately 167 million NIS ($40 million). Each unit was comprised of: (i) long-term non-convertible bonds, repayable in six equal annual installments between the dates of December 2011 and December 2016, with a face amount of NIS 250,000 (approximately $59,700) and carrying an annual interest rate of 8 percent; (ii) long-term convertible bonds repayable in January 2013 with a 17.2 NIS conversion price (approximately $4.11) and with a face amount of NIS 262,500 (approximately

$62,700), carrying an annual interest rate of 8 percent, and (iii) 5,800 warrants, each exercisable for four years from the date the below mentioned prospectus is published, for one ordinary share at a price of $2.04 (approximately 8.54 NIS). Principal and interest on the bonds, including the convertible bonds, are linked to the Israeli consumer price index, or CPI, and were issued at 95.5% of par value. The conversion and exercise prices are subject to reduction in certain limited circumstances. Under Israeli securities laws, the securities are subject to a statutory lock-up. The Company has undertaken to file a prospectus with the Israel Securities Authority to allow for the unrestricted trade of the securities. The funds raised are being held in escrow and will be released to the Company if the prospectus is declared effective by the Israel Securities Authority within 90 days from the date of the offering. In the event the prospectus is not declared effective by the Israel Securities Authority, the holders of the bonds, including the convertible bonds, may elect to have the Company redeem the bonds. Under US securities laws, the securities sold are freely tradeable in normal trading transactions in the United States.

B. BUSINESS OVERVIEW

INDUSTRY OVERVIEW

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. The semiconductor industry is characterized by rapid changes in technology, frequently resulting in the obsolescence of recently introduced products. As performance has increased and size and cost have decreased, the use of semiconductors and the number of their applications have grown 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. This need has been met by the development of independent companies, known as foundries, which focus primarily on providing IC manufacturing services to semiconductor suppliers. Foundry services are now used by nearly every major semiconductor company 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, which require increasingly complex ICs. In addition to the increased complexity of designs, there has also been a dramatic increase in the number of applications for semiconductors. To compete successfully, semiconductor suppliers must also minimize the time it takes to bring a product to market. As a result, fabless companies and IDMs are focusing more on their core competencies--design and intellectual property--and outsourcing manufacturing to foundries.

The consumer sector is expanding worldwide with new applications and multi-functional devices, including those that incorporate CMOS image sensors, embedded flash and mixed-signal ICs. Increasingly, emerging applications, such as camera-equipped cell phones, digital still cameras and flat panel displays, are enabled by ICs manufactured using advanced process technologies.

The enormous costs associated with modern fabs, combined with the increasing demand for complex ICs, has created an expanding market for outsourced manufacturing offered by foundries. Foundries can cost-effectively supply the technologies involved in manufacturing 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, such as CMOS image sensors, embedded flash and mixed-signal technologies. 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.

These trends have led to the rapid growth in demand in recent years for advanced semiconductor manufacturing services provided by independent foundries.

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 and testing.

We provide wafer fabrication services and technologies 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 unique positions in large, high-growth specialized markets for CMOS image sensors, embedded flash memory, mixed signal and RF CMOS ICs. We serve as a sole source or alternative provider of foundry services.

We manufacture ICs using CMOS process technology. CMOS is currently the dominant semiconductor manufacturing process because it requires lower power than other technologies and allows dense placement of components onto a single IC. The low power consumption and high-density characteristics of the CMOS process allow the continued development of high performance ICs that are smaller and faster. For example in the end of 2006, Ikanos Communications, Inc. a leading developer and provider of Fiber Fast(TM) broadband solutions, chose us to manufacture its Vx160 high-performance DSL network processor. The product will be produced in 0.16-micron at our Fab 2. In 2007, we also began manufacturing additional Zoran Corporation ICs at Fab 2, using our cost-effective 0.16-micron geometry. We believe that our specialized process technology distinguishes our IC manufacturing services and attracts industry-leading customers.

We believe that we are a trusted, customer-oriented service provider that has built a solid reputation in the foundry industry over the last fourteen 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 for both our Fab 1 and Fab 2 facilities who seek to work with a proven provider of foundry services. Our emphasis on working closely with customers and accelerating the time-to-market of our customers' next-generation products is

also reflected in our corporate structure which comprises three distinct product line units: CMOS Image Sensors and embedded Non-Volatile Memory products (CIS/NVM); Radio Frequency (RF)/Mixed Signal; and CMOS. As a result, we have a high customer retention rate and an increase in new customers and new products for production.

We derived approximately 45% of our revenues for the year ended December 31, 2006 from our target specialized markets: CMOS image sensors, embedded flash, mixed-signal, RF and power ICs. We are highly experienced in these markets, being an early entrant and having developed unique proprietary technologies, primarily 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

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.

In addition, our innovative "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. Our 0.5, 0.35-micron and 0.18-micron CMOS image sensor processes are designed to permit the customer to create high-quality solutions and integrate a product's CMOS analog and logic circuitry together with the sensor pixel array all on one chip, thereby facilitating miniaturization, reducing power consumption and increasing performance.

We are currently actively involved in this mass market as well as the high-end sensor and applications specific markets, which include applications such as industrial machine vision, medical X-Ray and automotive sensors. While CMOS image sensors for advanced optical applications are an emerging technology, we believe that they are becoming the preferred technology to traditional charge coupled devices, or CCDs. CCDs have historically provided superior image quality; however, advances in semiconductor manufacturing processes and design techniques have led to significant improvements in CMOS image sensor performance and image quality. These advances have resulted in smaller size circuits and better power control, making it possible to design CMOS image sensors that provide high image quality at a significantly lower cost.

As early as 1997, 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. In 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.

CMOS image sensors manufactured by us deliver outstanding image quality for a broad spectrum of digital imaging applications.

During the last quarter of 2005 we commenced volume production of CMOS image sensors for the cellular phone camera market in 0.18 micron process and using a 3.6 micron pixel which we developed. For example, in November 2005, we began manufacturing 2.0 and 1.3-megapixel CMOS image sensors for Biomorphic Microsystems Corporation (Biomorphic) designed for cellular phone applications. These image sensors are produced in 0.18 micron process at Fab2, utilizing our pixel IP and our optically-optimized-multilayer metallization, which achieves dramatically better optical sensitivity by reducing stack height from silicon to micro-lens. In 2006, we commenced volume production with our developed 2.8 micron pixel and in parallel we developed a 2.2 micron pixel which serves as the foundation for products with several of our customers ordered for 2007, and is being used in VGA, 1.3Mp, 2Mp and 3Mp and which we expect to be used in the future for 5Mp sensors for both the cellular phone and PC camera commodity market, and the low end DSC market.

During 2006, we ramped to production products with 2.8 micron , 3.2 micron and 3.6 micron pixels, all developed by us and supplied to our customers as pixel IP In the end of 2006, we began prototyping of two image sensors for SuperPix, a leading Chinese products company, in Fab 2 in 0.18 micron technology. The products will be used in cellular phone and smart phone cameras. Our Advanced Photo Diode (APD) technology used in these CMOS image sensors enables improved optical and electrical performance of ultra-small pixels utilizing deep sub-micron process technologies, thus enabling the manufacturing of small, cost-effective camera module solutions.

We developed a new 2.2-micron pixel for which prototyping began in early 2007. In addition, in the beginning of 2007, we were selected by e2v as its supplier of choice for its CMOS image sensor devices. e2v's products target a broad range of industrial and medical applications. The CMOS sensors will be produced in Fab2, using the CIS 0.18 micron process and its advanced capabilities, including our patented stitching technology that was successfully developed for Fab 2 in 2006.

For the X-Ray market, we developed stitched technology in Fab2 on 0.18micron process and a variety of 20-micron pixels that are optimized for X-Ray applications. These pixels are used by our customers in X-Ray products prototypes.

The stitched technology that was developed for Fab 2 during 2006 provided us with the ability to manufacture large sensors (up to one die per wafer) on 8" wafers using state of the art, 0.18-micron CMOS Image Sensor technology. In 2007, we have several new orders from customers whose products based on this technology.

EMBEDDED FLASH

Flash memory is a constantly powered nonvolatile memory that can be erased and reprogrammed in units of memory called blocks. The IC of flash memory is organized so that a section of memory cells may be erased in a single action, or "flash". Applications for flash memory products range from most types of portable electronic equipment devices to high volume mass storage of data. Flash is particularly suitable for applications such as handheld devices, combining the need for portability, high density, ruggedness and lower power requirements.

Flash memory products are also well-suited for audio products such as digital answering machines and MP3 players, as well as other applications including networking devices, digital cameras, personal computer motherboards and portable memory devices.

Embedded flash is the combination of flash memory with other components, such as other memory, logic and analog, on a single IC to provide speed, functionality and form factor advantages and reduce system cost. Embedded flash memory products are used in communications, consumer, industrial, military and automotive applications. End products include networks, base stations, servers, microcontrollers, toys, set-top boxes, DVD players, cell phones and smart cards.

In 1997, we entered into a strategic investment and technology agreement with Saifun Semiconductors Ltd., pursuant to which we obtained approximately a 10% equity stake in Saifun. Together we brought to market a new non-volatile memory technology based on 0.5-micron, microFlash(TM)/NROM(TM). NROM technology enables the implementation of ultra high-density flash arrays using CMOS processes, and is particularly suitable for embedding flash arrays with standard CMOS logic, as well as for commodity memories. Our microFLASH technology, based on Saifun's patented NROM technology, provides greater memory cell density than other currently available flash architectures for given design rule generation, permitting an approximately four-fold reduction in the size of the memory cell for stand-alone memories and embedded applications in a given geometry.

In December 2004, we sold our entire equity stake in Saifun for approximately $39 million. This sale had no effect on our technology rights under our agreement with Saifun.

In September 2006, we signed a new agreement with Saifun extending our license of the Saifun NROM(R) technology for the manufacture of embedded flash and embedded EEPROM products. The MICROFLASH(R) embedded modules are manufactured on our 0.18 micron process in various densities and speeds. Under the terms of the new agreement, we may also offer NROM-based embedded flash modules on further advanced process generations.

The relative simplicity of our microFLASH manufacturing process offers cost advantages over competing flash technologies for high density memories. Using our 0.5-micron technology, we have introduced the first of our microFLASH processes into production with the manufacture of a 2 megabit stand-alone memory device and embedded multi-time programming modules, with a limited number of rewrite cycles. Our 0.18-micron embedded flash technology was mutually developed with a Japanese semiconductor manufacturer during 2004, with multiple flash modules ranging in sizes from 0.5 megabit to 8 megabit, and is currently in different stages of prototyping and production with a few customers.

MIXED SIGNAL, RF CMOS, AND RFID

Mixed-signal ICs are an essential part of any electronic system that interacts with the real world. Analog ICs monitor and manipulate real world signals such as sound, light, pressure, motion, temperature and electrical current and are used in a wide variety of electronic products such as PCs, cell phones, DVD players, automotive electronics and medical imaging equipment. Digital ICs perform arithmetic functions on data represented by a series of ones and zeroes, provide critical processing power and have enabled many of the computing and communication advances of recent years. Mixed-signal ICs combine analog and digital semiconductor functionality on a single IC to enable digital

systems to interface with the real world. As these digital systems proliferate, there is a growing need for analog functionality to enable them to interface with the real world. For 0.18-micron technology, we have developed design kits optimized for mixed-signal and RFCMOS design. These design kits contain a comprehensive characterization of a wide range of analog and RF devices to provide our customers with the ability to design mixed-signal and RF ICs for their specific needs.

For example, in 2006 we collaborated with Modiotek to successfully introduce a 32-polyphony sound generator into ULC (Ultra Low Cost) handset models, following manufacturing of over 10 million MAP S32i series products for the past two years. The MAP (Mobile Audio Platform) family consists of half a dozen different products, customized for the specific cellular phone models and applications which were built, using our Fab 2 0.18-micron mixed signal process technology.

In recent years, more and more designers opt to develop high frequency products based on RF CMOS technologies as opposed to exotic process technologies, such as SiGe or GaAs. The superior cost structure of CMOS technologies enables high volume, low cost production of such high frequency products. We use our mixed signal expertise to leverage and develop processes and provide services for customers utilizing CMOS technologies. We further enhanced our mixed signal 0.18-micron platform technology offering by developing RF CMOS product design kits. This allowed us to increase our customer base and obtain new products for production as well as develop special capabilities with RFID applications. For example, in February 2006, we began producing wireless LAN products for Atheros Communications.

RFID. In 2004, we started a joint development program with Alien Technology Corporation that targets the RFID tag market and utilizes a platform technology of mixed signal, RF and non volatile memory function. As of June 2006 we are the manufacturing supplier for Alien Technology's internally-designed Gen 2 RFID ICs. Currently certain of Alien's products are in production at Fab 2 and additional developments under the program are in process.

CONVERGENCE OF TECHNOLOGIES

In response to the growing demand for a single chip to offer a wide array of functions, we are leveraging a combination of some of the abovementioned technologies by developing a single chip with multiple functions. The successful development of this chip will allow us to provide additional value to our customers and obtain a unique market position by offering our customers a unique technology platform. We engage in projects merging CMOS, NVM and CIS for unique solutions to customers' needs, as well as in a project targeting RFID tags applications merging RF CMOS, mixed signal and NVM technologies onto a single chip.

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, Taiwan and Israel. 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 12-24 months or longer for new customers and

can be as short as 9-12 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 manufacturing;
- silicon prototyping;
- assembly and test;
- validation and qualification; and
- production.

The primary customers of our foundry services are fabless semiconductor companies and IDMs. A substantial 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, some of our shareholders and a number of Taiwanese companies who preferred our solution to the solutions that were offered locally. During the year ended December 31, 2006, we had seven significant customers who contributed 23%, 10%, 10%, 9%, 6%, 5% and 5% of our revenues, respectively. In 2005, we had five significant customers who contributed 22%, 14%, 8%, 7% and 5% of our revenues, respectively.

In addition to further developing our customer base, we have also made a concentrated effort to expand the geographical diversity of our sales. The percentage of our sales from customers located outside the United States was 40%, 36% and 31% in the years ended December 31, 2004, 2005 and 2006, respectively. We believe that a substantial portion of our sales will continue to come from customers located outside the United States. The following table sets forth the geographical distribution, by percentage, of our net sales for the periods indicated:

	YEAR ENDED DECEMBER 31,		
	2006	2005	2004
United States	69%	64%	60%
Israel	7%	7%	20%
Asia-Pacific (primarily Taiwan)	16%	20%(*)	11%(*)
Europe	8%	9%	9%
Total	100%	100%	100%

(*) Including payments made to us in connection with our May 2002 joint development agreement for 0.18-micron embedded MICROFLASH technology.

COMPETITION

The global semiconductor foundry industry is highly competitive. The major independent dedicated foundries include Taiwan Semiconductor Manufacturing Corporation, United Microelectronics, Chartered Semiconductor Manufacturing and Semiconductor Manufacturing International Corp.; emerging and existing Chinese, Korean, Malaysian and Taiwanese foundries, including DongBu, He Jien Technology, ASMC, MagnaChip, CSMC Grace, HHNEC, and Silterra; and other specialized foundries, such as AMI Semiconductor, Jazz Semiconductor and X-Fab. In addition, there are IDMs and end-product manufacturers 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 and manufacture of ICs. We believe that the principal elements of competition in the wafer foundry market are:

- technical competence;
- production quality;
- time-to-market;
- device and end-product price;
- available capacity;
- device yields;
- design and customer support services;
- access to intellectual property; and
- research and development capabilities.

Many of our competitors have greater manufacturing capacity, multiple manufacturing facilities, more advanced technological capabilities, a more diverse and established customer base, greater financial, marketing, distribution and other resources and a better cost structure than ours.

We seek to compete primarily on the basis of technology, production quality, device yields and services involving design, support and manufacturing. We believe we have a differentiated service offering and track record in specialized markets, which enables us to effectively compete with larger IC manufacturers.

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 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 35 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 IC supplier or directly to its final destination.

PROCUREMENT AND SOURCING

Our manufacturing processes use many raw materials, including silicon wafers, chemicals, gases and various metals. These raw materials generally are available from several suppliers. In many instances, we purchase raw materials from a single source. In connection with our technology advancement plans, we expect to continue to make purchases of semiconductor manufacturing equipment, mainly for Fab 2.

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 technologies that we primarily license and transfer from third parties. We also develop these technologies on our own, at our own initiative, our customers' request or in cooperation with our customers.

From time to time, at a customer's request, we develop a specialty process module, which we use for such customer on an exclusive basis, and, if permitted under our agreements with such customer, we then add it to our process offering. Such developments are very common in all of our special process technologies noted above. In 2004, in response to market demand, we introduced a 0.16-micron optical shrink solution which represents a 10% linear shrink from our existing 0.18-micron offering while utilizing virtually the same 0.18-micron libraries and IP. The shrink allows a 15 to 20 percent die size reduction and a potentially higher wafer ASP and lower die cost. Applications include industry standard CMOS logic and some mixed-signal technologies. This 0.16-micron technology is currently in production.

Our research and development activities have related primarily to our process development efforts and have been sponsored and funded by us with some participation by the Israeli Office of the Chief Scientist, or OCS. Accordingly, we are subject to restrictions set forth in Israeli law which limit the ability of a company to manufacture products or to transfer technologies outside of Israel, if such products or technologies were developed with OCS funding. Research and development expenses for the years ended December 31, 2004, 2005 and 2006 were $17.1 million, $16.0 million and $15.0 million, net of government participation of $1.5 million, $1.0 million and $1.9 million, respectively.

As of May 31, 2007, we employed 157 professionals in our research and development department, 30 of whom have PhDs. In addition to our research and development department located at our facilities in Migdal Haemek, 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 acquired certain patents and patent licenses and intend to continue to seek patents on our production processes. As of March 31, 2006, we held 61 patents. We have entered into various patent licenses and cross-licenses with technology companies including Toshiba, Freescale, Synopsys, ARM, Chipidea Microelectronics, Virage Logic, Impinj and others. We may choose to renew our present licenses or obtain additional technology licenses in the future. There can be no assurance that any such licenses could be obtained on commercially reasonable terms.

We constantly seek to strengthen our technological expertise through relationships with technology companies and silicon suppliers. We seek to expand our core strengths in CMOS image sensors, embedded flash and mixed-signal technologies by combining our proprietary technology with those of other technology companies. 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 enormously reduced our internal development costs.

CMOS PROCESS TECHNOLOGY PLATFORM

We have licensed an array of process technologies through the following arrangements:

TOSHIBA. In April 2000, we entered into a technology transfer agreement with Toshiba, pursuant to which Toshiba has transferred to us certain advanced CMOS technologies for use in Fab 2. In exchange for certain license and technology transfer fees and royalties, Toshiba has provided us with recipes, know-how and patent licenses and has trained a group of our engineers and managers. Subject to prior termination for cause by Toshiba, our licenses under the agreement with Toshiba are perpetual. Based on Toshiba's 0.18-micron CMOS process technology, we have internally developed an enhanced industry compatible version of the process technology.

MOTOROLA (NOW FREESCALE). In September 2002, we entered into a technology

transfer and development agreement with Motorola, pursuant to which Motorola transferred to us its 0.13-micron HiPerMOS7 CMOS process technology for Fab 2 as well as co-developed with us an industry-standard compatible version of the process technology. Subject to prior termination for cause by Motorola, our licenses under the technology transfer agreement with Motorola are perpetual. In August 2004, Motorola assigned all of its rights and obligations under the aforementioned agreement to Freescale.

FOUNDATION IP BLOCKS

To better serve our customers design needs using advanced CMOS processes and mixed-signal, 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 and are used in most of our customers' chip designs.

SYNOPSYS. In June 2001, we entered into an agreement with Synopsys (formerly, Avant!) under which Synopsys has developed libraries for our 0.18-micron process technology. Multiple customers use the Synopsys libraries in producing their ICs at our company. In 2004, we entered into a set of comprehensive technology transfer and license agreements with Synopsys that provide us with broad rights to use Synopsys' library technology in multiple process technology generations including 0.18 micron and 0.13 micron. Under these agreements, we were given the right to develop, customize, validate and characterize libraries, based on Synopsys' library technology and to distribute such libraries through and have them supported by Synopsys. These agreements place us in a superior position of having in-house capability to serve our customers' needs. Certain parts of the 2004 license agreements, relating to elements of distribution and support by Synopsys, expired in October 2006, and we may be unable to extend or renew them on similar terms.

ARM (including its wholly-owned subsidiary, ARM Physical IP). In 2002 and subsequently in 2004 and 2006, we entered into license agreements with ARM (formerly, Artisan Components) under which we received a license to a suite of library products for our 0.18-micron and 0.13-micron process technologies and ARM licenses its libraries to our customers free of charge. Multiple customers are using the ARM libraries in their chip design for manufacturing at our company. The ARM libraries include, among others, standard cells, general purpose and specialty input-output cells and memory generators.

VIRAGE LOGIC. In 2002 and subsequently in 2004, we entered into license agreements with Virage Logic under which we received a license to a suite of library products for our 0.18-micron and 0.13-micron process technologies, respectively. These library products are available for licensing by our customers, and with respect to most of the 0.13-micron library products, free of a license charge. Virage offers a variety of SRAM and ROM memory compilers on both process technologies, and also offers standard cells, general purpose and specialty input-output cells libraries in the 0.13-micron technology. Presently, multiple customers' products that use Virage Logic's memory products are in production at Fab 2. In addition, our license agreement with Virage Logic from 2002 has also introduced Virage Logic's patented Nonvolatile Electrically Alterable embedded memories for production on our 0.18-micron CMOS logic process. Currently customers' products that use Virage Logic's non-volatile memory products are in production at Fab 2. We have selected and qualified these memories for our process to help our customers meet their application requirements for cost-effective embedded non-volatile memory for security, encryption, unique device identification, analog trimming, silicon repair and flexible program store.

CHIPIDEA MICROELECTRONICS. In 2003 and subsequently in 2005, we entered into a non-exclusive, perpetual, royalty-free license and design agreement with Chipidea Microelectronics. Further to this agreement, Chipidea has customized several of its mixed-signal design blocks for manufacturing on our 0.18-micron and 0.13-micron process technologies, such asUSB 2.0 (Universal Serial Bus 2.0) and USB2.0 OTG (On The Go), which are currently being utilized by several of our customers.

IMPINJ INC. In 2005, we entered into a development and license agreement with Impinj Inc. under which Impinj is developing its AEON(R) non-volatile memory (NVM), in parallel architecture, based on its patented Self-Adaptive Silicon(R) technology, for production on our 0.13-micron CMOS logic process. We chose Impinj's cost-effective NVM to help our customers' products meet their application requirements for embedded non-volatile memories. Primary applications for Impinj's AEON parallel architecture include analog trimming, digital rights management and wireless controllers. In 2007, Impinj's AEON(R)/MTP Parallel Architecture NVM cores became available in our 0.13-micron logic process.

IMAGE SENSOR TECHNOLOGIES

We developed, both independently and together with our customers, basic pixel intellectual property to be used by those customers in the manufacturing of our CMOS image sensor products.

C. ORGANIZATIONAL STRUCTURE

The legal and commercial name of our company is Tower Semiconductor Ltd. We were incorporated under the laws of the State of Israel in 1993. We have one subsidiary, incorporated in the United States under the name Tower Semiconductor USA, Inc. Our subsidiary is wholly-owned by us.

D. PROPERTY, PLANTS AND EQUIPMENT

MANUFACTURING FACILITIES

FAB 1

We acquired our Fab 1 facility from National Semiconductor in 1993, which had operated the facility since 1986. 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 from 5,000 wafers per month, using 1.25-micron and 1.0-micron processes, to approximately 16,000 wafers per month as of May 31, 2006 depending on process technology and product mix, using our 1.0 micron to 0.35-micron processes, including specialized processes. Fab 1 is also manufacturing products for Siliconix Incorporated and Siliconix Technology C.V under a long term foundry agreement that we entered into in May 2004 using process technology that Siliconix transferred to us.

Our exact capacity is variable and depends on the combination of the processes being used and may be significantly lower at certain times as a result of certain of our combinations. 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 within the building shell of Fab 1.

FAB 2

In January 2001, we commenced construction of Fab 2, our advanced wafer fab adjacent to Fab 1 in Migdal Haemek. 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 a 0.18-micron process technology we licensed from Toshiba, as well as 0.13-micron process technology we licensed from Freescale. Fab 2 is also manufacturing products in 0.35-micron process technology that International Rectifier Corporation transferred to us under a long term foundry agreement that we entered into in September 2006.

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. Production capacity as of May 31, 2007 was approximately 21,000 wafers per month. 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 40,000 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. Capital expenditures in 2006, 2005 and 2004 were approximately $146 million, $30 million and $173 million, respectively, before related Investment Center grants of $0 million, $6 million and $30 million, respectively.

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").

ENVIRONMENTAL MATTERS AND CERTIFICATIONS

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.

We believe that we are currently in compliance in all material respects with applicable environmental laws and regulations.

In November 2004, we received ISO 14001 certification from The Standards Institution of Israel. A series of international standards on environmental management, ISO 14000 provides a framework for the development of an

environmental management system and the supporting audit program. ISO 14001 is the cornerstone standard of the ISO 14000 series. It specifies a framework of control for an environmental management system pursuant to which an organization can be certified by a third party. The ISO 14001 certification applies to all of our manufacturing facilities. Our authorized design center in Netanya, Israel also received certification.

In December 2004, we received the OHSAS 18001 certification from the Standard Institution of Israel, which provides the framework of control for Safety and Health. This certification covers all of our activities and departments.

In November 2005, we achieved ISO/TS 16949 certification from the UK-based National Quality Association pertaining to the manufacturing processes, work procedures and product performance meeting the requirements of the automotive industry. This quality management system standard certification covers all our departments and activities.

In March 2006, we achieved ISO 17799 certification from The Standards Institution of Israel for the high quality of our security technology and implementations, covering all our departments and activities.

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, 2006 AND RELATED NOTES AND THE INFORMATION CONTAINED ELSEWHERE IN THIS ANNUAL REPORT. OUR FINANCIAL STATEMENTS HAVE BEEN PREPARED IN ACCORDANCE WITH GENERALLY ACCEPTED ACCOUNTING PRINCIPLES ("GAAP") IN ISRAEL. DIFFERENCES BETWEEN ISR