
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, 2002 COMMISSION FILE NO. 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)

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:

None

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

Ordinary Shares, par value New Israeli Shekels 1.00 per share

(Title of Class)

Warrants

(Title of Class)

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:

43,435,532 Ordinary Shares.

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

Indicate by check mark which financial statement item the registrant has elected to follow:

Item 17 Item 18

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. 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”). As applicable to our consolidated financial statements for all fiscal periods for which financial data is presented herein, such accounting principles are substantially identical in all material respects to accounting principles generally accepted in the United States (“U.S. GAAP”), except as indicated in Note 20 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 capacity 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 start 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.

References to “Israel Corporation” or “Israel Corp.” include its wholly-owned subsidiary Israel Corporation Technologies (ICTech) Ltd. (“ICTech”).

microFLASH® is a registered trademark of Tower and N-ROM™ is a trademark of Saifun Semiconductor Ltd.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS.....	4
ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE.....	4
ITEM 3. KEY INFORMATION.....	4
SELECTED FINANCIAL DATA.....	4
RISK FACTORS	4
SPECIFIC RISKS RELATED TO THE FAB 2 PROJECT.....	4
GENERAL RISKS AFFECTING OUR BUSINESS.....	8
RISKS RELATED TO OUR ORDINARY SHARES.....	17
RISKS RELATED TO OUR OPERATIONS IN ISRAEL.....	19
ITEM 4. INFORMATION ON THE COMPANY.....	21
HISTORY AND DEVELOPMENT OF THE COMPANY.....	21
BUSINESS OVERVIEW.....	21
PROPRIETARY RIGHTS.....	29
PROPERTY, PLANTS AND EQUIPMENT.....	29
ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS.....	31
SELECTED FINANCIAL DATA.....	31
OVERVIEW AND TREND INFORMATION.....	32
MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.....	32
LIQUIDITY AND CAPITAL RESOURCES.....	36
FAB 2 AGREEMENTS.....	38
RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES.....	45
IMPACT OF INFLATION AND CURRENCY FLUCTUATIONS.....	45
ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES.....	47
DIRECTORS AND SENIOR MANAGEMENT.....	47
COMPENSATION.....	52
BOARD PRACTICES.....	52
EMPLOYEES.....	54
SHARE OWNERSHIP.....	55
ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS.....	55
MAJOR SHAREHOLDERS.....	55
RELATED PARTY TRANSACTIONS.....	57
ITEM 8. FINANCIAL INFORMATION.....	60
ITEM 9. THE OFFER AND LISTING.....	60
MARKETS AND SHARE PRICE HISTORY.....	60
ITEM 10. ADDITIONAL INFORMATION.....	61
ARTICLES OF ASSOCIATION; ISRAEL COMPANIES LAW.....	61
MATERIAL CONTRACTS.....	64
EXCHANGE CONTROLS.....	65
TAXATION.....	65
DOCUMENTS ON DISPLAY.....	67
ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK..	68
INTEREST RATES.....	69
FOREIGN EXCHANGE RISK.....	71
ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES.....	71

PART II

ITEM 13. DEFAULTS, DIVIDEND AVERAGES AND DELINQUENCIES.....	72
ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS.....	72
ITEM 15. CONTROLS AND PROCEDURES.....	72
ITEM 16. [RESERVED].....	72

PART III

ITEM 17. FINANCIAL STATEMENTS.....	73
ITEM 18. FINANCIAL STATEMENTS.....	73
ITEM 19. EXHIBITS.....	73

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

The selected financial data is incorporated by reference to Item 5 of this annual report.

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.

Specific Risks Related to the Fab 2 Project

In addition to the risks and uncertainties that may affect our business generally as described below, our plans to construct and complete Fab 2 are subject to risks and uncertainties, including those discussed below.

We will need to satisfy the financial covenants set forth in our credit facility agreement. Our Fab 2 credit facility agreement, as currently in effect, requires us to continue to raise minimum amounts from specified financial sources as follows: \$110 million by the end of December 2002 (of which we have raised \$86.2 million to date) and an additional \$34 million by the end of December 2003. Our agreements with our banks also require that we achieve successful production at Fab 2 of 5,000 wafer starts per month by November 2002 and 15,000 wafer starts per month by September 2003. Each milestone provides for a seven and a half month grace period. In addition, our Fab 2 credit facility agreement has significant additional conditions and covenants. We do not expect to meet our additional milestones for production capacity at Fab 2 by their prescribed completion dates.

We are currently engaged in negotiations with our banks in connection with our financing obligations. While in the past we have been successful in procuring from our banks extensions to meet our additional financing obligations beyond the dates set forth in the credit facility agreement, we cannot assure you that our banks will agree to waive our current or any future failure by us to observe covenants or satisfy conditions under the

facility agreement, some of which are not in our control, or that we will be able to refinance our indebtedness if they do not waive such failure. We are in the process of retaining a world leading first-tier consulting firm to review our Fab 2 plan in light of the changes that have occurred in the semiconductor market and world economy, and the capital expenditures we have made and expect to continue to make. We expect that our banks will look to the results of the report of the consultant we are retaining in evaluating the terms under which the banks will continue to fund the Fab 2 project.

If, as a result of any default, our banks were to accelerate our obligations, we would be obligated to immediately repay all loans made by the banks plus penalties, and the banks would be entitled to exercise the remedies available to them under the credit facility agreement, including enforcement of their lien against all our assets. An event of default under the credit facility and the subsequent enforcement by the banks of their remedies under the credit facility may allow our wafer partners, financial investors and the Investment Center of the State of Israel to declare a breach of our obligations to them and, based on our current available cash position, would jeopardize the Fab 2 project and our ability to continue our operations even in Fab 1.

Failure to achieve milestones and comply with various conditions and covenants under our financing agreements for Fab 2 could jeopardize Fab 2 and our existing operations. Our receipt of the additional funds committed by our wafer partners and financial investors depends upon our achievement of conditions set forth in the share purchase agreements, including obtaining additional financing, receiving governmental grants, adding an additional wafer partner and meeting a milestone relating to the ramp-up of production at Fab 2. As part of our Fab 2 investment agreements, we must raise a cumulative total of \$50 million from new wafer partners by March 31, 2003, or our wafer partners will not be required to complete their investment for the fifth milestone. As part of the pending amendments to our agreements described below, we would be relieved of the obligation to raise an additional \$50 million from new wafer partners if we raised at least \$41 million from our current wafer and equity partners by the end of 2003 under the amended terms.

Under their agreements, our major wafer and equity partners are to complete their committed investments upon our satisfaction of the fifth milestone, which is the successful production of 5,000 wafer starts per month for two full consecutive months. Under our Fab 2 investment agreements, the fifth milestone is to be achieved by mid July-2003 when taking into account a seven and a half month grace period. We are currently in a position in which we will not achieve the fifth milestone by its prescribed completion date.

In March 2003, we reached an agreement with our major Fab 2 investors, who have agreed to advance the fifth and final Fab 2 milestone payment prior to our meeting the milestone and waive our requirement to raise \$50 million from new wafer partners. See "Item 5 - Operating and Financial Review and Prospects – Fab 2 Agreements." The amendment to the investment agreements is subject to the approval of our shareholders, our banks and other regulatory bodies, which may not be obtained. Should our banks agree to provide interim funding pending approval of the terms of this amendment, our major Fab 2 investors may (following approval by our shareholders) advance a portion of the amount

they have agreed to pay under the terms of the amended fifth milestone payment agreements.

Failure to achieve any of our milestones or other commitments, due to either our failure to reach the minimum production capacity, or insufficient demand for our products, and to satisfy or comply with the other applicable conditions and covenants in our investment and Fab 2 credit facility agreement on a timely basis, may, unless such failure is waived, result in cancellation or delay of our Fab 2 funding arrangements and an event of default under the credit facility. An event of default under the credit facility and the subsequent enforcement by the banks of their remedies under the credit facility may allow our wafer partners, financial investors and the Investment Center to declare a breach of our obligations to them and would jeopardize the Fab 2 project and our ability to continue our operations even in Fab 1.

Deferrals of Fab 2 equipment purchases could harm our ability to satisfy customer orders due to insufficient production capacity. We are currently deferring Fab 2 equipment purchases pending the completion of discussions with our banks regarding our current financing obligations. Even if we successfully conclude the discussions with our banks and we continue to make equipment purchases, we may further defer our equipment purchase commitments in the event that market conditions do not improve significantly and the utilization of Fab 2 is lower than forecasted. However, in the event that our forecasts are inaccurate and market conditions significantly recover more rapidly than we can purchase, install and qualify necessary production equipment, we may not be able to fully meet customer demand and we will not be in a position to fully capitalize on the increase in demand for foundry services. Delays in purchasing equipment for our Fab 2 project may also result in a loss of suppliers, a delay in equipment delivery schedules and unfavorable payment terms. Consequently, any under-capacity will negatively impact our financial results, and may result in our need to raise additional funds to complete the Fab 2 project.

We may from time to time experience a short-term lack of liquidity for Fab 2. In addition to the approximately \$1.15 billion which has been raised or committed to date to complete our Fab 2 project, we will need an additional approximately \$354 million through 2006. As a result, we may from time to time experience a short-term lack of liquidity for Fab 2 or may not be able to raise the required funding at all. If we foresee that we will be unable to secure additional financing, we may have to reevaluate, or even cease our operations. While we have been successful in the past at negotiating price reductions and arrangements to slow down or postpone payments to our suppliers and service providers when we had liquidity problems, we cannot assure you we will be able to do so in the future and any postponement of payments may delay the increase of capacity of Fab 2 and therefore harm our financial results.

Our Fab 2 business plan makes assumptions with respect to proceeds from the sales of wafer products to Fab 2 customers; however, we are continuously reevaluating our Fab 2 business plan to adapt it to the expected funds availability and the anticipated Fab 2 revenues. If we are not successful in generating sales of wafers to Fab 2 customers, our cash from operations will be negatively affected and we will be required to raise additional funds or decrease our level of purchases of new equipment for Fab 2.

We must meet conditions to receive the Israeli government grants and tax benefits approved for Fab 2. In connection with Fab 2, we have received approval for grants and tax benefits from the government of Israel under its Approved Enterprise Program. Under the terms of the approval, we are eligible to receive grants of 20% of up to \$1.25 billion invested in Fab 2 plant and equipment, or an aggregate of \$250 million, over a period of time. We are also entitled to a tax holiday on all taxable income related to Fab 2 for the first two years in which we have taxable income. To continue to be eligible for these grants and tax benefits, we must meet conditions provided in the applicable law and contained in our approved enterprise certificate, including a requirement that at least approximately \$400 million of our Fab 2 funding consist of paid-in-capital. If we fail to comply with these conditions in the future, some of the benefits received could be canceled, and we could be required to refund payments previously received under these programs or pay increased taxes. In addition, the funding commitments of our Fab 2 investors and our banks are conditioned on our Fab 2 approved enterprise status remaining in effect. As of March 31, 2003, we have received approximately \$90.9 million in grants from the Investment Center, and raised \$261.3 million as paid in capital towards the \$400 million.

Consistent with the requirements of Israeli law, our investment grant requires that we complete our investment program by 2005. Due to the later than planned commencement of construction of Fab 2 and prevailing market conditions, we do not currently expect to complete our Fab 2 investments through 2005. Israeli law limits the ability of the investment center to extend the 5-year investment limitation. We have notified the Investment Center of our revised investment schedule and it is currently being evaluated by the investment center. We have also informed the investment center of our reduced rate of annual investments and our lower than projected expectations for Fab 2 sales. While we have always ultimately been successful in concluding arrangements with the investment center, we cannot assure you that we will be successful in reaching arrangements with the investment center with respect to the remaining portion of our grants, which may result in the cancellation of all or a portion of our grants.

Our Fab 2 business plan makes assumptions for our receipt of additional government grants for investments in Fab 2 in excess of \$1.25 billion; however, our government grants are currently limited to \$250 million and there is no assurance that we will be entitled to any additional grants in the future.

Fab 2 costs may exceed our estimates. We estimate the total cost of the construction and equipping of Fab 2 will be approximately \$1.5 billion through 2006, including hiring and training personnel, purchasing and developing technology and equipment and other general expenses. However, the actual cost of Fab 2 may exceed our estimate as a result of several factors, including difficulties or delays in the construction of the facility or in commencement and ramp-up of production, higher insurance costs due to widespread global acts of terror, increases in equipment prices, and currency exchange rate or interest rate fluctuations. We may need to raise additional funds over the estimated total cost of approximately \$1.5 billion to cover those potential additional costs. There is no assurance that these additional funds will be available on a timely basis and on satisfactory terms.

General Risks Affecting Our Business

We have completed construction of our new Fab 2 facility, however we still need to complete the equipment installation and ramp up of production in Fab 2 to successfully compete over the long term. The trend within the semiconductor industry is toward ever-smaller features; state-of-the-art fabs are currently using process geometries of 0.18 microns and below. Our current facility, Fab 1, is limited to geometries of 0.35 microns and above. Fab 2 currently has production capacity of approximately 2,000 wafer starts per month, and we expect Fab 2 to be fully ready for production by mid-2003. We must successfully complete qualification of process technologies for Fab 2 and ramp up of production to full capacity in Fab 2 to successfully compete over the long term.

We have a recent history of operating losses and expect to operate at a loss through at least the end of 2004 primarily due to non-capitalized Fab 2 expenses and a high level of depreciation and amortization; our facilities must operate at or close to capacity and improve our product mix to be profitable. Our Fab 1 facility operated at a loss for the last five years and is expected to operate at a loss through at least the end of 2003. Because fixed costs represent a substantial portion of the operating costs of semiconductor manufacturing operations, we must operate our facilities at or near full capacity to be profitable. We operated significantly below capacity from 1996 through 2002. Although utilization improved significantly during 2000, we experienced a slowdown in demand in the fourth quarter of 2000 that deepened in 2001 and continued into 2002. While our sales increased in each of the first three quarters of 2002, in the fourth quarter of 2002, we, again, experienced a slight reduction in sales. In light of the slowdown in the worldwide economy, which has and is expected to continue to negatively impact our business, we expect to continue to experience overall underutilization of our Fab1 facility at least through the end of 2003. We are currently operating Fab 1 at a capacity utilization of approximately 70%. If we do not operate Fab 1 at or near full capacity levels and make the transition to a higher mix of products manufactured utilizing our higher-margin processes, we may not be able to achieve and maintain profitable operations in Fab 1, which could in turn result in our disposing of this facility. Following the completion of the construction of our Fab 2 facility, equipment installation, qualification of process technologies and the start of ramp up of production, these technologies and other Fab 2 assets will start to incur operating expenses as well as depreciation and amortization. Accordingly, even as we begin high utilization of Fab 2, we need to achieve significant production volume in order to be profitable. As a result, we expect to operate at an overall loss at least through the end of 2004, even if we are able to achieve and maintain profitable operations in Fab 1.

Credits given to our partners will affect cash flow from Fab 2 operations. We have credited our partners with a portion of amounts that they have previously paid to us as long-term customer advances to be credited against future purchases by these partners. To date, these credits amount to approximately \$47.7 million. While the issuance of credits have improved our cash flow from operations, the utilization of credits by our partners will adversely impact our liquidity at such time as our partners begin to purchase wafers from Fab 2 since we will be generating a lower level of cash from the sale of wafers to our partners. See “Item 5. Operating and Financial Review and Prospects – Fab 2 Agreements”

for a discussion of a proposed amendment to the terms of credits given to our wafer partners.

The cyclical nature of the semiconductor industry and the resulting periodic overcapacity and pressure to reduce prices may seriously harm our business. The semiconductor industry has historically been highly cyclical and has experienced significant economic downturns characterized by production overcapacity and rapid erosion of average sales prices. 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 a new downturn. We expect this pattern to repeat itself in the future. Our operating results for 1996 through 1999 were harmed by a downturn in the semiconductor market that resulted in reduced orders, underutilization of our facility and severe price erosion. Although utilization and average sales prices improved during 2000, demand slowed in the overall semiconductor market and in many of our end product markets beginning in the fourth quarter of 2000. This slowing in demand deepened in 2001 and continued in 2002. While analysts have predicted that the semiconductor market will strengthen in the second half of 2003, we cannot be assured that demand in the semiconductor market generally, or for our products, in particular, will improve.

While we are confident of the long-term growth prospects of the semiconductor business, we believe that the cyclical market behavior will continue. The overcapacity and price pressures characteristic of a prolonged downturn are likely to have an affect on all sectors of the market, and may not allow us to operate at a profit, even at full utilization of our Fab facilities and with an improved product mix. Therefore, the current downturn, and future downturns in the semiconductor business cycle, could seriously harm our financial results and business.

Fab 2 will give us significant additional manufacturing capacity and state-of-the-art capabilities to better serve our customers. However, it also significantly increases our cost structure and overall capacity and, therefore, our exposure to market downturns.

We depend on a small number of customers and business partners for a significant portion of our revenues; we must continue to attract additional customers and business partners to substantially increase our overall capacity utilization in both of our facilities. For the twelve months ended 2002, approximately 60% of our business was generated by three of our customers, National Semiconductor Corporation (31%), Matsushita Electronic Inc., a Japanese semiconductor manufacturer (16%) and Motorola, Inc. (13%), and approximately 21% was generated by an additional five customers. Although we have expanded and are continuing to expand our customer base, we expect to continue to receive a significant portion of our revenue from a limited number of customers. Loss or cancellation of business from or decreases in the sales prices to these customers could seriously harm our financial results and business. Furthermore, our arrangements with certain large customers permit these customers to reduce their orders, in some cases with little advance notice. If these customers order significantly fewer wafers than forecasted, we will have excess capacity that we may not be able to sell, resulting in lower utilization of our facility. 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 revenues, which could harm our financial results.

We have also entered into wafer partner agreements and agreements with technology providers under which we have committed a portion of our Fab 2 capacity for contemplated orders from these parties. Although we believe that our overall relationship with our wafer partners and technology providers, including their ownership of equity and the credits against wafer purchases which are established under the agreements, provide very strong incentives for the wafer partners and technology providers to become significant Fab 2 customers, they are not obligated to utilize all or any portion of their allocated capacity. Although we are constantly making efforts to identify additional wafer partners and customers to fill our new facility, there can be no certainty that we will be able to do so in the short or the long term.

The semiconductor market is subject to rapid change; we must keep pace to maintain and develop our products and services for the markets. The semiconductor market is characterized by rapid change, including the following:

- rapid technological development;
- evolving industry standards;
- changes in customer 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/or introducing to production specialized process technologies. We have also transferred 0.18 micron technology from Toshiba and begun the transfer of 0.13 micron technology from Motorola and are working on independent development of technologies for Fab 2. Our ability to achieve and maintain profitable operations depends on the successful development and introduction to production of these processes.

The development and introduction to production and the successful commercialization of these new processes is subject to the following risks, which could seriously harm our business:

- technical problems or delays in the development of the new processes;
- competition in attracting and retaining customers for the new processes;
- difficulty in recruiting and retaining qualified employees;
- failure of products that use our specialized processes to gain market acceptance; and
- failures of our customers' designs.

We also need to invest in continued process and/or product development, including the procurement of third party intellectual property in order to keep pace with changing technologies and to fulfill our customers' requirements. We may not have the required

resources to make such procurements or invest in such development or such development and procurement efforts may not be successful.

We must successfully complete development, introduction to production and performance enhancement of our *microFLASH*® memory and other advanced processes. We have made a substantial investment in the development of our *microFLASH* processes. We have introduced the first of our *microFLASH* processes into production with the manufacture of a 2 megabit stand-alone memory device and an embedded multi-time programming module, with a limited number of rewrite cycles. We have also started development of our *microFLASH* process for introduction in Fab 2. The long-term commercial success of our *microFLASH* process is dependent on our success in developing next generation processes and advances to this process, which will allow production of *microFLASH* products rated for greater than 10,000 erase-rewrite cycles. There is no assurance that we will successfully complete the planned development and introduction to production and advancement of our *microFLASH* processes. If we do not successfully complete the advancement of our *microFLASH* processes, we may not be able to achieve the planned sales and/or gross margins. Furthermore, the successful development of competing technologies may make our *microFLASH* technology obsolete prior to its reaching market.

We are engaged in the co-development with one of our customers of a specialized imaging process technology, for use of this technology in Fab 1 on an exclusive basis. In addition, we started to develop this process technology in Fab 2 using process geometries of 0.18 microns. If these development efforts are delayed or are not successful or if the customer is unable to commercialize its products, this could result in a serious loss of business and in our inability to recover our investments from these efforts.

We may encounter difficulties and delays in completing the construction and equipping of Fab 2 and in the transfer and implementation of the technologies for Fab 2. The construction and equipping of Fab 2 is a substantial and complex project, which requires the timely participation by and coordination of the activities of many participants, including our contractor, equipment vendors, technology providers outside consultants and our own employees. We have completed the construction but not the equipping necessary for production of 10,000 200mm wafers per month at Fab 2 and continue to install equipment to reach production capacity at this level. We will continue the construction and equipping necessary to reach the full production capacity of 33,000 200mm wafers per month in the future. Failures or delays in construction or in obtaining or coordinating the necessary equipment and other resources on a timely basis will delay the completion of the project and will add to its cost. We need to complete development of the 0.18-micron industry standard technology, transfer the 0.13 micron technology from Motorola and develop new process technologies for Fab 2 to suit our customers' needs. Any failures or delays in this process could have an adverse affect on our ability to complete the project and ramp up production at Fab 2. We can give no assurance that failures or delays in the construction or equipping of the facility or in the transfer and qualification of the technologies and ramp up of production will not occur. Such failures or delays may result in delays in funding, cash shortage or defaults under our Fab 2 financing agreements, any of which may negatively impact our financial results.

If we fail to meet conditions, we may lose our exclusive foundry license with Saifun. Saifun Semiconductors Ltd. has granted us exclusive foundry manufacturing rights to Saifun's proprietary N-ROM technology. Our agreement with Saifun requires that we maintain minimum levels of annual sales of products, which incorporate Saifun's technology through 2005. If we do not meet these minimum sales levels, our foundry manufacturing rights will become nonexclusive. As a result, if our Saifun manufacturing rights become non-exclusive, other foundries may obtain licenses from Saifun, which will enable them to manufacture semiconductor products for third parties using the Saifun process technology in direct competition with us.

Demand for new processes and products is difficult to predict. The success of our businesses depends on emerging markets and new products. In order for demand for our processes to grow, the markets for the end products using these processes must develop and grow. For example, the success of our imaging process technologies will depend, in part, on the markets for digital photography and video. Because our processes may be used in many new applications, it is difficult to forecast demand. If demand is lower than expected, we may have excess capacity, and if demand is higher than expected, we may be unable to fill all of the orders we receive.

We may experience difficulty in achieving acceptable device yields, product performance and delivery times as a result of manufacturing problems. 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 productivity. Microscopic impurities such as dust and other contaminants, difficulties in the production process or defects in the key materials and tools used to manufacture a wafer can cause a percentage of the 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. These problems may result from, among other things, the introduction of new processes or the expansion or upgrading of existing facilities. Any of these problems could seriously harm our financial results and business.

We need to hire additional employees for Fab 2. Our future success depends on our continuing ability to identify, hire, train and retain additional highly qualified technical and managerial personnel. There has historically been a shortage of qualified employees in the semiconductor industry and in Israel in particular, and competition for such personnel has at times been intense. If we fail to attract or retain the highly qualified technical and managerial personnel we need now or in the future, our financial results and business may be harmed.

We depend on our key management and technical employees; loss of the services and replacement of key employees could harm our operations. The loss of key employees could diminish our ability to develop and maintain relationships with customers and potential customers. The loss of technical personnel could harm our ability to run production smoothly and to meet development and implementation schedules. We do not maintain key man life insurance on any of our executives or employees.

In March 2003, both of our Co-Chief Executive Officers, Dr. Rafael Levin and Dr. Yoav Nissan-Cohen, tendered their resignations and effective as of June 1, 2003, both will be replaced by Carmel Vernia who has been designated by the Board to serve as Acting Chief Executive Officer, and Chairman of our Board of Directors commencing June 1, 2003. Mr. Vernia previously served as Israel's Chief Scientist of the Ministry of Industry and Trade and before that as a senior executive in Comverse Technology. Nevertheless, there is no certainty that we will be able to achieve a smooth transition from our veteran Chief Executive Officers, who have both faithfully served us in various senior management roles since our inception in 1993. In addition, our shareholders must approve the appointment of Mr. Vernia as the Chairman of our Board of Directors as well as Acting Chief Executive Officer. If our shareholders do not approve either appointment, we will have to seek alternative appointments and such process may have an adverse effect on our business.

We face competition; some competitors are better positioned to withstand market downturns. The semiconductor foundry industry is highly competitive. We compete with other dedicated foundries and with integrated semiconductor and end-product manufacturers that produce integrated circuits for their own use and/or allocate a portion of their manufacturing capacity to foundry operations. Many of our competitors 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; and/or
- a better cost structure.

We depend on a limited number of our suppliers of raw materials and do not typically have long-term supply contracts with them. 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, however, we purchase raw materials from a single source due to process requirements that make purchases from multiple sources impractical. If any of the following occurs in the future, it may take a substantial period of time for us to modify our production processes to allow the use of alternative materials:

- raw materials are not available from our sources;
- we are unable to obtain sufficient quantities of raw materials and other supplies in a timely manner;
- there is a significant increase in the costs of raw materials;
- we are required for other reasons to seek other sources for such materials.

Although supplies for the raw materials that we use currently are adequate, shortages could occur in various critical materials 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.

We depend on a limited number of manufacturers and vendors that make and sell the complex equipment we use in our manufacturing processes. In periods of high market demand, the lead times from order to delivery of this equipment could be as long as 12 to 18 months. The timing and cost of upgrades to Fab 1 and of equipping Fab 2 may be seriously affected by conditions in the equipment market. If there are delays in the delivery of needed equipment or if there are increases in the cost of this equipment, it could seriously delay the completion of or otherwise harm the Fab 2 project and the upgrades to Fab 1 or harm our financial results.

The exemption allowing us to operate our manufacturing facilities seven days a week is temporary and may not be renewed. 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, which has been renewed several times in the past, expires on December 31, 2003. 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. We expect the exemption to be renewed, but if the exemption is not renewed and we are forced to close the facility for this period each week, our financial results and business will be harmed.

Currency exchange and interest rate fluctuations could increase the cost of our operations. Almost all of our cash generated from operations and from our financing and investing activities is denominated in dollars and NIS. Our expenses and costs are denominated in NIS, dollars, Japanese Yen and Euros. We are, therefore, exposed to the risk of currency exchange rate fluctuations.

Our borrowings, including the loans contemplated under our Fab 2 credit facility, provide for interest based on a floating Libor rate, and we are therefore subject to exposure 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, which may increase the cost of our activities, particularly our construction and equipping of Fab 2, and following the ramp up of production in Fab 2, will increase our financing expenses.

Potential intellectual property rights disputes could make our operations more expensive or require us to change our processes. Our ability to compete successfully depends in part on our ability to operate without infringing on the proprietary rights of others. Possible infringement claims could harm our business by requiring us to pay royalties or to change our manufacturing processes. There are no lawsuits currently pending against us regarding the infringement of patents or intellectual property rights of others.

However, we have been a party to such claims in the past and recently received a notice from a technology company claiming that we are infringing its patent rights. This notice was followed by an offer to license the technology company's patents for a one-time license payment. All prior claims against us have been resolved through license agreements the terms of which have not had a material effect on our business. One of these agreements expires at the end of 2005 and we may be unable to extend or renew it on similar terms. We are currently analyzing the merits of the technology company's claim letter as well as its license offer.

We depend on the intellectual property of third parties in providing services to our clients. We rely on third party intellectual property to provide foundry and design services to our clients. We believe that we are in compliance with the licensing agreements with the owners of these rights and that the licensing agreements adequately protect our rights. If problems or delays arise with respect to such intellectual property, our customers' design and production could be delayed, resulting in underutilization of our capacity. Failure to maintain or acquire licenses could harm our business. In addition, license fees and royalties payable under these agreements may impact our margins.

We depend on technology partners to broaden our portfolio of process technologies. In order to compete in our market, we must continue to advance our process technologies through our internal technology development efforts and through technology alliances with leading semiconductor suppliers. Although we have an internal process development team dedicated to developing new semiconductor manufacturing process technologies, we depend on technology partners to advance our portfolio of process technologies. If we are unable to continue our technology alliances, or are unable to enter into new technology alliances with other leading semiconductor suppliers, we may not be able to continue providing our customers with leading-edge process technologies, which could seriously harm us.

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. We are currently operating under a conditional permit from the Israeli Ministry of Environmental Affairs concerning the concentration of fluoride in our wastewater. We believe that we are currently in compliance with the written terms of our permit with the following one exception. We are monitoring the levels of fluoride in accordance with an oral understanding with the Israeli Ministry of Environmental Affairs concerning how often we monitor the levels of fluoride, resulting in our monitoring the levels of fluoride less frequently than required by the written terms of our permit. We are working towards getting this understanding with the environmental authorities reduced to writing. There have been instances in the past where we were not in compliance with these restrictions, and despite our best efforts there may be future instances of non-compliance. We are also in discussions with the Israeli Ministry of Environmental Affairs regarding the possibility of easing of conditions set forth in our permit. If we cannot maintain our compliance with the conditions set forth in our permit or in our other understandings with the Ministry, we may be required to allocate financial resources for the implementation of an infrastructure solution in order to be in compliance with all the conditions. We estimate that such an infrastructure solution would cost approximately \$1 million. While we believe

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

Possible product returns could harm our business. Products manufactured by us are subject to return for specified periods if they are defective or otherwise fail to meet customers' specifications. Although we establish what we believe to be reasonable provisions against possible product returns based on our past experience, product returns in excess of such provisions may have an adverse effect on our business and financial condition.

We may be required to repay grants to the Israel Investment Center that we received in connection with Fab 1. Our Fab 1 facility received grants and tax benefits 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. In connection with our Fab 1 program, the Investment Center had taken the position that our ability to receive Fab 1 grants was dependent on our meeting specified forecasted levels of Fab 1 revenues and maintaining specified levels of Fab 1 employees and that we may be required to refund the grants we received if we do not meet specified forecasted levels of Fab 1 revenues and maintain specified levels of Fab 1 employees. Although we believe that the Investment Center's position is incorrect we have agreed 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. Fab 1 revenues in 2002 were \$43.7 million. At March 31, 2003, we employed approximately 440 employees in Fab 1.

Terrorist attacks that occurred in New York and Washington on September 11, 2001, the war in Iraq and other acts of violence or war may materially affect the markets on which our securities trade, the markets in which we operate, our operations and profitability. In the aftermath of the September 11, 2001 terrorist attacks on the United States, the United States-led coalition of nations commenced a series of retaliatory military strikes in Afghanistan upon strategic installations of the Taliban regime, and governmental intelligence authorities issue from time to time warnings of the imminent threat of further attacks against civilian and military installations. On March 17, 2003, a coalition of countries led by the United States and the United Kingdom commenced large scale military action against Iraq with the avowed purpose of effecting a change in the Iraqi regime. These attacks and armed conflicts, as well as the uncertainty surrounding these issues, have had, and we expect will continue for the unforeseeable future to have, an adverse effect on the global economy, and the semiconductor industry and could result in a disruption of our business or that of our customers. In addition, these events may discourage foreign technical experts and foreign employees, upon whom we rely for support and maintenance of our specialized fabrication equipment and for consultation necessary for the ongoing construction of Fab 2 and development activity in Fab 2, from

traveling to our facilities in Israel, which may result in delays to the Fab 2 construction and deployment timetable and could affect the performance of the equipment.

Corporate governance scandals and new legislation could increase the cost of our operations. As a result of recent corporate governance scandals and the legislative and litigation environment resulting from those scandals, the costs of being a public company in general are expected to increase in the near future. New legislation, such as the recently enacted Sarbanes-Oxley Act of 2002, will have the effect of increasing the burdens and potential liabilities of being a public reporting company. This and other proposed legislation may increase the fees of our professional advisors and our insurance premiums.

Risks Related to Our Ordinary Shares

Issuance of additional shares pursuant to Fab 2 related equity financings will dilute the interest of current and prospective shareholders. In connection with the Fab 2 project, we have issued to date, 31,141,772 ordinary shares to our wafer and equity partners. Subject to final approval of certain proposed amendments to our agreements, upon the payment of the fifth and final Fab 2 milestone payments by our wafer and equity partners, we will issue 8,382,794 additional ordinary shares pursuant to our existing agreements with our partners and approximately another 3 million additional ordinary shares, subject to fluctuations in the price of our ordinary shares in the future, in connection with the second installment of the fifth milestone payment. Up to 800,000 additional ordinary shares may be issued upon the exercise of warrants held by our banks and our Fab 2 contractor. In January 2002, we sold units comprised of convertible debentures, options to purchase our ordinary shares and options to purchase additional convertible debentures. Up to 8,102,746 additional ordinary shares are potentially issuable pursuant to these units as follows: (1) 2,697,068 shares would be issued assuming conversion of all the outstanding convertible debentures and (2) 2,211,596 shares would be issued assuming exercise of all the outstanding options to purchase ordinary shares, (3) 1,844,082 ordinary shares would be issued assuming exercise of all the outstanding options in connection with the distribution of rights to our shareholders in October 2002 and (4) 1,350,000 ordinary shares upon exercise of Warrants. We will also need to issue ordinary shares or securities convertible into ordinary shares in connection with new agreements or transactions with wafer and/or equity partners or private or public offerings of ordinary shares to raise required additional equity capital in connection with Fab 2. These issuances will result in significant dilution of the interest of current shareholders.

The market price of our ordinary shares has been, and may continue to be, very volatile. The market prices of our ordinary shares and the securities of other publicly traded companies have fluctuated widely. The following factors, among others, may significantly impact the market price of our ordinary shares:

- announcements of technological innovations or new products by us or our competitors;
- developments or disputes concerning patents or proprietary rights;
- publicity regarding actual or potential results relating to products

- under development by us or our competitors;
- events or announcements relating to our collaborative relationship with others;
- economic and other external factors;
- period-to-period fluctuations in our operating results; and
- volatility in the securities markets.

Market sales of large amounts of our shares eligible for future sale may lower the price of our ordinary shares. Of our 43,435,532 outstanding ordinary shares, 7,522,853 are freely tradable and an additional 1,372,180 shares held by non-affiliates are eligible for sale pursuant to Rule 144 under the Securities Act of 1933, subject to the time, volume and manner of sale limitations of Rule 144. Of these shares, 180,897, 772,667 and 418,818 shares will be freely tradable under Rule 144(k) by April 2003, May 2003 and September 2003, respectively. An additional 476,213 and 597,692 shares held by non-affiliates will be eligible for sale under Rule 144(k) by April 2003 and October 2003 respectively.

In addition, our affiliates (Israel Corporation Technologies (ICTech) Ltd., SanDisk Corporation, Alliance Semiconductor Corporation and Macronix International Co., Ltd.) hold 30,466,595 of our outstanding shares, of which 16,446,942 are currently eligible for sale subject to the time, volume and manner of sale limitations of Rule 144. An additional 4,404,968 shares held by these affiliates will be eligible for sale under Rule 144 by April 2003 and an additional 5,528,648 shares by October 2003. We also agreed with our affiliates to register the resale of 4,086,037 ordinary shares that they purchased in our rights offering in October 2002. We expect the registration statement covering these shares to be effective by the end of the second quarter of 2003.

We have agreed with Ontario Teachers' Pension Plan Board ("OTPP") to register for resale the 3,000,000 ordinary shares and the 1,350,000 ordinary shares underlying the warrants that OTPP purchased from us in October 2002. OTPP has agreed not to sell any of these securities before the end of July 2003

We are unable to predict the effect that sales of our ordinary shares may have on the then prevailing market price of our ordinary shares. It is likely that market sales of large amounts of our ordinary shares (or the potential for those sales even if they do not actually occur) will have the effect of depressing the market price of our ordinary shares. This could impair our ability to raise capital through the sale of our equity securities.

We may fail to meet the maintenance standards for the NASDAQ National Market or the Tel Aviv Stock Exchange, which would negatively impact the liquidity of our ordinary shares. If we fail to comply with the requirements for continued listing on the NASDAQ National Market or the Tel Aviv Stock Exchange, our ordinary shares, warrants and convertible debentures may be delisted from trading on such market. Consequently, selling and buying our securities would be more difficult because of delays in the timing of transactions and greater difficulty in selling securities and obtaining accurate quotations. These factors could result in lower prices and larger spreads in the bid and ask prices for our ordinary shares than might otherwise be obtained.

If our ordinary shares are delisted from the NASDAQ National Market, we cannot assure you that our securities will trade on the NASDAQ SmallCap Market. In addition, even if we obtain such alternative listing, broker-dealers would be subject to a SEC rule that imposes additional sales practice requirements on broker-dealers who sell low-priced securities to persons other than established customers and institutional accredited investors. For transactions covered by this rule, a broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written agreement to the transaction prior to sale. Consequently, this rule may affect the ability of broker-dealers to sell our ordinary shares and may affect the ability of shareholders to sell our ordinary shares in the secondary market.

Under our articles of association, two shareholders holding together 33% of our outstanding shares constitute a quorum for conducting a shareholders meeting.

Under our articles of association, two shareholders holding together 33% of our outstanding shares constitute a quorum for conducting a shareholders meeting. We have several large shareholders who together hold in excess of 33% of our outstanding shares and 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 shareholder meetings. If only two large shareholders were to participate in one of our shareholder meetings, these shareholders would determine the outcome of our shareholder meetings without the benefit of the participation of our other shareholders.

Risks Related to Our Operations in Israel

Instability in Israel may harm our business. All our manufacturing facilities and our corporate and primary 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, there has been an increase in unrest and terrorist activity which began in September 2000 and which has continued with varying levels of severity into 2003. Certain parties with whom we do business have 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 contracts claiming that they are not obligated to perform their commitments under those agreements pursuant to force majeure provisions. We do not believe that the political and security situation has had any material impact on our business to date; however, we can give no assurance that security and political conditions will have no such effect 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 is

currently experiencing civil unrest, terrorist activity and military action. Since we do not have a detailed disaster recovery plan that would allow us to quickly resume manufacturing, we could experience serious disruption of our manufacturing if acts associated with this conflict result in any serious damage to our manufacturing facility. 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.

Many of our employees in Israel are obligated to perform military reserve duty. 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 the increase in terrorist activity and the renewed Palestinian uprising, there has been a significant call up of military reservists, and it is possible that there will be additional call-ups in the future. 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.

It may be difficult to enforce a U.S. judgment against us, our officers and directors and some of the experts named in this annual report or to assert U.S. securities law claims in Israel. We are incorporated in Israel. Substantially all of our executive officers and directors and our Israeli accountants and attorneys, are nonresidents of the United States, and a substantial portion 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. Additionally, it may be difficult for you to enforce civil liabilities under U.S. Federal Securities laws in original actions instituted in Israel.

ITEM 4. INFORMATION ON THE COMPANY

History and Development of the Company

We are a pure-play independent wafer foundry established in 1993. We manufacture integrated circuits or IC's, with geometries ranging from 1.0 to 0.35 and recently initiated manufacture in geometries of 0.18 microns. In addition, we provide complementary manufacturing services and design support. Our base technology is foundry standard digital CMOS process technology, and we also offer value added advanced non-volatile memory solutions, mixed-signal and CMOS image-sensor technologies. ICs manufactured by us are incorporated into a wide range of products in diverse markets, including consumer electronics, personal computer and office equipment, communication, automotive, professional photography and medical products.

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 Migdal Haemek 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.

Upon our establishment in 1993, we acquired National Semiconductor Corporation's Israeli 150-mm wafer fabrication facility, which we sometimes refer to as Fab 1, and commenced operations as an independent foundry. Since then, we have significantly modernized our facilities and equipment, expanded our capacity and advanced our process technologies.

In January 2001, we commenced construction of a new, state-of-the-art 200-mm wafer fabrication facility, which we refer to as Fab 2, located adjacent to our current facility in Migdal Haemek. Fab 2 will operate in geometries of 0.18 microns and below, using advanced materials and advanced CMOS technology from Toshiba, Motorola and other technologies that we might acquire or develop independently. We have substantially completed the construction stage of Fab 2, are producing prototypes for our customers, and are at the stage of final qualification of our 0.18 micron process technology. When the production ramp is completed, Fab 2 is expected to have the capacity to produce up to 33,000 200-mm wafers per month and employ approximately 1,100 people.

Business Overview

Introduction

Semiconductor devices are the foundation of modern electronic equipment and systems, constituting critical components in an increasingly wide variety of applications, including computers systems and peripherals, digital still and video photography and consumer electronics. A semiconductor device may be either a discrete device, such as an individual transistor, or an IC in which a number of transistors and other elements are combined to form a more complex circuit. A wide variety of semiconductor products currently are in use, ranging from commodity products (such as DRAM, SRAM, Flash and

other commodity memories) to more differentiated products (such as microprocessors, ASICs and numerous digital, analog, embedded memory, imaging and mixed-signal ICs).

Users of foundry manufacturing services include so-called “fabless” semiconductor manufacturers which design their own proprietary devices but which do not have their own manufacturing facility, as well as integrated semiconductor manufacturers and end-product manufacturers which have manufacturing capacity but who “outsource” a portion of their manufacturing needs to outside foundries. Foundry services are now utilized by nearly every major semiconductor company in the world. While historically, integrated device manufacturers and end-users with their own fabs have used outside foundry services mainly for their incremental manufacturing needs, increasingly they have begun to rely more heavily on foundries for their core requirements. These trends have led periodically to increased demand for advanced foundry semiconductor manufacturing services.

We manufacture ICs on silicon wafers, generally using the customer’s proprietary designs. In some cases we use third-party designs or our own proprietary product design. Our end-product is a silicon wafer containing multiple identical ICs. The wafers are typically “diced” (separated into individual ICs), “assembled” (mounted in a plastic or ceramic package) and tested. In most cases our customer assumes responsibility for dicing, assembly and testing. In some cases we take responsibility for the production and delivery of finished IC products to our customer on a “turn-key” basis, and subcontract some or all of the dicing, assembly and testing functions to third parties. We also maintain limited assembly capabilities for manufacturing prototype units to facilitate customer evaluation and thereby accelerate new product introduction.

In 2002, we continued to focus on developing and providing customers with new, advanced proprietary process technologies and related value-added services in three specialized market areas: Flash memories, CMOS image sensors and mixed-signal applications. We succeeded in establishing significant business in each of these specialized markets. We plan to continue developing and offering advanced process technologies in these specialized markets, which we believe will enable us to improve sales and margins and more effectively compete with other foundries, including those with manufacturing capacity at feature sizes which we cannot offer. In January 2001, we commenced construction of Fab 2, which in its final stage is expected to more than double our capacity and enable us to manufacture wafers at 0.18 microns and below.

The semiconductor industry has historically been highly cyclical on a seasonal and on a long-term basis. On a long-term basis, the market has fluctuated, cycling through periods of weak demand, production overcapacity, excess inventory and lower sales prices and periods of strong demand, full capacity utilization, product shortages and higher sales prices. For example, the market saw the lower end of the cycle in 2001 and some improvement in 2002. Although there can be no assurance that this trend will continue or increase in 2003, some analysts suggest that there will be significant improvement in the second half of 2003 with a transition to a strong market in 2004 and 2005.

Due to the continuing weakness in the semiconductor industry and uncertainty regarding the timing of a turnaround in the foundry business, we revised our plans for the ramp up of production in our Fab 2 facility. We deferred the ramp up in order to align our

expenses in connection with the completion of the facility with the market and business realities facing our company, our customers and our industry. We now expect to commence commercial Fab 2 production by mid-2003.

Technology Overview

Our Fab 1 manufacturing technologies currently include 1.0 micron, 0.8, 0.6, 0.5 and 0.35 micron CMOS process technologies, with multiple levels of metal and single or double levels of poly, for standard logic, Flash and EPROM, image sensor and mixed-signal products. Fab 2 is expanding our portfolio of CMOS and other manufacturing technologies to 0.18 micron and below.

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 process technologies that we (1) license from third parties, (2) develop at our customers' request or in cooperation with our customers, (3) develop ourselves for expected market demand and (4) develop utilizing intellectual property licensed from third parties.

Due to certain facility and other technological and economical constraints, we are unable to reduce process geometries below 0.35 microns in Fab 1. However, Fab 2 will utilize advanced CMOS process technologies in geometries of 0.18 micron and below which are being transferred to us under technology transfer and license agreements with Toshiba and Motorola, and other advanced technologies that we are developing on our own or in cooperation with others.

During 2001 and 2002, we transferred Toshiba's 0.18 micron CMOS logic process which we will utilize in Fab 2. We have nearly completed the development of a 0.18 micron foundry standard process and mixed-signal modules, and we have begun the development of advanced *microFLASH* and CMOS image sensor process technologies and mixed-signal modules for Fab 2. Furthermore, we began the technology transfer of Motorola's 0.13-micron HiPerMOS7 (HiP7) CMOS process technology for Fab 2. Together with Motorola, we are developing a foundry standard process version, which we intend to use as the 0.13-micron technology platform for our analog, digital and mixed-signal processes, as well as for our proprietary CIS and flash technologies.

Approximately 68% of the IC products we produced for our customers during 2002 utilized our enhanced value added technology features, such as Flash, EPROM, CMOS Image Sensor and mixed-signal. We believe that our specialized process technology features distinguish our process offerings from those of competing foundries and attract major semiconductor companies to utilize our manufacturing services. Our Fab 1 facility continues to focus on expanding its offer of specialized process technologies. Similarly, Fab 2 is expected to manufacture standard logic products but its main focus will be future specialized products.

In conjunction with our corporate quality assurance policy, on February 6, 2003 we received the official ISO 9001:2000 certification from The Standards Institution of Israel. The principles of the ISO 9001 standard, 2000 edition, help organizations to implement quality management systems that ensure consistent production of high-quality products,

customer satisfaction and continuous improvement. A company receives ISO 9001:2000 certification upon verification by an independent examiner that it has complied with the standard. The ISO 9001:2000 certification encompasses all our facilities, including both our Fabs and our design center.

Our Process Technologies

Flash. Flash memory is a variation of Electrically-Erasable Programmable Read-Only Memory (EEPROM). Programmable Read-Only Memory (PROM) is read-only memory that can be written to only once, while EEPROM allows stored information to be selectively written and erased through special electrical stimulus. Flash memory enables faster erase of large sectors of memory cells. Our *microFLASH* technology, based on Saifun's patented N-ROM 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. The relative simplicity of our *microFLASH* manufacturing process enables the technology to offer 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.

During 2001, we continued the development of our *microFLASH* process for introduction in Fab 2 with advances to our *microFLASH* process that allow production of *microFLASH* products rated for 10,000 and more erase-rewrite cycles. In June 2002, we entered into an agreement with Matsushita Electronic Inc. for the joint development of 0.18-micron embedded *microFLASH* technology. Our development partner granted to us a royalty-free, non-exclusive license to its intellectual property with respect to its 0.18 micron process technology for manufacturing semiconductor devices that utilize our jointly developed technology in order to provide semiconductor foundry services or for our own semiconductor business. We granted our development partner a royalty-free, non-exclusive license with respect to our *microFLASH* technology for manufacturing semiconductor devices that utilize our jointly developed technology for its own semiconductor business. We are also developing *microFLASH* for memory products; and we have commenced sampling of this technology and intend to move to production in the second half of 2003. There is no assurance that we will successfully complete the planned development and introduction to production and advancement of our *microFLASH* processes.

As part of our strategy to offer a broad range of competitive embedded flash solutions, we entered into a development and license agreement with Virage Logic Corp., a company specializing in embedded memory technology. The agreement enables Virage Logic to develop and license to us and our customers the NOVeA(TM) family of non-volatile embedded memories on our 0.18-micron process technology. The NOVeA is based on large flash cells, but a standard CMOS manufacturing process, and therefore it is competitive for products requiring embedded flash modules with low densities. The agreement also grants us the right to license Virage Logic's 0.13-micron process technology for NOVeA in the future. The 0.18 micron version is currently under development and planned to be offered to customers in late 2003, although there is no certainty that the

development will be completed by the end of 2003. In addition, we are currently conducting a feasibility study in connection with a proposed new architecture, which was invented by one of our employees.

CMOS Image Sensors. CMOS image sensors (CIS) are image capture devices that are manufactured using a process similar to the CMOS process used in the manufacture of memory and logic ICs. CMOS image sensors are suitable for a broad spectrum of digital imaging applications. The high-end sensor market that we are targeting includes applications such as studio quality mega-pixel digital cameras and ingestible capsule cameras for medical imaging. While the portion of these markets to adopt CMOS image sensors for advanced optical applications is still a small one, we believe that CMOS image sensors are gradually becoming the preferred technology to traditional charge coupled devices (CCDs).

Our advanced CIS process is also intended to meet the growing demand for high quality optical sensors. Our dedicated manufacturing and testing processes assure consistently high electro-optical performance of the integrated sensor through wafer-level characterization. Our CMOS image sensor process has demonstrated superior optical characteristics, excellent spectral response, and high resolution and sensitivity. The ultra-low dark current, high efficiency and accurate spectral response to our photodiode enable faithful color reproduction and acute detail definition. In addition, our innovative “stitching” technology enables the manufacture of single ultra high-resolution CMOS image sensor containing millions of pixels. Our 0.5 and 0.35 micron CMOS image sensor processes permit the customer to create high quality solutions and integrates 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. In 2002, we began production of IC’s for FillFactory NV in connection with a customized 13.85 million pixel CMOS image sensor produced by FillFactory for Kodak Professional. This product utilizes our 0.5 micron CMOS image sensor processes. We are currently developing a 0.18 micron CMOS image sensor process.

Mixed-Signal. The growth in demand for products which utilize analog circuits in conjunction with digital data storage and/or manipulation has led to growth in the demand for mixed-signal ICs. A significant portion of the mixed-signal market tends to lag behind the rest of the semiconductor industry in the migration pace to smaller feature sizes. We have developed the Tower Mixed-Signal Design Kit, which contains comprehensive characterization of a wide range of analog devices, providing our customers with the ability to design mixed-signal devices for their specific needs. In addition, we developed certain mixed signal features for use with our 0.18 micron process, and are working to develop more features.

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 our customers, we then add it to our process offering. In 2002 and 2001, in cooperation with a customer, using also its know-how and IP, we developed an enhanced 0.35 micron CMOS image sensor process to be used exclusively for this customer. Production ramp on this process is currently expected to start in the second half of 2003.

The development and introduction to production of advanced technologies is a complex process, the success of which is dependent on many factors, some of which may be beyond our control. We therefore cannot predict when or if the development and introduction to production of these new processes will be successfully completed.

Licensing Partners

ARM Foundry Program

In November 2002 we joined the Arm Foundry License Program of ARM Holdings, a provider of 16/32-bit embedded reduced instruction set computer (RISC) microprocessor solutions. The ARM Foundry License Program enables fabless semiconductor companies in emerging markets to gain access to ARM processor technology for use in the design and manufacture of advanced system on-chip (SoC) solutions. Through the ARM Program, we will gain access to two of ARM's most widely used embedded microprocessor cores, enabling us to produce customers' ARM core-based products in Fab 2. As part of the agreement, ARM will validate cores built on our 0.18-micron process to provide silicon-proven intellectual property. In accordance with the agreement, we are obligated to pay ARM a license fee for each use of the ARM Cores, maintenance and support fees and other fees in the event that we exercise certain options under the agreement.

Artisan Components, Inc.

In June 2002, we entered into a master services and license agreement with Artisan Components, Inc. Artisan is a provider of industry standard design platforms, which are used worldwide. As part of the agreement, Artisan will deliver a suite of memory generators, a standard cell library and a complete set of general-purpose I/Os optimized for our 0.18-micron CMOS process. The agreement provides for the customization of their platforms for us. In consideration, we will pay Artisan license and customization fees for the design platform. In addition, we will pay royalties to Artisan in connection with integrated circuits developed through use of the licensed platforms.

CMOS

Toshiba. In April 2000, we entered into a technology transfer agreement with Toshiba Corporation of Japan, pursuant to which Toshiba has and will transfer to us certain advanced CMOS technologies for use in Fab 2. In exchange for certain license and technology transfer fees and royalties, Toshiba has and will provide us with recipes, know-how and patent licenses and have trained a group of our engineers and managers.

Motorola. In September 2002, we entered into a technology transfer and development agreement with Motorola, pursuant to which Motorola has and will transfer to us its 0.13-micron HiPerMOS7 CMOS process technology for Fab 2. The agreement provides for the cooperation between us and Motorola to further enhance the technology to provide compatibility with the widest range of industry-standard design tools and services. We intend to use the industry standard process version as the 0.13-micron technology platform for our analog, digital and mixed-signal processes, as well as for our proprietary CMOS image sensor and flash technologies.

Chipidea Microelectronica S.A. In January 2003 we entered into a license and design agreement with Chipidea Microelectronica S.A., a Portuguese corporation which designs and sells various types of blocks for ICs. In accordance with the agreement, we agreed to pay Chipidea a service fee in return for its customization of its blocks for manufacture by us. Following the customization, our customers will be able to access these blocks, at a preferred cost, and to integrate them in their ICs for manufacture by us.

Embedded Flash Memory

Virage Logic Corp. In March 2002, we entered into a development and license agreement with Virage Logic Corp., a company specializing in embedded memory technology. The agreement enables Virage Logic to develop and license to us and our customers the NOVeA(TM) family of non-volatile embedded memories on our 0.18-micron technology. The NOVeA is based on large flash cells, but a standard CMOS manufacturing process, and therefore it is competitive for products requiring embedded flash modules with low densities. The agreement also grants us the right to license Virage Logic's 0.13-micron process technology for NOVeA in the future. The 0.18 micron version is currently under development and planned to be offered to customers in late 2003, although there is no certainty that the development will be completed by the end of 2003.

Matsushita Electronic Inc. In June 2002, we entered into an agreement with our development partner, Matsushita Electronic Inc. for the joint development of 0.18-micron embedded *microFLASH* technology. Matsushita granted to us a royalty-free, non-exclusive license to its intellectual property with respect to its 0.18 micron process technology for manufacturing semiconductor devices that utilize our jointly developed technology in order to provide semiconductor foundry services or for our own semiconductor business. We granted our development partner a royalty-free, non-exclusive license with respect to our *microFlash* technology for manufacturing semiconductor devices that utilize our jointly developed technology for its own semiconductor business.

Sales and Markets

When we commenced business in March 1993, our only customer was National Semiconductor Corporation. We have succeeded in adding significant new customers, but we remain dependent on a small number of customers for most of our business. In 2002, approximately 60% of our business was generated by our top three business partners, National Semiconductor Corporation (31%), Matsushita Electronic Inc. (16%) and Motorola, Inc. (13%). Sales to the next five largest customers accounted for approximately 21% of our sales. Most 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 facility for such customers. Most of the products manufactured at Fab 1 are being "sole sourced" in our facility. Information regarding the geographical breakdown of sales is incorporated herein by reference to Note 15A to our consolidated financial statements.

During 2001 and 2002, we worked with several customers on introducing various CMOS image sensor products to production in Fab 1, including co-development of a

special 0.35 micron CMOS image sensor process for use by one of our customers which is expected to start production during the second half of 2003. In 2002, our revenues were derived from the following regions: United States (62%), Far East (25%), Europe (11%) and Israel (2%).

During each of 2002, 2001 and 2000, we manufactured in Fab 1 over 200 sophisticated semiconductor products for use by our customers (or end users) in a wide variety of applications. These applications include personal computer products and peripherals (such as super input/output devices), communications products (such as two-way radios), wireless communication products (such as cellular telephones), image sensor products (such as cameras on a chip and x-ray sensors) and consumer products (such as television and monitor on-screen displays). The number and end-market distribution of the products that we manufacture in 2003 and in future periods will be determined by customer orders. We commenced the construction of Fab 2 in 2001 and now expect to start initial production by mid-2003 and to achieve sales by the second half of 2003. Initially, we expect that most of our orders will come from our wafer partners, SanDisk, Alliance Semiconductor, Macronix International, and QuickLogic and later from additional customers, some of which are currently in initial prototyping phases. We are reinforcing our marketing and sales team, in order to increase our sales in the US, Europe and the Far East and recently hired Harold Blomquist as our Senior Vice President of Business Operations and as Chief Executive Officer of our US subsidiary to head up these efforts.

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 connection with our technology advancement plans, including our Fab 2 business plan, we expect to continue to make purchases of semiconductor manufacturing equipment.

Competition

The semiconductor foundry industry is highly competitive. We compete with other dedicated foundries, including Taiwan Semiconductor Manufacturing Corporation, United Microelectronics, Chartered Semiconductor Manufacturing and emerging Chinese, Korean and Malaysian foundries, and with integrated device companies and end-product manufacturers that produce ICs for their own use and/or allocate a portion of their manufacturing capacity to foundry operations.

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/or a better cost structure than ours. In our standard CMOS process offerings, we compete primarily by offering competitive pricing and a high level of service, quality and process customization.

Due to certain facility and other constraints, we are unable to reduce our process geometries in Fab 1 below 0.35 microns and are therefore limited in our ability to advance

our process technologies in Fab 1. While we have commenced construction of Fab 2, which will allow us to offer to our customers process geometries of 0.18 micron and below, we believe that we will continue to be able to compete using Fab 1 by offering specially targeted products and technologies that do not require the reduced process geometries.

During the downturns in the semiconductor market over the last seven years, we faced significant competition from other independent foundries, from our customers' internal manufacturing capacity and from other semiconductor manufacturers that made unused capacity available for foundry customers. During these periods, we experienced increased pressure to reduce prices to match reductions by our competitors, including certain of our customers with excess internal capacity. In many cases we implemented price reductions to maintain customer relationships and increase utilization of Fab 1. In some cases these price reductions resulted in wafer sales prices at or near the variable cost of producing the wafers, and even with such price reductions, we had excess capacity.

Proprietary Rights

We use internally developed process technologies and process technologies licensed from customers and from other third parties. Our 1.0 micron process and elements of our 0.8 micron processes are licensed from customers under royalty-free licenses. Other processes we use (including certain elements of the metallization technology used in conjunction with the 1.0 micron and 0.8 micron technologies) were developed over the last several years by our engineering team. Our specialized 0.6 micron process for EPROM applications and certain elements of our 0.5 and 0.35 micron processes utilize certain proprietary elements which are licensed from third parties. We recently patented certain methods and technology relating to our *microFLASH*, image sensor and other processes and maintain a number of other patents. We have also developed a specific 0.35 micron image sensor process based on one of our customer's intellectual property and we will manufacture based on this process for our customer on an exclusive basis. The disclosure in this Item above under "Licensing Partners" is incorporated herein by reference.

Property, Plants and Equipment

Our manufacturing facilities are located in Migdal Haemek, Israel.

Fab 1. We acquired the Fab 1 facility from National in March 1993 when National, which had operated the facility since 1986, sold the facility as part of a worldwide restructuring of its manufacturing operations. 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. Fab 1 includes an approximately 51,900 square foot clean room.

Since we commenced manufacturing at Fab 1, we have increased our manufacturing capacity from 5,000 wafer starts per month, using 1.25 and 1.0 micron processes, to approximately 20,000 wafer starts per month. Our current demand and technology mix are

primarily concentrated on our 0.35-micron, 0.5-micron and other specialized processes, and we thus estimate that the effective wafer production capacity of Fab 1 is 16,000 wafer starts per month. However, our exact capacity is variable and depends on the combination of the processes being used and may be significantly lower 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 our original facility. Approximately one-third of our Fab 1 capacity is capable of running our advanced process technologies.

Fab 2. In January 2001, we commenced construction of Fab 2, our new advanced wafer fab adjacent to our current facility in Migdal Haemek. The new fab will operate in geometries of 0.18 micron and below, using advanced materials and advanced CMOS technology from Toshiba and Motorola, and other technologies to be licensed and developed by us. Initial production at the new facility is currently scheduled to commence by mid-2003. In April 2002, we set up the Fab 2 clean room and started equipment installation. The overall clean room area in Fab 2 is approximately 100,000 square feet. When the ramp-up of production is completed, we expect that Fab 2 will have a capacity of up to 33,000 200-mm wafers per month and employ approximately 1,100 people. We currently expect that the total cost of the construction, equipping of the facility and ramp-up of the manufacturing line will be approximately \$1.5 billion, of which approximately \$700 million have been expended through December 31, 2002. The discussion of the financing of the Fab 2 project is incorporated herein by reference to Item 5 and Note 13A to our consolidated financial statements included in this annual report.

The land on which Fab 2 is located is the subject of a Development Agreement with the Israel Lands Authority entered into in November 2000, pursuant to which we will enter into a long-term lease on the land through 2049. In addition, in connection with our future development plans, in 2001 we also entered into agreements for the purchase of rights with respect to two parcels of land located near our facilities in Migdal Haemek. The closing of the transactions is subject to the receipt of the consents and approvals from various regulatory authorities, including that of the Israel Lands Authority. Both parcels of land and our rights thereto will be subject to certain limitations as customary with land leased by the Israel Lands Authority.

During the last three years, we have invested significantly in the purchase of fixed assets, primarily in connection with the construction of Fab 2, technology advancement and capacity expansion program. Capital expenditures for the purchase of plant and equipment were approximately \$209 million, \$336 million and \$64 million, before related Investment Center grants of \$ 37 million \$67 million and \$21 million in 2002, 2001 and 2000, respectively.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

Selected Financial Data

The following selected financial data has been derived from our audited consolidated financial statements for the periods, which have been prepared in accordance with Israeli GAAP. See Note 20 to our annual audited financial statements for a reconciliation of material differences between Israeli GAAP and U.S. GAAP for the years presented. Our audited consolidated financial statements include, in the opinion of management, all adjustments necessary to fairly present the financial position and results of operations of our company for those periods. The financial data set forth below should be read in conjunction with our consolidated financial statements and the notes thereto and the other financial information appearing elsewhere in this annual report.

	<u>Year Ended December 31,</u>				
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(in thousands, except per share data)				
Statement of Operations Data:					
Sales	\$51,801	\$52,372	\$ 104,775	\$ 69,815	\$69,637
Cost of sales	<u>67,022</u>	<u>76,733</u>	<u>88,787</u>	<u>77,033</u>	<u>76,781</u>
Gross profit (loss)	(15,221)	(24,361)	15,988	(7,218)	(7,144)
Research and development	17,031	9,556	8,965	9,238	8,107
Marketing, general and administrative expenses	17,091	14,489	11,428	8,710	8,747
Operating loss	(49,343)	(48,406)	(4,405)	(25,166)	(23,998)
Financing income (Expense), net	(2,104)	1,465	1,394	2,277	2,741
Other income (expense), net	45	<u>8,419</u>	<u>(478)</u>	<u>17</u>	<u>13</u>
Income (loss) before income tax expense (benefit)	(51,402)	(38,522)	(3,489)	(22,872)	(21,244)
Income tax expense (benefit)	—	—	500	<u>(2,405)</u>	<u>(5,700)</u>
Net income (loss)	<u>(51,402)</u>	\$(38,522)	\$ (3,989)	\$ (20,467)	\$ (15,544)
Basic loss per ordinary share	<u>(1.63)</u>	<u>\$(1.92)</u>	<u>\$ (0.26)</u>	<u>\$ (1.54)</u>	<u>\$ (1.18)</u>
Weighted average number of ordinary shares outstanding	<u>31,523</u>	<u>20,020</u>	<u>13,676</u>	<u>13,156</u>	<u>13,137</u>

	<u>As of December 31,</u>				
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(in thousands)				
Balance Sheet Data:					
Working capital	\$ 21,927	\$ (16,335)	\$ 28,635	\$ 56,001	\$ 66,037
Total assets	\$ 716,261	\$ 472,054	\$ 179,298	\$ 155,211	\$ 180,047
Long-term debt	\$ 253,000	\$ 115,000	\$ 12,064	\$ 12,106	\$ 12,127
Shareholders' equity	\$ 298,334	\$ 252,805	\$ 134,648	\$ 122,121	\$ 143,325

Overview and Trend Information

The following discussion should be read in conjunction with the selected financial data included above and our consolidated financial statements and the related notes thereto included in this annual report and incorporated herein by reference.

We operated at a loss in 2002 due primarily to a gross loss attributable to reduced utilization and sales related to Fab 1 operations and non-capitalized expenses related to the Fab 2 project. Since the last quarter of 2000, we have experienced a dramatic slowdown in demand for our products and services, reflecting a general weakening in demand and buildup of inventories in the overall semiconductor market. We expect this weakness to continue through at least mid-2003. We expect to operate at a loss in 2003 and 2004 due to continued underutilization of Fab 1 and non-capitalized costs related to Fab 2 in the beginning of 2003, and expected low volume and the commencement of depreciation and amortization of Fab 2 assets in the second half of 2003. The world economy and the semiconductor industry have also been negatively affected by the terror attacks in the United States and the Iraqi conflict. We do not know how long these negative market effects will continue, or how the conduct of the United States' war on terrorism and the US military action in Iraq will affect the global economy generally and the semiconductor market in particular. We expect demand and general market conditions to improve in the second half of 2003.

The trend within the semiconductor industry is toward ever-smaller features; state-of-the-art fabs are currently using process geometries of 0.18 microns and below. As demand for smaller geometries increases, there is downward pressure on the pricing of larger geometry products and increasing underutilization of fabs which are limited to manufacturing larger geometry products, which results in less profitability for manufacturers of larger geometry products. Our current facility, Fab 1, is limited to geometries of 0.35 microns and above. Since we are currently unable to manufacture at geometries of below 0.35 microns, our results of operations have recently been adversely affected as a result of reduced pricing of larger geometry wafer products and the decrease in worldwide demand for semiconductor products. Fab 2 will operate at geometries of 0.18 microns and below. We must successfully complete ramp up of production in Fab 2, the timely introduction of state-of-the art process technologies and cultivate customer orders if we are to successfully compete over the long term.

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

Critical Accounting Policies

Capitalizable Costs. In accordance with generally accepted accounting principles, we capitalize most of our costs relating to the establishment of Fab 2, primarily for property and equipment and other assets. We do, however, incur expenses in connection with the establishment of Fab 2, which are not capitalizable. Capitalizable Fab 2 costs include only incremental direct costs that are identifiable with and related to these assets and that are incurred prior to their initial operation. Directly identifiable costs include incremental direct

costs associated with acquiring, constructing, establishing, installing, integrating and transferring property and equipment and the technology to be implemented in Fab 2 and costs directly related to pre-production test runs of these assets that are necessary to get them ready for their intended use. These costs include interest on long-term debt and convertible debentures and payroll and payroll-related costs of employees who devote time and are dedicated solely to the acquiring, constructing, establishing, installing, integrating and transferring of property and equipment and the technology to be implemented in Fab 2. Allocation of capitalizable direct costs is based on management's estimates and methodologies including time sheet inputs. Under different assumptions, the classification of these costs may be different, which may significantly affect our financial position and results of operations. The effect, if any, under Israeli GAAP and US GAAP would be similar.

Revenue Recognition. In accordance with generally accepted accounting principles, our revenues are recognized upon shipment or as services are rendered when title has been transferred, collectibility is reasonably assured and acceptance criteria are satisfied, based on performing electronic, functional and quality tests on the products prior to shipment and customer on-site testing. Such testing reliably demonstrates that the products meet all of the specified criteria prior to formal customer acceptance, and that product performance upon customer on-site testing can reasonably be expected to conform to the specified acceptance provisions. Prior to commencement of production by us, we and our customers, at their sites, test and pre-approve the prototype on the basis of which specifications and features the ordered products will be produced. Our revenue recognition policy is significant because our revenues are a key component of our results of operations. We follow very specific and detailed guidelines in measuring revenue recognition, however an accrual for estimated returns, which is computed primarily on the basis of historical experience, is recorded. Changes in assumptions for determining the accrual for returns, or failure to meet our customers' acceptance criteria prior to shipment, may affect the timing of our revenue recognition, and cause our results of operating to vary from quarter to quarter. Accordingly, our financial position and results of operations may be affected. That effect, if any, under Israeli GAAP and US GAAP would be similar.

Depreciation and Amortization of Fab 2 Assets. We expect that the Fab 2 property and equipment and the 0.18 technology will be ready for their intended use by mid-2003, at which time their depreciation and amortization, based on the straight-line method, shall commence. Currently we estimate that the expected economic life of the Fab 2 assets will be as follows: (i) prepaid perpetual land lease and buildings – 14 to 25 years; (ii) machinery and equipment – 5 years; and (iii) the 0.18 technology – 4 years, while amortization shall phase in commencing on the dates on which each of the Fab 2 manufacturing lines is ready for use. Accordingly, we expect that the depreciation and amortization expense relating to Fab 2 facilities, during each quarter following commencement of its operations, will be approximately \$30 million. Changes in our estimations regarding Fab 2 assets' expected economic life or a change in the dates on which each of the Fab 2 manufacturing lines is ready for use, might significantly affect our depreciation and amortization expenses. That effect, if any, under Israeli GAAP and US GAAP would be similar.

Impairment of Assets. In January 2003, the Israeli Accounting Standards Board

issued Standard No.15, "Impairment of Assets", which is effective for financial statements for reporting periods commencing January 1, 2003 or thereafter. This Standard addresses the accounting treatment and presentation of impairment of assets, and establishes procedures to be implemented in order to ensure that assets are not presented in amounts exceeding their recoverable value. Though according to US GAAP, e.g. FASB 144 and FASB 142, recoverability tests are performed based on undiscounted expected cash flows, Standard No. 15 indicates that an asset's recoverable value is the higher of the asset's net selling price and the asset's value in use, the latter being equal to the asset's discounted expected cash flows. While we estimate that the adoption of the provisions of Standard No. 15 as of December 31, 2002, would not have had a material effect on our financial position and results of operations as of such date, the use of different assumptions with respect to the expected cash flows from our assets and other economic variables, primarily the discount rate, may lead to different conclusions regarding the recoverability of our assets' carrying values and to the potential need to record an impairment loss for our long-lived assets.

Results of Operations

The following table sets forth certain statement of operations data as a percentage of sales for the years indicated.

	<u>Year Ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Statement of Operations Data:			
Sales	100.00%	100.0%	100.0%
Cost of sales	<u>129.4</u>	<u>146.5</u>	<u>84.7</u>
Gross profit (loss)	(29.4)	(46.5)	15.3
Research and development expenses, net.....	32.8	18.2	8.6
Marketing, general and administrative expenses	<u>33.0</u>	<u>27.7</u>	<u>10.9</u>
Operating loss	(95.2)	(92.4)	(4.2)
Financing income(expense), net.....	(4.0)	2.8	1.3
Other income (expense).....	<u>0</u>	<u>16</u>	<u>(0.4)</u>
Loss before income tax benefit (expense)	(99.2)	(73.6)	(3.3)
Income tax benefit (expense)	-----	=	<u>(0.5)</u>
Loss	<u>(99.2)%</u>	<u>(73.6)%</u>	<u>(3.8)%</u>

Sales. Sales in 2002 decreased by 1.0% to \$51.8 million from \$52.4 million in 2001 compared to a 50% decrease from \$104.8 million in 2000. The 1% decrease in 2002 is attributable to 10% lower wafer shipments as well as a reduction of 9% in the average price per wafer as a result of weakening demand in the semiconductor industry that was offset by \$8 million in revenue associated with our joint development agreement with Matsushita Electronic Inc. for the development of 0.18 micron embedded *microFLASH* technology. In 2001, the 50% decrease was primarily attributable to 52.8% lower wafer shipments compared to 2000 as a result of weakening demand in the semiconductor industry.

Cost of Sales. Cost of sales in 2002 was \$67.0 million compared with \$76.7 million in 2001 and \$88.8 million in 2000. The decrease in cost of sales was attributable to cost

savings activities that were implemented in Fab 1, offset by fixed manufacturing costs and uncapitalized expenses related to the establishment of Fab 2. The decrease in 2001 was primarily attributable to the lower utilization of the facility. Due to our high level of fixed manufacturing costs, we have not been able to reduce our cost of sales in proportion to the reduction in sales.

Gross Profit (Loss). Gross loss in 2002 was \$15.2 million compared with a gross loss of \$24.4 million in 2001 and a gross profit of \$16.0 million in 2000. Our gross loss is due to our reduced production sales and our higher uncapitalized expenses related to the establishment of Fab 2. Our gross margin was better in 2002 than in 2001 primarily due to cost savings activities in Fab 1 and the gross profit from joint development with Matsushita Electronic Inc. Our gross loss in 2001 was primarily attributable to our reduced sales and higher level of fixed costs.

Research and Development. Research and development expenses in 2002 increased to \$17.0 million from \$9.6 million in 2001 and \$9.0 million in 2000. The increase both in 2002 and 2001 was primarily due to increased research and development activities for technologies to be implemented in Fab 2. Research and development expenses are reflected net of participation grants received from the Israeli government.

Marketing, General and Administrative. Marketing, general and administrative expenses in 2002 increased to \$17.1 million from \$14.5 million in 2001 and \$11.4 million in 2000 primarily due to deployment for Fab 2 activities and higher marketing efforts among new and potential Fab 2 customers during 2002 and 2001.

Operating Loss. Operating loss in 2002 was \$49.3 million compared to \$48.4 million in 2001 and \$4.4 million in 2000. The increased operating loss in 2002 as compared to 2001 was due to higher research and development expenses as well as marketing expenses in connection with Fab 2. The increased operating loss in 2001 as compared to 2000 was primarily attributable to the increased gross loss and non-capitalized expenses incurred in connection with Fab 2.

Financing Income (Expenses), Net. Financing expenses in 2002 was \$2.1 million compared with \$1.5 million financing income in 2001 and \$1.4 million financing income in 2000. Our financing costs in 2002 and 2001, most of which were not included in results of operations but were capitalized to Fab 2 assets during the establishment of Fab 2, were comprised primarily of bank loans interest as well as expenses in 2002 related to convertible debentures. While in 2001 non-capitalized financial expenses were off-set by financial income, primarily bank interest on proceeds from our Fab 2 investors, resulting in net financial income in 2002 financial expenses exceeded financial income due to the decrease in cash and cash equivalents. For further details relating to the components of our financial income and expenses, see Note 16 to our consolidated financial statement, which is incorporated herein by reference.

Other Income (Expenses), Net. Other income, net, in 2002 were \$0.045 million compared to other income, net, of \$8.4 million in 2001 and other expense of \$0.5 million in 2000 due to the sale of our shareholding in Virage Logic Corp. in 2001 for a capital gain of \$9.5 million offset by a \$1.1 million write off of our investment in Azalea Microelectronics Corp. in 2001.

Taxes on Income. Due to our recent history of operating losses, in 2002, 2001 and 2000, we established valuation allowances against all deferred tax assets, except to the extent of existing deferred tax liabilities. We therefore recognized no income tax benefit attributable to our net operating loss.

Loss. Our loss in 2002 was \$51.4 million compared to a loss of \$38.5 million in 2001 and \$4.0 million in 2000. The increased loss was primarily attributable to the increase in our non-capitalized expenses, research, development and marketing expenses related to Fab 2 and in 2001, our increased loss was also attributable to lower sales.

Liquidity and Capital Resources

At December 31, 2002, we had an aggregate of \$69.7 million in cash, cash equivalents, and short-term and long-term interest-bearing deposits, of which \$51.3 million was contractually restricted for Fab 2 use only (other than \$11.9 million which may generally only be used to redeem and pay interest on our convertible debentures and which may also be used for Fab 2 subject to the restrictions set forth in the Fab 2 credit facility), compared to \$33.2 million as of December 31, 2001, of which \$3.5 million was contractually restricted to use in Fab 2. Our Fab 1 bank agreement includes a covenant that we have at least \$5 million in our bank accounts during the term of our Fab 1 credit facility. During 2002, we generated cash from the following sources: (a) from our financing activities, we raised \$128.0 million from bank loans, net of repayments, \$21.5 million proceeds from sale of securities, net, and \$96.8 million from our issuance of shares, net, and (b) from our investment activities, we received \$40.5 million from Investment Center grants. During 2002, we invested \$239.3 million in construction, equipment and other assets, primarily in connection with our purchase and transfer of technology from Toshiba and construction and equipping of Fab 2. The continuing under-utilization of our existing wafer fabrication facility and Fab 2 non-capitalized costs and operating expenses are expected to result in negative cash flow from operating activities in 2003 with some improvement expected in 2004.

In January 2001, our banks agreed to provide us with a credit facility of up to \$40 million to fund our working capital needs and equipment purchases for Fab 1. As of December 31, 2002, we had drawn down \$30 million of loans under the facility, \$20 million of which bears interest at a rate of Libor plus 1.5 % and is repayable in five years. In May 2002, \$10 million of loans were repaid, and we have also agreed with our banks that the \$10 million comprising the unused portion of the facility will be cancelled. As of December 31, 2002 the remaining loans were \$13 million to be repaid quarterly through March 2006. See also "Fab 2 Agreements" below for a description of our credit facility in connection with Fab 2.

Through 2002, we had sufficient liquidity to permit us to conduct our operations and to carry out the Fab 2 project.

We began 2003 with a cash balance available for Fab 1 activities of \$18.4 million. We expect to have positive cash flow from our Fab 1 operating activities, while we expect to have negative cash flow from our financing and investment activities, primarily due to repayments under our Fab 1 credit facility. We expect to have adequate liquidity for our Fab 1 activities in 2003.

If we conclude the arrangements with our banks and Fab 2 investors, as discussed below in this Item under the section entitled "Fab 2 Agreements," we expect to have adequate liquidity for our Fab 2 activities in 2003. In 2003, we expect to make capital investments of approximately \$250 million and to have negative cash flow from Fab 2 operations of approximately \$85 million. We expect to fund our Fab 2 activities during 2003 from the following sources: (1) Fab 2 wafer partners and equity investors under existing commitments, at least \$44.7 million; (2) additional loans under the Fab 2 credit facility, \$188 million; (3) Investment Center grants, \$44 million; and (4) equity investors, investment activity and additional sales of securities. We cannot assure you that we will be able to obtain funds from these sources as expected, due to existing or potential defaults under our Fab 2 agreements, poor conditions in capital markets and a weak semiconductor market, failure to achieve milestones and other factors, which may affect our ability to raise funds. For additional disclosure of our Fab 2 funding arrangements and risks related to these agreements and our financing of the Fab 2 project, see the disclosure under the caption "Fab 2 Agreements" in this Item and under Item 3. "Risk Factors—Risks Related to the Fab 2 Project". If we do not satisfy our need for funds for Fab 2 or if the timing of the receipt of financing lags behind the timing of expenses, we may from time to time experience lack of liquidity for our Fab 2 activities.

The following table summarizes our material obligations and commitments as of December 31, 2002 to make future payments under contracts to which we are committed:

Payment Due by Period
(US\$ in thousands)

Contractual Obligations	Total	Less than 1 Year	2 Years	3 Years	4 Years	5 Years	After 5 Years
Short term debt and other current liabilities.....	\$ 82,109	\$ 82,109	\$ -	\$ -	\$ -	\$ -	\$ -
Long term debt*	317,336	17,794	24,424	77,080	92,785	80,898	24,355
Convertible debenture*	31,289	1,136	1,129	1,129	7,362	7,126	13,407
Operating leases	1,024	342	270	261	142	9	-
Fab 2 construction & equipment agreements	125,130	120,992	4,138	-	-	-	-
Other long-term liabilities	51,574	3,250	3,250	3,250	3,250	3,250	35,324
Total contractual obligations	\$608,462	\$225,623	\$33,211	\$81,720	\$103,539	\$91,283	\$73,086

***Amount of Commitment Expiration Per Period
(US\$ in thousands)***

Other Commercial Obligations	Total Amounts Committed	Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
Standby letters of credit**	\$ 14,816	\$ 14,816	-	-	-
Guarantees**	103	103	-	-	-
Total commercial commitments...	<u>\$ 14,918</u>	<u>\$ 14,918</u>	<u>-</u>	<u>-</u>	<u>-</u>

* Total amounts include expected interest payments for the presented periods.

** These standby letters of credit and guarantees secure Fab 2 construction and equipment obligations as detailed in the table above.

The tables above do not include other categories of obligations or commitments, such as royalty agreements and short term service agreements for Fab 2. We are unable to reasonably estimate the total amounts to be paid under the terms of these agreements, as the royalties and required services are a function of future sales revenues and the volume of business in Fab 2.

Fab 2 Agreements

In January 2001 we commenced construction of Fab 2, our new advanced wafer fab adjacent to our current facility in Migdal Haemek, Israel. Production at the new facility is expected to commence by mid-2003. We have substantially completed the construction stage, are producing prototypes for our customers, and are at the stage of final qualification of our 0.18 micron process technology. When completed, Fab 2 will employ approximately 1,100 people and will have the capacity to produce up to 33,000 200-mm wafer starts per month. Fab 2 will allow us to offer state-of-the art manufacturing services utilizing a 0.18 micron core process technology and other specialized processes. Ultimately, we anticipate offering process geometries of 0.13 micron copper technology and below. We expect the total cost of the construction, equipping of the facility and ramp-up of the manufacturing line will be approximately \$1.5 billion.

As described below, since 2000, we entered into several important Fab 2 agreements and arrangements with key technology partners, wafer and equity financing partners, the Israeli Investment Center and two leading Israeli banks.

Technology Agreement With Toshiba. In April 2000, we entered into a non-exclusive technology transfer agreement with Toshiba Corporation of Japan, which provides for the transfer to us by Toshiba of the advanced manufacturing processes to be used in Fab 2. In exchange for license and technology fees and royalties, Toshiba agreed to provide us with the process recipes, know-how and patent licenses required for the use of Toshiba's proprietary 0.18 micron and 0.13 micron process technology. We have decided not to purchase Toshiba's 0.13 micron process technology and in September 2002 we purchased 0.13 micron process technology from Motorola, Inc. (as described below) because we believe that Motorola's technology more appropriately matches our technology

plans for Fab 2. Subject to prior termination for cause by Toshiba, our licenses under our agreement with Toshiba are perpetual. Toshiba also agreed to train a group of our engineers and managers in its facilities in Japan and to provide on-site assistance to support the transfer of the technology. Our agreement with Toshiba does not include any non-competition arrangements. Toshiba has invested \$10 million in our equity and acquired 772,667 ordinary shares as part of its technology partnership agreement. We also agreed to reserve a portion of our Fab 2 capacity for Toshiba.

Technology Agreement with Motorola. In September 2002, we entered into a non-exclusive technology transfer agreement with Motorola, Inc., which provides for the transfer to us by Motorola of its 0.13 micron process technology to be used in Fab 2. In exchange for license and technology fees and royalties, Motorola agreed to provide us with the process recipes, know-how and patent licenses required for the use of Motorola's proprietary 0.13 micron process technology. The agreement provides for the cooperation between us and Motorola to further enhance the technology to provide compatibility with the widest range of industry-standard design tools and services. Subject to prior termination for cause by Motorola, our licenses under our technology transfer agreement with Motorola are perpetual. Our agreement with Motorola does not include any non-competition arrangements.

Joint Development Agreement with Matsushita. In June 2002, we entered into an agreement with Matsushita Electronic Inc., for the joint development of 0.18-micron embedded *microFLASH* technology. Matsushita granted to us the non-exclusive right to utilize, on a royalty-free basis, our jointly developed technology, which is based on Matsushita's 0.18 micron process technology, for foundry services or for the manufacture and sale of our own proprietary products. We granted our development partner a royalty-free, non-exclusive license with respect to our *microFLASH* technology for manufacturing semiconductor devices that utilize our jointly developed technology for its own semiconductor business.

License Agreement with DSPG. In January 2002, we licensed from DSP Group, Inc. their Teak® Digital Signal Processing (DSP) core for use with our 0.18 micron process technology. Our royalty-bearing license is generally non-exclusive. Subject to DSP Group's termination of the agreement for cause, the term of our license is through December 31, 2007.

Wafer Partner Agreements. During the second half of 2000, we entered into a series of agreements with four wafer partners: SanDisk Corporation, Alliance Semiconductor, Macronix International, and QuickLogic Corporation. The wafer partners agreed to invest \$250 million in Fab 2; SanDisk, Alliance and Macronix each committed to invest \$75 million and QuickLogic committed to invest \$25 million in exchange for ordinary shares and credits towards the purchase of wafers from Fab 2 under the terms set forth in the agreements. We also agreed to reserve approximately 50% of our Fab 2 capacity for our wafer partners for a 10-year period. In addition, these agreements contain special pricing terms for wafer purchases made by the wafer partners on up to 80% of the Fab 2 wafer fabrication capacity committed to the wafer partners, subject to minimum holdings of our ordinary shares. In May 2002 our shareholders approved amendments to our agreements with our wafer partners relating to their third and fourth milestone payments.

To date, we have received an aggregate of \$213.8 million from our Fab 2 wafer partners through committed investments, \$166.6 million of which has been applied to the purchase of 17,601,842 ordinary shares and \$47.2 million of which has been established as long-term customer advances to be credited against purchases by the wafer partners at a rate of 7.5% through June 2005 with respect to customer advances issued in connection with the third and fourth milestone payments and thereafter all remaining credits are to be utilized at a rate of 15%.

Our wafer partners' remaining committed investment of \$36.63 million is to be made in 2003 in connection with the satisfaction of the fifth Fab 2 milestone. For discussion of the pending amendments to our investment agreements with our wafer partners, see "Pending Amendments to Our Wafer and Equity Partner Agreements" below.

Investment by Israel Corporation Technologies (ICTech) Ltd. and Other Financial Investors. In December 2000, Israel Corporation Technologies (ICTech) Ltd., our current principal shareholder and one of Israel's major holding companies, agreed to invest \$50 million in several closings contemporaneous with the closings with the wafer partners through its wholly-owned subsidiary, ICTech. To date, we have received an aggregate of 42.7 million from ICTech through committed investments, which has been applied to the purchase of 4,855,595 of our ordinary shares. ICTech's final installment of \$7.3 million is to be made in connection with the satisfaction of the fifth milestone.

In February 2001, the Challenge Fund-Etgar II, a Delaware venture capital partnership, agreed to invest \$5 million in our company on substantially the same terms as Israel Corporation Technologies (ICTech) Ltd. To date, we have received an aggregate of \$4.3 million from Challenge through committed investment, which has been applied to the purchase of 480,759 of our ordinary shares. The Challenge Fund's final installment of \$733,000 is to be made in connection with the satisfaction of the fifth milestone.

In May 2002, our shareholders approved amendments to our agreements with our financial investors relating to their third and fourth milestone payments.

As of the date of this annual report, the remaining amount to be invested by our Fab 2 wafer and equity financing partners, as detailed above, in order to satisfy their total committed investment obligations amounting to an aggregate of \$305 million pursuant to the Fab 2 investment agreements is \$44.7 million to be received upon the achievement of the fifth milestone (successful production of 5,000 wafer starts per month for two full consecutive months).

For a discussion of the pending amendments to our investment agreements with our equity partners, see "Pending Amendments to Our Wafer and Equity Partner Agreements," below.

Investment by Ontario Teachers' Pension Plan Board. In July 2002, Ontario Teachers' Pension Plan Board (OTPP), a Canadian institutional investor managing approximately 70 billion Canadian dollars in assets (as of December 31, 2002), agreed to purchase from us for \$15 million 3 million ordinary shares and 1,350,000 warrants with an exercise price of \$7.50 exercisable for four years from the date of issuance. The investment

of OTPP was conditioned upon our raising at least an additional \$15 million by October 31, 2002, which we satisfied through our sale of ordinary shares and warrants pursuant to a distribution of rights to our shareholders and certain employee option holders in September 2002. Pursuant to the share purchase agreement with OTPP, we have agreed to file a registration statement with the SEC and the Israel Securities Authority to register the resale of the shares and warrants issued to OTPP, which we will file after we file this annual report. OTPP has agreed not to sell the shares and warrants purchased in connection with the share purchase agreement until the end of July 2003.

Pending Amendments to Our Wafer and Equity Partner Agreements. In March 2003, we reached an agreement with our major Fab 2 investors, who have agreed to advance a substantial portion of the fifth and final Fab 2 milestone payment prior to our meeting the milestone. Under the terms of the amended fifth milestone payment agreements, SanDisk Corporation, Alliance Semiconductor, Macronix International, Israel Corporation Technologies and The Challenge-Etgar II Fund, will pay \$24.6 million in the aggregate following final approval of these arrangements. No earlier than August 2003, the partners will pay the remainder of the fifth milestone payment if we raise an aggregate of \$22 million additional funds for Fab 2 before the end of 2003.

In consideration for their \$24.6 million payment, our partners will be issued ordinary shares based on a \$2.983 per-share price. For the \$16.4 million remainder of their committed fifth milestone payment, our partners will be issued ordinary shares based on the price per share at which we raise the \$22 million in additional funds for Fab 2. We have also agreed to allow our wafer partners to convert up to an aggregate of \$13.2 million unutilized wafer credits which they may have as of December 31, 2005 into our ordinary shares based on the market price of the ordinary shares at that time. If the wafer partners exercise this right and are issued more than 5% in the aggregate of our shares at that time, we have agreed to offer all of our other shareholders rights to purchase our shares at the same price per share.

This amendment to the investors' investment agreements is subject to the approval of our shareholders, banks and other regulatory bodies and further provides that the Investment Center shall not have informed us that it is not continuing its funding of the Fab 2 project. Subject to the following sentence, this amendment is further subject to the receipt of the consent of our banks (i) to the postponement of the December 31, 2002 deadline by which we were required to have raised \$110 million in equity financing, and (ii) to recognize a portion of the proceeds from the initial aggregate payment of \$24.6 million in satisfaction of our obligation to raise funds. In the event that pending their approval of the terms of this amendment, our banks agree to provide interim funding in the amount of \$33 million and provided that the Investment Center has not informed us that it is not continuing its funding of the Fab 2 project, we are currently discussing with the parties to this amendment the receipt of a commitment to advance to us (i) an aggregate amount of \$13.3 million of the initial \$24.6 million payment following the receipt of such interim funding and shareholder approval of this amendment, and (ii) an additional \$213,000 in the aggregate of their fifth milestone commitments for each \$1 million of interim funding in excess of \$33 million which the banks agree to provide (but no more than \$2.5 million).

Credit Facility. In January 2001, we entered into a credit facility with two leading Israeli banks pursuant to which the banks committed to make available to us up to \$550 million of loans for the Fab 2 project; pursuant to our reduction of the total project cost of Fab 2 through the renegotiation of equipment prices and a change of equipment suppliers, we and our banks have agreed to amend the credit facility such that the total amount of loans committed by the banks has been reduced to \$500 million. The loans may be drawn down through December 2004 and are repayable in quarterly installments either: (i) over three years commencing three years after the date we receive any such draw-down and bearing interest, payable quarterly, at Libor plus 1.55% over six years commencing immediately or (ii) we can repay in quarterly installments over four years commencing two years after the date we receive any such draw down and bearing interest payable quarterly at Libor plus 1.5% over six years commencing immediately. However, as of December 31, 2002 the first option is no longer available to us, unless our banks agree to extend the period beyond that date. As of the date of this annual report, we have drawn \$274 million in loans at Libor plus 1.55%. We also must pay the banks an annual commitment fee of 0.25% of any unused portion of the facility. The banks' obligation to fund the loans is subject to satisfaction of substantially the same milestones as the wafer and equity partners, plus an additional milestone for production capacity, and to additional conditions and covenants, including restrictions on debt, a prohibition on issuance of dividends prior to 2006, limitations on a change of ownership (which generally requires that through January 2004, our three largest wafer partners not sell the shares they purchased in connection with their \$75 million investment in our shares and that Israel Corporation Technologies (ICTech) Ltd. hold at least 4.2 million of our shares during this period, with portions of the shares held by our wafer partners being released from these restrictions through January 2006), and the required maintenance of financial ratios.

As of the date of this annual report, we are required to achieve the following remaining production and capacity milestones under the credit facility agreement:

- Successful production at Fab 2 of 5,000 wafer starts per month for two full consecutive months, which was to have been achieved by November 2002 (and which may be delayed by a seven and one half month grace period); and.
- Production capacity of 15,000 wafer starts per month by September 2003 (which may be delayed by a seven and one half month grace period).
- Production capacity of 33,000 wafer starts per month by June 30, 2005.

We do not expect to meet our production capacity milestones at Fab 2 by their prescribed completion dates.

As of the date of this annual report, our Fab 2 credit facility agreement requires us to raise the following minimum amounts from the sale of equity, wafer pre-payment agreements or dispositions of our holdings in Saifun, Azalea Semiconductor Corp. and Chip Express Corporation: \$110 million by the end of December 2002 (of which we have raised \$86.2 million to date) and an additional \$34 million by the end of December 2003.

We are currently engaged in negotiations with our banks in connection with our financing obligations. While in the past we have been successful in procuring from our banks extensions to meet our additional financing obligations beyond the dates set forth in the credit facility agreement, we cannot assure you that our banks will agree to waive any failure by us to observe covenants or satisfy conditions under the facility agreement, some of which are not in our control, or that we will be able to refinance our indebtedness if they do not. We are in the process of retaining a world leading first-tier consulting firm to review our Fab 2 plan in light of the changes that have occurred in the semiconductor market and world economy, and the capital expenditures we have made and expect to continue to make. We expect that our banks will look to the results of the report of the consultant we are retaining in evaluating the terms under which the banks will continue to fund the Fab 2 project.

If, as a result of any default, our banks were to accelerate our obligations, we would be obligated to immediately repay all loans made by the banks plus penalties, and the banks would be entitled to exercise the remedies available to them under the credit facility agreement, including enforcement of their lien against all our assets. An event of default under the credit facility and the subsequent enforcement by the banks of their remedies under the credit facility may allow our wafer partners, financial investors and the Investment Center of the State of Israel to declare a breach of our obligations to them and, based on our current available cash position, would jeopardize the Fab 2 project and our ability to continue our operations even in Fab 1.

In January 2001 we also issued the banks warrants to purchase an aggregate of 400,000 ordinary shares at a purchase price of \$6.20 per share. The bank warrants are exercisable until January 2006.

Investment Center Grants. In December 2000 the Israeli government's Investment Center approved an investment program in connection with Fab 2. The approval certificate provides for government grants at a rate of 20% of qualified investments up to \$1.25 billion, for total grants of up to \$250 million, subject to customary conditions, including a requirement that approximately \$400 million of our Fab 2 funding consist of paid-in-capital. The approval certificate also provides for a tax holiday on all taxable income related to Fab 2 for the first two years of profitable operations. As of December 31, 2002, we have received approximately \$84.2 million in grants from the Investment Center, and raised \$261.3 million as paid in capital towards the \$400 million.

Due to later than planned commencement of construction of Fab 2 and prevailing market conditions, through 2005. Israeli law limits the ability of the investment center to extend the five-year investment limitation. We have notified the Investment Center of our revised investment schedule and it is currently being evaluated by the investment center. We have also informed the investment center of our reduced rate of annual investments and our lower than projected expectations for Fab 2 sales. While we have always ultimately been successful in concluding arrangements with the investment center, we cannot assure you that we will be successful in reaching arrangements with the investment center with respect to the remaining portion of our grants, which may result in the cancellation of all or a portion of our grants. The total funding for Fab 2 committed by our equity and wafer partners, the Investment Center and our banks is approximately \$1.082 billion. We expect

to fund the balance of the \$1.5 billion anticipated cost to complete the Fab 2 project from some or all of the following sources: cash flow from Fab 1 and Fab 2 operations (if they will generate positive cash flow), proceeds from the sale of shares of companies in which we own equity, additional investment from one or more equity or wafer partners and/or the sale of our ordinary shares or debt convertible into ordinary shares in a private or public offering of equity, disposition of certain of our assets, and through the lease of some of our specialized semiconductor fabrication equipment. In addition, our Fab 2 business plan assumes our receipt of additional government grants for investments in Fab 2 in excess of \$1.25 billion; however, our government grants are currently limited to \$250 million, and there is no assurance that we will be entitled in the future to any additional grants. We have registered liens in favor of the banks on substantially all of our present and future assets. The agreements with our banks restrict our ability to place liens on our assets (other than to the State of Israel in respect of investment grants) without the prior consent of the banks.

Sale of Units. In January 2002 we completed a sale of Units in Israel, resulting in initial gross proceeds of approximately \$23.2 million. Costs associated with the offer and sale of the Units were approximately \$1.7 million. Each of the 552,899 Units sold was composed of 200 convertible debentures, four Options (Series 1) exercisable to purchase ordinary shares and one Option (Series A) exercisable to purchase 100 convertible debentures. Each debenture is NIS 1 in principal amount, and is adjusted to reflect increases in the Israeli Consumer Price Index and bears interest at a rate of 4.7% per annum, payable yearly commencing January 20, 2003. Principal is payable in four installments in January of 2006 through 2009. Prior to December 31, 2008, the debentures are convertible into ordinary shares at a conversion rate of one ordinary share per NIS 41 principal amount of debentures. The debentures are unsecured and are subordinated to the rights of the banks under our credit facility agreement. Each Option (Series A) was exercisable for 100 convertible debentures prior to March 20, 2002 for an exercise price of NIS 85. All of the Options (Series A) have fully expired without being exercised. Each Option (Series 1) is exercisable into one ordinary share prior to January 20, 2006 for an exercise price of NIS 39, linked to the Israeli Consumer Price Index. The debentures and options have been listed to trade only on the Tel Aviv Stock Exchange; any ordinary share issued upon conversion of debentures or exercise of options will be traded on both the Tel Aviv Stock Exchange and NASDAQ. As of December 31, 2002, we had NIS 110,579,800 in convertible debentures and 2,211,596 Options (Series 1) were outstanding.

Rights Offering. In September 2002 we distributed transferable rights to our shareholders and certain of our employees to purchase up to an aggregate of 6,858,469 of our ordinary shares and 3,086,311 warrants to purchase our ordinary shares. One right was distributed for each 4.94 ordinary shares or employee options that were held on the record date by our shareholders and employees. Each full right entitled our shareholders and employees to purchase, at a subscription price of \$5.00, one ordinary share and 0.45 of a warrant. Each whole warrant is exercisable into one ordinary share, at an exercise price of \$7.50. The rights were exercisable until October 23, 2002. The rights offering resulted in initial gross proceeds of approximately \$20.5 million. Costs associated with the offer and sale of the rights were approximately \$0.8 million. The ordinary shares issuable upon exercise of the rights have been listed to trade on the NASDAQ-National Market and the Tel Aviv Stock Exchange; all warrants issued in connection with the rights offering are

exercisable until October 31, 2006 and have been listed to trade on the Tel Aviv Stock Exchange and NASDAQ SmallCap Market.

Research and Development, Patents and Licenses

Our research and development activities have related primarily to our process development and microFLASH module design efforts, and have been sponsored and funded by us with some participation by the Israeli government. Research and development expenses for the years ended December 31, 2002, 2001 and 2000 were \$17 million, \$9.6 million and \$9.0 million net of government participation of \$1.2 million, \$1.4 million and \$1.3 million, respectively. We have also incurred costs in connection with the transfer of Toshiba and Motorola technology for use in Fab 2, some of which will be amortized over the estimated life of the technology when Fab 2 operations begin (see also in this Item “Critical Accounting Policies – Depreciation and Amortization of Fab 2 Assets).

Impact of Inflation and Currency Fluctuations

The dollar cost of our operations in Israel is influenced by the timing of any increase in the rate of inflation in Israel and the extent to which such increase is not offset by the devaluation of the NIS in relation to the dollar. During 2002, the NIS was devalued against the dollar by 7.3%, while the consumer price index in Israel increased by 6.5%.

We believe that the rate of inflation in Israel has had a minor effect on our business to date. However, our dollar costs in Israel will increase if inflation in Israel exceeds the devaluation of the NIS against the dollar or if the timing of such devaluation lags behind inflation in Israel.

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

Our borrowings, including the loans contemplated under our Fab 2 credit facility, provide for interest based on a floating Libor rate, and we are therefore subject to exposure to interest rate fluctuations. 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 which may increase the cost of our activities, particularly our construction and equipping of Fab 2.

The quantitative and qualitative disclosures about market risk in Item 11 of this report are incorporated herein by reference.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

Directors and Senior Management

Set forth below is information regarding our directors and the members of our administrative, supervisory or management bodies.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Idan Ofer.....	49	Chairman of the Board (through June 1, 2003) and Director
Carmel Vernia.	50	Chairman of the Board and Director and Acting Chief Executive Officer (pending election by the General Meeting of Shareholders)
Dr. Rafael M. Levin.....	55	Co-Chief Executive Officer (through June 1, 2003)
Dr. Yoav Nissan-Cohen.....	53	Co-Chief Executive Officer (through June 1, 2003) and Director (through March 2003)
Ehud Hillman.....	50	Vice Chairman, Director
Dr. Eli Harari	58	Director
Miin Wu.....	56	Director
N.D. Reddy.....	64	Director
Hans Rohrer	53	Outside Director
Zehava Simon.....	45	Outside Director
Amir Harel.....	41	Vice President and Chief Financial Officer
Harold Blomquist	50	Senior Vice President of Business Operations for Tower Semiconductor Ltd., Chief Executive Officer, Tower Semiconductor USA
Dr. Itzhak Edrei	44	Vice President of Research and Development
Danny Hacoheh	46	Vice President of Sales Europe, Asia and Japan
Erez Taoz.....	48	Vice President, Fab 2 General Manager
Eli Lazar	52	Vice President of Human Resources, Logistics and Information Systems
Ron Niv.....	51	Senior Director
Aviram Matosevich	44	Vice President of Customer Engineering and QAR
Sergio Kusevitzky	45	Vice President of IP and Design Services
Rafi Mor.....	39	Senior Director, Fab 1 Manager

Doron Simon.....	37	President, Tower Semiconductor USA
Ishai Naveh (Nachumovsky) .	45	Vice President of Technology, Tower Semiconductor USA

Idan Ofer joined our Board of Directors in June 1999, and was appointed Chairman of the Board in January 2000 and elected as Chairman of the Board at the Annual Meeting of Shareholders in November 2000. Mr. Ofer serves on the Stock Option and Compensation Committee. Mr. Ofer has served as Chairman of the Board of Directors of Israel Corp., our current principal shareholder, since April 1999. Mr. Ofer also serves as a director of several public subsidiaries of Israel Corp. In addition to his positions within Israel Corp., Mr. Ofer currently serves as Chairman of the Board of Bank Hamizrachi, has held managerial positions with several shipping companies and has served as a director of several companies engaged in venture capital and energy projects. Mr. Ofer has announced his intention to resign as Chairman of our Board of Directors effective June 1, 2003.

Carmel Vernia has been designated by our Audit Committee and Board of Directors to serve as the Chairman of our Board of Directors and acting Chief Executive Officer commencing June 1, 2003, in place of our outgoing Co-Chief Executive Officers. From 2000 to 2002, Mr. Vernia served as the Chief Scientist in the Government of Israel's Ministry of Industry and Trade. Previous to that, he spent 16 years with Comverse Technology in various positions, culminating with his appointment to the dual positions of Chief Operating Officer of Comverse and Chief Executive Officer of Verint Systems. Mr. Vernia earned a master's degree in electrical and computer engineering from the University of California, Davis and a bachelor's degree in electrical engineering from the Technion - Israel Institute of Technology. Mr. Vernia's appointment as Chairman of the Board and Acting Chief Executive Officer is subject to shareholder approval.

Dr. Rafael M. Levin has been our Co-Chief Executive Officer since June 1995. From June 1993 to June 1995, Dr. Levin was our Vice President and Chief Operating Officer and from March 1993 through June 1993, Dr. Levin served as our Operations Manager. From 1984 through March 1993, he was employed by National at the Migdal Haemek facility in various capacities, including Manufacturing Services Manager, Foundry Marketing Manager, and Product Engineering Manager. Dr. Levin tenured his resignation in March 2003, which shall enter into effect as of June 1, 2003.

Dr. Yoav Nissan-Cohen has been our Co-Chief Executive Officer since June 1995 and served as a member of our Board from January 2001 to March 2003. From June 1993 to June 1995, Dr. Nissan-Cohen was Vice President, Technology and Business Development. From March 1993 to June 1993, Dr. Nissan-Cohen was Director, Technology and Business Development. From 1988 through March 1993, Dr. Nissan-Cohen was employed by National at the Migdal Haemek facility in various capacities, including Product Engineering Manager and Quality Assurance Manager. Dr. Nissan-Cohen tenured his resignation in March 2003, which shall enter into effect as of June 1, 2003.

Ehud Hillman served on our Board from October 1996 through August 1999 and was reappointed to the Board in January 2000. In January 2001 Mr. Hillman was appointed Vice Chairman of the Board. Mr. Hillman serves on the Finance Committee, Tender Committee and Fab 1 Steering Committee. Since March 2001 Mr. Hillman has served as Chief Executive Officer of ICTech, the technology holding company of Israel Corp. Mr. Hillman served as Chief Financial Officer of Israel Corp. from September 1996 to 2001 and as Executive Vice President and Chief Financial Officer of Israel Corp. from May 1997 to 2001. Mr. Hillman served as a director of several subsidiaries of Israel Corp., including Israel Chemicals Ltd., ZIM Israel Navigation Company and others. Prior thereto, Mr. Hillman was Vice President and Controller of Clal Industries Ltd. and a director of several companies in the Clal Group.

Dr. Eli Harari joined our Board in January 2001. Dr. Harari serves on the Finance Committee and the Stock Option and Compensation Committee. Dr. Harari, the founder of SanDisk Corporation, has served as President and Chief Executive Officer and as a director of SanDisk since 1988. In 1983, Dr. Harari founded Wafer Scale Integration (WSI), a privately held semiconductor company, acquired by ST Microelectronics in 2000, and served as WSI's President and Chief Executive Officer from 1983 to 1986 and as Chairman and Chief Technical Officer from 1986 to 1988.

Miin Wu joined our Board in January 2001. Mr. Wu serves on the Finance Committee. Mr. Wu serves as President, Chief Executive Officer and an Executive Director of Macronix International. Mr. Wu has been an executive officer of Macronix since its formation in 1989. Mr. Wu received both a B.S. and an M.S. in Electrical Engineering from National Cheng-Kung University in Taiwan as well as an M.S. in Material Science & Engineering from Stanford University.

N.D. Reddy joined our Board in January 2001. Mr. Reddy serves on the Finance Committee and the Audit Committee. Mr. Reddy is the co-founder of Alliance Semiconductor Corporation, a publicly traded semiconductor company, and has served as its Chairman, President and Chief Executive Officer from its inception in February 1985. . Mr. Reddy also served as Alliance's Chief Financial Officer from June 1998 to January 1999. From September 1983 to February 1985, Mr. Reddy served as President and Chief Executive Officer of Modular Semiconductor, Inc., and from 1980 to 1983, he served as manager of Advanced CMOS Technology Development at Synertek, Inc., a subsidiary of Honeywell, Inc. Prior to that time, Mr. Reddy held various research and development and management positions at Four Phase Systems, a subsidiary of Motorola, Inc., Fairchild Semiconductor and RCA Technology Center. He holds an MS degree in Electrical Engineering from North Dakota State University and an MBA from Santa Clara University. Mr. Reddy is also a director of Sage, Inc. and eMagin Corporation, two publicly traded companies.

Zehava Simon joined our Board in September 1999. Ms. Simon serves as Chairperson of our Audit Committee and serves as a member of our Finance Committee, Stock Option and Compensation Committee and Tender Committee. Since 2000, Ms. Simon has served as Vice President of Operations and Israel site manager for BMC Software Israel. From 1998 to 2000, Ms. Simon was the Israel Business Development Manager for Intel. From 1993 to 1998, Ms. Simon served as Intel's Finance and Administration Manager for Israel. Ms. Simon serves as an outside director on our Board for a fixed term which expires in 2004.

Hans Rohrer joined our Board in April 2002. Mr. Rohrer serves as a member of our Audit Committee. Mr. Rohrer has over 25 years of experience in the semiconductor industry. Mr. Rohrer started his career in the semiconductor industry with Texas Instruments and has held various engineering, marketing, sales and general management positions, including Vice President and General Manager, Europe, with National Semiconductor between 1980 and 1998. From 1999 to 2002, Mr. Rohrer served as President of Taiwan Semiconductor Manufacturing Company–Europe (TSMC–Europe).

Amir Harel joined Tower in December 1998 and assumed the office of Vice President and Chief Financial Officer in January 1999. From July 1994 through November 1998, Mr. Harel was Secretary and Chief Financial Officer of Elbit Vision Systems Ltd. From December 1988 through June 1994, Mr. Harel held various finance management positions at Elbit Ltd.

Harold A. Blomquist joined Tower in February 2003 as our Senior Vice President of Business Operations. Mr. Blomquist also serves as Chief Executive Officer of our wholly-owned U.S. subsidiary, Tower Semiconductor USA. Mr. Blomquist serves as a director of Simtek and as a consultant to venture investors and early stage technology companies particularly in the semiconductor and electronic components areas. Before joining us, Mr. Blomquist served in senior positions in the semiconductor industry, including President and CEO of ZMD America, Inc., Senior Vice President of AMI Semiconductor, and in various responsible positions at Texas Instruments, Inmos and General Semiconductor. Mr. Blomquist was granted a BSEE degree from the University of Utah, double-majoring in Business Management and also attended the University of Houston, where he pursued a joint Juris Doctor/MBA course of study.

Dr. Itzhak Edrei was appointed Vice President of Research and Development in August 2001, having served as Director of Research and Development since 1996. From 1994 to 1996 Dr. Edrei served as our Device and Yield Department Manager. Prior to joining Tower, Dr. Edrei was employed by National Semiconductor as Device Section Head.

Danny Hacoheh was appointed Vice President of Sales for Europe, Asia and Japan in 2002, having served as Director thereof since 1996. Prior thereto, Mr. Hacoheh served as Fab1 Expansion Project Manager from 1993 to 1996 and from 1986 to 1993 Mr. Hacoheh was employed by National Semiconductor as Director of Materials and Logistics.

Erez Taoz was appointed Vice President and Fab 2 General Manager in March 2003, having served as VP and Fab 1 general manager since August 2001 and as Director of Fab 1 since 1999. Mr. Taoz joined Tower in 1996 as our Director of Manufacturing. Prior to that time, Mr. Taoz served as Director of Manufacturing at Cyclone Aviation Products.

Eli Lazar was appointed Vice President of Human Resources, Logistics and Information Systems, having served as Director thereof since 1996. Prior thereto, Mr. Lazar had over 15 years of experience as Vice General Manager at the College of Management and as Human Resources Manager at the National Semiconductor Design Center at Hertzliya.

Ron Niv currently serves as a Senior Director after serving as Fab 2 Manager from May 2000 to March 2003. From July 1999 to May 2000, Mr. Niv served as Director of our Design Center at Netanya. From 1996 to 1999, Mr. Niv served as our NVM Technology (EPROM and Flash) Program Manager. Mr. Niv was the Fab 2 Project Manager from 1995 to 1996 and Manufacturing Services Manager from 1993 to 1995.

Aviram Matosevich was appointed Vice President of Customer Engineering and QAR in March 2003, having served as our Director of Customer Support since 2000. From 1996 to 2000 Mr. Matosevich served as the Application Manager in our U.S. office. From 1993 to 1996, Mr. Matosevich served as our Manager of Reliability and Product Engineering. From 1987 to 1993, Mr. Matosevich was employed by National Semiconductor in various engineering and management capacities.

Sergio Kusevitzky was appointed Vice President of IP and Design Services in 2003. Mr. Kusevitzky previously served at Wafer Scale Integration as the General Manager of the Israeli Design Center and was actively involved in the ST Microelectronics acquisition of WSI. Mr. Kusevitzky was a co-founder of Oren Semiconductor in 1994 and served our company in various management positions until 1998. From 1985 through 1994, Mr. Kusevitzky was with Zoran Microelectronics Ltd.

Rafi Mor was appointed Senior Director and Fab 1 Manager in March 2003. From Nov 2000 to March 2003 Mr. Mor served as Senior Director of Process Device & Yield of Fab 1. From 1998 to 2000, Mr. Mor served as Director of Equipment Reliability & Support of Fab 1. Previously, Mr. Mor was employed by National Semiconductor in various engineering and management capacities.

Doron Simon has been President of Tower Semiconductor USA since April 2001. Since 1993, Mr. Simon has served in various capacities, including our Director of Customer Service, Director of our Planning and Turn Key Operations and Director of our World Wide Sales Operations. Prior to 1993, Mr. Simon was employed by National in Migdal Haemek as their Production Control Manager.

Ishai Naveh (Nachumovsky) was appointed Vice President of Technology for Tower Semiconductor USA in October 2002, having served as Director of NVM Technology and Senior Director of Foundry Technologies in Tower Semiconductor LTD since 1997. Mr. Naveh has been employed by Tower since 1993, initially as our Manager of Product Test and Reliability. Mr. Naveh was employed by National in Migdal Haemek from 1984 to 1993 in the areas of Process and Product Engineering.

Compensation

During 2002 we paid to all our directors and senior management as a group an aggregate of \$1.4 million in salaries, fees and bonuses (excluding management service fees. See “Item 7 – Major Shareholders and Related Party Transactions”). The total amount set aside or accrued in 2002 to provide for severance, retirement and similar benefits for such persons was \$0.3 million. No directors received cash compensation other than the annual and meeting fees meeting fees described below. As of December 31, 2002, our directors were granted options to purchase an aggregate of 280,000 ordinary shares at a weighted average exercise price of \$8.48. These options will become exercisable according to various vesting schedules over four years and generally remain exercisable for five years following the vesting date.

During 2002, we granted a total of 135,000 options to purchase ordinary shares to our senior managers as a group (other than Dr. Levin and Dr. Nissan-Cohen – see “Share Ownership” below). These options have a weighted average exercise price of \$5.91 per share and expire between January 2012 and July 2012.

Since October 2001, the directors have foregone their directors’ fees, except for fees required by law to be paid to our outside directors, consisting of NIS 26,000 (approximately \$5,530) annual fee plus NIS 915 (approximately \$195) per meeting. The aggregate amount payable to all the directors with respect to 2002 was approximately \$20,000. The annual and per meeting fees paid to all our directors are adjusted semiannually to reflect changes to the published guidelines in Israel for outside directors.

Board Practices

Our Articles of Association provide that the Board of Directors shall consist of at least five and no more than 11 members. All directors hold office until their successors are elected at the next annual general meeting of shareholders. Pursuant to a shareholders agreement described in “Item 7. Major Shareholders and Related Party Transactions” of this annual report, Israel Corp., SanDisk Corporation, Alliance Semiconductor Corporation and Macronix Corporation have agreed to vote all their respective shares for nominees designated by each shareholder, and for the election of a nominee of Israel Corp. as Chairman of the Board. Our officers are appointed by the Board of Directors and (subject, in certain cases, to employment agreement provisions that require 270 days notice of termination) continue to serve at the discretion of the Board of Directors.

Our Articles of Association provide that any director may, by written notice to us, appoint another person to serve as an alternate director, and may cancel such appointment. Any person, whether or not already a director, may act as an alternate, and the same person

may act as the alternate for several directors. The term of appointment of an alternate director may be for one meeting of the Board of Directors or for a specified period or until notice is given of the cancellation of the appointment.

None of the members of the Board is entitled to receive any severance or similar benefits upon termination of his service with the Board of Directors, other than Dr. Nissan-Cohen, who is entitled to severance as an employee under Israeli law.

Pursuant to Israeli law we are required to appoint two outside directors. These directors must be unaffiliated with us and our principals. Any committee of the Board of Directors which is authorized to exercise any function of the board must include at least one outside director.

Outside directors are to be elected by a majority vote at a shareholders' meeting, provided that such majority includes at least one-third of the shares held by non-controlling shareholders voted at the meeting; or the total number of shares held by non-controlling shareholders voted against the election of the director does not exceed one percent of the aggregate voting rights in the company.

The initial term of an outside director is three years and may be extended for an additional three years. Outside directors may be removed only by the same percentage of shareholders as is required for their election, or by a court, and then only if the outside directors cease to meet the statutory qualifications for their appointment or if they violate their duty of loyalty to the company.

An outside director is entitled to compensation as provided in regulations adopted under the new Companies Law and is otherwise prohibited from receiving any other compensation, directly or indirectly, in connection with service provided as an outside director.

The Companies Law requires public companies to appoint an audit committee. The responsibilities of the audit committee include identifying irregularities in the management of the company's business and approving related party transactions as required by law. An audit committee must consist of at least three directors, including the outside directors of the company. The chairman of the board of directors, any director employed by or otherwise providing services to the company, and a controlling shareholder or any relative of a controlling shareholder, may not be a member of the audit committee.

Under the Companies Law, the board of directors must appoint an internal auditor, recommended by the audit committee. The role of the internal auditor is to examine, among other matters, whether the company's actions comply with the law and orderly business procedure. Under the new Companies Law, the internal auditor may be an employee of the company but not an office holder, or an affiliate, or a relative of an office holder or affiliate, and he may not be the company's independent accountant or its representative.

Ms. Simon, who currently serves as an outside director, was appointed under a predecessor law to a fixed five-year term, which expires in September 2004. Mr. Rohrer, who currently serves as an outsider director, was appointed under the current Companies Law, with an initial three-year term expiring in April 2005. Both Ms. Simon and Mr. Rohrer serve on our Audit Committee.

Mr. Ofer, Dr. Harari and Ms. Simon serve on the Stock Option and Compensation Committee. The committee meets at least once a year. The primary function of our Stock Option and Compensation Committee is to approve our employee compensation policy and determine remuneration and other terms of employment for our officers and senior employee. In setting our remuneration policy, the committee considers a number of factors including:

- the overall employment market environment;
- the basic salaries and benefits available to comparable officers at comparable companies;
- the need to attract and retain officers of an appropriate caliber;
- the need to ensure such executives' commitment to the continued success of our company by means of incentive schemes;
- the performance of the employee; and
- financial and operating results of the Company.

Employees

The following table sets forth for the last three fiscal years, the number of our employees engaged in the specified activities.

	<u>Year Ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Process and Product Engineering, R&D	375	299	183
Manufacturing. Operations.....	94	78	306
Manufacturing Support.....	189	154	191
Administration, Marketing, Finance	99	108	109
Fab 2 Construction & Technology Transfer.....	<u>438</u>	<u>409</u>	<u>142</u>
Total.....	<u>1,195</u>	<u>1,048</u>	<u>931</u>

We also use temporary employees as necessary. During 2002, we used on average approximately 84 temporary employees

Except for an arrangement regarding pension contributions, we have no collective bargaining agreements with any of our employees. However, by administrative order, certain provisions of the collective bargaining agreements between the Histadrut (General Federation of Labor in Israel) and the Coordination Bureau of Economic Organizations, relating primarily to the length of the work day, minimum wages, pension contributions, insurance for work-related accidents, procedures for dismissing employees, determination of severance pay and other conditions of employment are applicable to our employees. In accordance with these provisions, the salaries of our employees are partially indexed to the Consumer Price Index in Israel.

We generally provide our employees with benefits and working conditions beyond the minimum requirements. We consider our relationship with our employees to be satisfactory.

Share Ownership

All of the persons listed above under the caption "Directors and Senior Management" own ordinary shares and/or options to purchase ordinary shares. Such persons (other than Dr. Levin and Dr. Nissan-Cohen) are the beneficial owners of an aggregate of 22,799 shares and options to purchase an aggregate of 1,032,249 ordinary shares at a weighted average exercise price of \$11.03 per share, expiring April 2005 through July 2012. Except as set forth below, none of such persons owns shares and/or options amounting to 1% or more of the outstanding ordinary shares. Dr. Levin is the beneficial owner of options to purchase 411,916 ordinary shares at a weighted average exercise price of \$8.23 per share, expiring April 2005 through May 2011. Dr. Nissan-Cohen is the beneficial owner of options to purchase 411,096 ordinary shares of Tower at a weighted average exercise price of \$8.23 per share, expiring April 2005 through May 2011. Information regarding our share option plans presented in Note 14B to our consolidated financial statements is incorporated herein by reference.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

Major Shareholders

The following table and notes thereto set forth information, as of March 31, 2003, concerning the beneficial ownership (as defined in Rule 13d-3 under the Securities Exchange Act of 1934) and on a diluted basis of ordinary shares by any person who is known to own at least 5% of the ordinary shares of our company. On such date 43,435,532 ordinary shares were issued and outstanding. The voting rights of our major shareholder do not differ from the voting rights of other holders of our ordinary shares. However, certain of our major shareholders are party to a shareholders agreement as a result of which they may be able to exercise control over matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions.

Except as otherwise indicated, all information in the following table has been given based on the agreements with our wafer and equity partners as currently in effect. Notes to the table which give effect to the proposed amended fifth milestone payment are based on

the proposed \$2.983 per share price for the first portion of the payment and an assumed price per share of \$4.00 per share for the second portion. For additional information regarding our agreements with our wafer and equity partners and the proposed amendments, see “Item 5 - Operating and Financial Review and Prospects – Fab 2 Agreements.”

<u>Identity of Person or Group</u>	<u>Amount Owned</u>	<u>Percent of Class⁽¹⁾⁽²⁾</u>	<u>Percent of Class (Diluted)⁽³⁾⁽⁴⁾</u>
Israel Corporation Technologies (ICTech) Ltd. (“ICTech”) ⁽⁵⁾⁽⁶⁾	13,776,753 ⁽⁷⁾	30.72	23.52
SanDisk Corporation ⁽⁶⁾	6,827,961 ⁽⁸⁾	15.46	11.66
Alliance Semiconductor Corporation ⁽⁶⁾	6,791,537 ⁽⁹⁾	15.38	11.60
Macronix International Co. Ltd. ⁽⁶⁾	6,595,795 ⁽¹⁰⁾	14.96	11.26
Ontario Teachers’ Pension Plan Board (“OTPP”)	4,350,000 ⁽¹¹⁾	9.71	7.43

- (1) Assumes the holder’s beneficial ownership of all Ordinary Shares that the holder has a right to purchase within 60 days.
- (2) If the proposed amendments to the fifth milestone payment are approved, percent of class would be as follows: ICTech, 33.14; SanDisk, 20.75; Alliance, 20.67; Macronix, 20.28; and OTTP, 9.71.
- (3) Assumes that all currently outstanding rights to purchase Ordinary Shares have been exercised by all holders.
- (4) If the proposed amendments to the fifth milestone payment are approved percent of class (diluted) would be as follows: ICTech, 22.25; SanDisk, 14.13; Alliance, 14.07; Macronix, 13.79; and OTTP, 6.29.
- (5) On January 31, 2001, Israel Corp. transferred all its beneficial ownership of shares of Tower to ICTech.
- (6) Pursuant to a shareholders agreement among Israel Corp., Alliance Semiconductor Corporation, SanDisk Corporation and Macronix Co. Ltd., each of ICTech, Alliance Semiconductor Corporation, SanDisk Corporation and Macronix Co. Ltd. may be said to have shared voting and dispositive control over 72.38% (or 77.41% when taking into account the additional

shares to be issued pursuant to the amended fifth milestone payment agreement) of the outstanding shares of Tower.

- (7) Based on information provided by ICTech, represents 12,366,430 shares currently owned by ICTech, a minimum of 244,445 shares and a maximum of 586,667 shares issuable pursuant to a Share Purchase Agreement, dated as of December 12, 2000, and 823,656 shares issuable upon the exercise of currently exercisable warrants.
- (8) Based on information provided by SanDisk, represents 6,100,959 shares currently owned by SanDisk, 366,690 shares issuable in connection with the fifth milestone payment (3,312,749 if the proposed amendments to the fifth milestone payment are approved) and 360,312 shares issuable upon the exercise of currently exercisable warrants.
- (9) Based upon information provided by Alliance, represents 6,067,100 shares currently owned by Alliance, 366,690 shares issuable pursuant to a Share Purchase Agreement dated as of August 30, 2000, and 357,747 shares issuable upon the exercise of currently exercisable warrants.
- (10) Based on information provided by Macronix, represents 5,932,105 shares currently owned by Macronix, 366,690 shares issuable pursuant to a Share Purchase Agreement dated as of December 12, 2000, and 297,000 shares issuable upon the exercise of currently exercisable warrants.

- (11) Based on information provided by OTP, represents 3,000,000 shares currently owned by OTP and 1,350,000 shares issuable upon the exercise of currently exercisable warrants issued pursuant to a Share Purchase Agreement dated July 23, 2002.

Pursuant to a shareholders agreement dated as of January 18, 2001, among Israel Corp., Alliance Semiconductor, SanDisk and Macronix, such parties have agreed, among other things, to vote or cause to be voted all their respective shares for the election to the Board of Directors of nominees designated by each party, for nominees recommended by the Board, and for the election of a designee of the Israel Corp. to serve as Chairman of the Board, as well as to vote against the election of any other persons to the Board of Directors. In addition, subject to certain exceptions, each shareholder has agreed to restrictions on transfer of its shares for three years and to maintain a minimum share ownership for five years. The shareholders agreement also provides for certain rights of first refusal.

As of March 19, 2003, there were a total of 36 holders of record of our ordinary shares, of which 25 were registered with addresses in the United States. Such United States holders were, as of such date, the holders of record of approximately 46.7% of the outstanding ordinary shares.

Related Party Transactions

Investment Agreement with ICTech and the Major Wafer Partners. Prior to the consummation of our rights offering in September 2002, we reached an agreement with ICTech, SanDisk Corp., Alliance Semiconductor Corp. and Macronix International Co.,

Ltd. (ICTech and the Major Wafer Partners) pursuant to which, in connection with the rights offering, ICTech invested \$9.2 million, each of SanDisk and Alliance invested \$4 million, and Macronix invested \$3.3 million in consideration for a total of 4,086,038 ordinary shares and warrants to purchase an additional 1,838,715 ordinary shares. In connection with the rights offering, each full right entitled its recipient to purchase, at a subscription price of \$5.00, one ordinary share and 0.45 of a warrant. Each whole warrant is exercisable into one ordinary share, at an exercise price of \$7.50 and may be exercised until October 31, 2006. ICTech and the Major Wafer Partners received certain registration rights and pre-emptive rights. ICTech and the Major Wafer Partners have agreed to refrain from transferring any of the purchased securities for a period of 270 days from their issuance to them. Each of our shareholders and certain employee option holders were given an opportunity to purchase ordinary shares and warrants on the same terms. These agreements were approved by our audit committee, our board of directors and our shareholders.

Amendment to Share Purchase Agreements With Wafer Partners and Equity Partners. On March 31, 2002, we entered into agreements with SanDisk Corp., Alliance Semiconductor Corp., Macronix International Co., Ltd. and with our equity partners, Israel Corporation Technologies (ICTech) Ltd. and the Challenge Fund and on May 29, 2002, we entered into an agreement with QuickLogic Corp., in which these partners committed to make their respective third and fourth Fab 2 milestone payments prior to the achievement of the milestones. In consideration of our partners advancement of the milestone payments, our agreements with all of our wafer and equity partners were modified to issue our wafer partners ordinary shares equivalent to sixty percent of the aggregate amount of the third and fourth milestone payments divided by the lower of the 30-day average trading price of our ordinary shares and \$12.50 per share, and to establish the remaining forty percent of the advanced payments as credits toward future wafer purchases from Fab 2, and the equity partners would be issued ordinary shares equivalent to the aggregate amount of the third and fourth milestone payments divided by the lower of the 30-day average trading price and \$12.50 per share. These agreements were approved by our audit committee, our board of directors and our shareholders.

Amendment to Share Purchase Agreements With Certain Wafer Partners. In November 2001, we amended the share purchase agreements of SanDisk, Alliance and Macronix to provide for the conversion of \$53.7 million wafer purchase credits into our ordinary shares at a price of \$12.75 per share. All other provisions of the share purchase agreements, apart from those detailed in the previous paragraph, remained substantially unchanged. The amendment was approved by our Board of Directors and Audit Committee in September and by our shareholders in November 2001.

Amendment to Share Purchase Agreements With Wafer Partners and Equity Partners. In March 2003, we reached an agreement with our major shareholders, who have now agreed to advance a substantial portion of the fifth and final Fab 2 milestone payments prior to the contractually committed date. Under the terms of the amended fifth milestone payment agreements, SanDisk Corporation, Alliance Semiconductor, Macronix International, Israel Corporation Technologies (ICTech) and The Challenge-Etgar II Fund, will pay \$24.6 million in the aggregate following final approval of these arrangements, which we expect to occur in April 2003, subject to the final amendment to the facility

agreement. No earlier than August 2003, the major shareholders will pay the remainder of the fifth milestone payment if we raise an aggregate of \$22 million, before the end of 2003.

In consideration for this \$24.6 million, the partners will be issued ordinary shares based on a \$2.983 per-share price. For the remainder, the partners will be issued ordinary shares based on the price per share at which we raise the additional funds. We have also agreed to allow our wafer partners to convert up to an aggregate of \$13.2 million unutilized wafer credits which they may have as of December 31, 2005 into our ordinary shares based on the shares market price at that time. If the wafer partners exercise this right and are issued more than 5% in the aggregate of our shares at that time, we will then offer all of its other shareholders rights to purchase its shares at the same price per share. This amendment to the investors' investment agreements is subject to the approval of our shareholders, banks and other regulatory bodies.

Expense Reimbursement Agreement with Israel Corp. In March 2002, we entered into an agreement with Israel Corp., the parent company of Israel Corporation Technologies (ICTech), pursuant to which, Mr. Ehud Hillman, a Director of our company, provides management services in consideration of an annual fee of \$240,000 with payment for services provided as of January 2001. The term of this agreement for one year with automatic renewal for successive one-year periods thereafter, unless prior terminated by one of the parties. Our Audit Committee, Board of Directors and shareholders duly approved this agreement.

Grant of Options to Ehud Hillman. In September 2001, we granted to Ehud Hillman, a member of our Board of Directors and an officer of Israel Corp., options to purchase up to 21,500 ordinary shares at an exercise price of \$10.75 per share. These options vest over two years, one third vesting unconditionally on the date of grant, and one third on vesting on each of the first and the second anniversary of the grant, subject to Mr. Hillman's rendering of services as requested by our Board. All of options granted will remain exercisable for a period of three years from the date of vesting. The grant was approved by the Audit Committee and the Board and was approved by shareholder vote in November 2001.

Grant of Options to Co-CEOs. In May 2001 the Board of Directors granted each of Dr. Nissan-Cohen and Dr. Levin options to purchase up to 100,000 ordinary shares for an exercise price of \$11.81, the market price for the ordinary shares on the date of grant. These options vest over a four-year period and remain exercisable for ten years.

Grant of Options to Directors. During 2001, the Audit Committee, Board of Directors and shareholders approved a stock option plan pursuant to which our Board members will be granted options to purchase up to 400,000 ordinary shares. As of December 2002, 280,000 options to purchase ordinary shares, of which 240,000 options were exercisable at an exercise price of \$8.88 per share, and 40,000 options were exercisable at an exercise price of \$6.08 per share, were outstanding under the plan. These options vest over a four-year period, according to various vesting schedules and are generally not exercisable following the fifth anniversary of their vesting date.

Indemnification Agreements with Directors. In December 2001, we entered into indemnification agreements with the members of our Board of Directors pursuant to which, subject to the limitations set forth in the Israel Companies Law and our Articles of Association, they will be exempt from liability for breaches of the duty of care owed by them to the Company or indemnified for certain costs, expenses and liabilities with respect to events specified in the exemption and indemnification agreements. Such indemnification will be limited to up to 25% of the then current fully paid-in-equity of the Company (in addition to any amounts paid under insurance) with respect to specified events, in each case of indemnification (including all matters connected therewith). The agreements were approved by our shareholders at the general meeting of the shareholders in November 2001 after approval of our Audit Committee and our Board of Directors.

ITEM 8. FINANCIAL INFORMATION

Our consolidated financial statements are incorporated herein by reference to pages F-1 through F-35.

ITEM 9. THE OFFER AND LISTING

Markets and Share Price History

The primary trading market for our ordinary shares is the Nasdaq National Market, where our shares are listed and traded on the under the symbol “TSEM.” The following table sets forth, for the periods indicated, the high and low reported sales prices of the ordinary shares on the Nasdaq National Market:

<u>Period</u>	<u>High (\$)</u>	<u>Low (\$)</u>
March 2003	2.78	2.20
February 2003	3.2	3.20
January 2003	3.4	3.22
December 2002	5.44	3.81
November 2002.....	5.05	3.37
October 2002.....	3.87	3.40
September 2002.....	5.2	3.22
First Quarter 2003	3.40	2.19
Fourth Quarter 2002	5.44	3.20
Third Quarter 2002.....	5.7	3.4
Second Quarter 2002.....	6.69	5.26
First Quarter 2002	8.07	5.34
Fourth Quarter 2001	6.6	4.10
Third Quarter 2001	11.22	5.70

Second Quarter 2001	12.9	7.8
First Quarter 2001	16.75	8.94
2002.....	8.07	3.22
2001	17.125	10.375
2000	43.50	6.125
1999.....	13.75	5.625
1998.....	13.00	5.75

In January 2001, our shares commenced trading on the Tel Aviv Stock Exchange (TASE) in Israel under the symbol “Tower.” The following table sets forth, for the periods indicated, the high and low reported sales prices, in NIS, of the ordinary shares on the Tel Aviv Stock Exchange:

<u>Period</u>	<u>High (NIS)</u>	<u>Low (NIS)</u>
March 2003	13.39	10.63
February 2003	15.68	10.76
January 2003	16.36	15.51
December 2002	24.98	15.79
November 2002.....	23.41	18.24
October 2002.....	19.15	16.14
September 2002.....	24.54	18.83
First Quarter 2002	16.36	10.63
Fourth Quarter 2002	24.98	15.79
Third Quarter 2002.....	27.18	18.83
Second Quarter 2002	33.19	26.02
First Quarter 2002	37.50	24.63

ITEM 10. ADDITIONAL INFORMATION

Articles of Association; Israel Companies Law

Articles of Association

Our shareholders approved the amendment of our Articles of Association (“Articles”) in November 2000. The objective stated in the Articles is to engage in any lawful activity.

We have currently outstanding only one class of equity securities, our ordinary shares, par value NIS 1.00 per share. Holders of ordinary shares have one vote per share, and are entitled to participate equally in the payment of dividends and share distributions and, in the event of a liquidation of the Company, in the distribution of assets after satisfaction of liabilities to creditors. No preferred shares are currently authorized.

Our Articles require that we hold our annual general meeting of shareholders each year no later than 15 months from the last annual meeting, at a time and place determined by the Board of Directors, upon at least 21 days' prior notice to our shareholders. No business may be commenced until a quorum of two or more shareholders holding at least 33% of the voting rights is present in person or by proxy. Shareholders may vote in person or by proxy, and will be required to prove title to their shares as required by the Israeli Companies Law (the "Companies Law") pursuant to procedures established by the Board of Directors. Resolutions regarding the following matters must be passed by an ordinary majority of those voting at the general meeting:

- amendments to our Articles;
- appointment or termination of our auditors;
- appointment and dismissal of directors;
- approval of acts and transactions requiring general meeting approval under the Companies Law;
- increase or reduction of authorized share capital or the rights of shareholders or a class of shareholders;
- any merger as provided in section 320 of the Companies Law; and
- the exercise of the Board of Directors' powers by general meeting, if the Board of Directors is unable to exercise its powers and the exercise of any of its powers is essential for Tower's proper management, as provided in section 52(a) of the Companies Law.

A special meeting may be convened by request of two directors or by written request of one or more shareholders holding at least 5% of our issued share capital and 1% of the voting rights or one or more shareholders holding at least 5% of the voting rights. Shareholders requesting a special meeting must submit their proposed resolution with their request. Within 21 days of receipt of the request, the Board must convene a special meeting and send out notices setting forth the date, time and place of the meeting. Such notice must be given at least 21 days but not more than 35 days prior to the special meeting.

The Companies Law

We are subject to the provisions of new Israeli Companies Law, which became effective on February 1, 2000. The Companies Law codifies the fiduciary duties that "office holders," including directors and executive officers, owe to a company. An office holder, as defined in the Companies Law, is a director, general manager, chief business manager, deputy general manager, vice general manager, executive vice president, vice president, another manager directly subordinate to the managing director or any other person assuming the responsibilities of any of the forgoing positions without regard to such person's title. Each person listed in the table in "Item 6. Directors, Senior Management and Employees" above is an office holder. Under the Companies Law, all arrangements as to compensation of office holders who are not directors require approval of the board of directors or a committee thereof. With the exception of compensation to outside directors in an amount specified in the regulations discussed above, arrangements regarding the compensation of directors also require audit committee and shareholder approval.

The Companies Law requires an office holder to promptly disclose any personal interest that he or she may have and all related material information known to him or her, in connection with any existing or proposed transaction by the company. In addition, if the transaction is an extraordinary transaction, the office holder must also disclose any personal interest held by the office holder's spouse, siblings, parents, grandparents, descendants, spouse's descendants and the spouses of any of the foregoing, or by any corporation in which the office holder is a 5% or greater shareholder, holder of 5% or more of the voting power, director or general manager or in which he or she has the right to appoint at least one director or the general manager. An extraordinary transaction is defined as a transaction not in the ordinary course of business, not on market terms, or that is likely to have a material impact on the company's profitability, assets or liabilities.

In the case of a transaction that is not an extraordinary transaction, after the office holder complies with the above disclosure requirements, only board approval is required unless the articles of association of the company provide otherwise. The transaction must not be adverse to the company's interest. If the transaction is an extraordinary transaction, then, in addition to any approval required by the Articles of Association, it also must be approved first by the audit committee and then by the board of directors, and, in specified circumstances, by a meeting of the shareholders. An office holder who has a personal interest in a matter that is considered at a meeting of the board of directors or the audit committee may not be present at this meeting or vote on this matter.

The Companies Law applies the same disclosure requirements to a controlling shareholder of a public company, which is defined as a shareholder who has the ability to direct the activities of a company, other than if this power derives solely from the shareholder's position on the board of directors or any other position with the company and includes a shareholder that holds 25% or more of the voting rights if no other shareholder owns more than 50% of the voting rights in the company. Extraordinary transactions with a controlling shareholder or in which a controlling shareholder has a personal interest, and agreements relating to employment and compensation terms of controlling shareholders require the approval of the audit committee, the board of directors and the shareholders of the company. The shareholder approval must either include at least one-third of the shares held by disinterested shareholders who are present, in person or by proxy, at the meeting, or, alternatively, the total shareholdings of the disinterested shareholders who vote against the transaction must not represent more than one percent of the voting rights in the company.

In addition, a private placement of securities that will increase the relative holdings of a shareholder that holds five percent or more of the company's outstanding share capital, assuming the exercise by such person of all of the convertible securities into shares held by that person, or that will cause any person to become, a holder of more than five percent of the company's outstanding share capital, requires approval by the board of directors and the shareholders of the company. However, subject to certain exceptions, shareholder approval will not be required if the aggregate number of shares issued pursuant to such private placement, assuming the exercise of all of the convertible securities into shares being sold in such a private placement, comprises less than twenty percent of the voting rights in a company prior to the consummation of the private placement.

Under the Companies Law, a shareholder has a duty to act in good faith towards the company and other shareholders and refrain from abusing his power in the company, including, among other things, voting in the general meeting of shareholders on the following matters:

- any amendment to the Articles of Association;
- an increase of the company's authorized share capital;
- a merger; or
- approval of interested party transactions that require shareholder approval.

In addition, any controlling shareholder, any shareholder who knows that it possesses power to determine the outcome of a shareholder vote and any shareholder who has the power to appoint or prevent the appointment office holder in the company is under a duty to act with fairness towards the company. The Companies Law does not describe the substance of this duty. The Companies Law requires that specified types of transactions, actions and arrangements be approved as provided for in a company's articles of association and in some circumstances by the audit committee, by the board of directors and by the shareholders. In general, the vote required by the audit committee and the board of directors for approval of these matters, in each case, is a majority of the disinterested directors participating in a duly convened meeting.

Material Contracts

Fab 2 Agreements. During 2000 and through 2002, we entered into several important Fab 2 agreements and arrangements with a key technology partner, wafer and equity financing partners, the Israeli Investment Center and two leading Israeli banks. Discussions of these agreements are incorporated herein by reference to the discussion under the caption "Fab 2 Agreements" in "Item 5. Operating and Financial Review and Prospects" of this annual report and to Note 13 to the consolidated financial statements included in this annual report.

0.18-Micron Embedded microFLASH Technology Joint Development Agreement. In June 2002, we entered into an agreement with Matsushita Electronic Inc., a Japanese semiconductor manufacturer for the joint development of 0.18-micron embedded *microFLASH* technology. Our development partner granted to us a royalty-free, non-exclusive license to its intellectual property with respect to its 0.18 micron process technology for manufacturing semiconductor devices that utilize our jointly developed technology in order to provide semiconductor foundry services or for our own semiconductor business. We granted our development partner a royalty-free, non-exclusive license with respect to our *microFlash* technology for manufacturing semiconductor devices that utilize our jointly developed technology for its own semiconductor business.

Technology Agreement with Motorola. In September 2002, we entered into a non-exclusive technology transfer agreement with Motorola, Inc., which provides for the transfer to us by Motorola of its 0.13 micron process technology to be used in Fab 2. In exchange for license and technology fees and royalties, Motorola agreed to provide us with

the process recipes, know-how and patent licenses required for the use of Motorola's proprietary 0.13 micron process technology. The agreement provides for the cooperation between us and Motorola to further enhance the technology to provide compatibility with the widest range of industry-standard design tools and services. Subject to prior termination for cause by Motorola, our licenses under the technology transfer agreement with Motorola are perpetual. Our agreement with Motorola does not include any non-competition arrangements.

Exchange Controls

Under Israeli law, non-residents of Israel who purchase ordinary shares with certain non-Israeli currencies (including dollars) may freely repatriate in such non-Israeli currencies all amounts received in Israeli currency in respect of the ordinary shares, whether as a dividend, as a liquidating distribution, or as proceeds from any sale in Israel of the ordinary shares, provided in each case that any applicable Israeli income tax is paid or withheld on such amounts. The conversion into the non-Israeli currency must be made the rate of exchange prevailing at the time of conversion.

Under Israeli law and our company's Memorandum and Articles of Association both residents and non-residents of Israel may freely hold, vote and trade ordinary shares.

Taxation

A. Israeli Capital Gains Tax

Until the end of the year 2002, capital gains from the sale of our securities were generally exempt from Israeli Capital Gains Tax. This exemption did not apply to a shareholder whose taxable income is determined pursuant to the Israeli Income Tax Law (Inflationary Adjustments), 1985, or to a person whose gains from selling or otherwise disposing of our securities are deemed to be business income.

As a result of the recent tax reform legislation in Israel, gains from the sale of our ordinary shares and options to purchase our ordinary shares derived from January 1, 2003 and on will in general be liable to capital gains tax of up to 15% and gains from the sale of our convertible debentures derived from January 1, 2004 and on will in general be liable to capital gains tax of 15%. This will be the case so long as our securities remain listed for trading on the Tel Aviv Stock Exchange or on a designated foreign stock market such as the NASDAQ. However, according to the tax reform legislation, non-residents of Israel will be exempt from any capital gains tax from the sale of our securities so long as the gains are not derived through a permanent establishment that the non-resident maintains in Israel, and so long as our securities remain listed for trading as described above. These provisions dealing with capital gains are not applicable to an Israeli resident whose gains from selling or otherwise disposing of our securities are deemed to be business income or whose taxable income is determined pursuant to the Israeli Income Tax Law (Inflation Adjustments), 1985; the latter law would not normally be applicable to non-resident shareholders who have no business activity in Israel.

In any event, under the US-Israel Tax Treaty, a US treaty resident cannot be liable to Israeli capital gains tax from the sale of our convertible debentures or options for the purchase of our shares, and may only be liable to Israeli capital gains tax on the sale of our ordinary shares (subject to the provisions of Israeli domestic law as described above) if that US treaty resident holds 10% or more of the voting power in our company.

B. Israeli Tax on Interest Income and on Original Issuance Discount

Interest and on Original Issuance Discount (OID) on our convertible debentures, issued in January 2002, accruing from January 1, 2003 and on will in general be liable to Israeli tax of up to 15% if received by an individual. This reduced rate of tax will not apply if the interest and OID are business income in the hands of the recipient, if the recipient is a controlling shareholder of our company, or if financing costs for the purchase of the debentures were deducted by the individual in the calculation of the individual's Israeli taxable income in which cases regular rate of tax will apply.. Interest and OID received by a corporation are generally taxable at a rate of 36%.

Under new regulations, promulgated as part of the recent tax reform, withholding at source from debenture interest and OID paid to non-resident individuals will in general be at a rate of 15% and from debenture interest and OID paid to non-resident corporations at a rate of 25%. In any event, under the US-Israel tax treaty, the maximum Israeli tax withheld on interest and OID paid on our convertible debentures to a US treaty resident (other than a US bank, savings institution or company) is 17.5%.

C. Israeli Tax on Dividend Income

Israeli tax at a rate of 25% is generally withheld at source from dividends paid to Israeli individuals and non-residents; in general, no withholding tax is imposed on dividends paid to Israeli companies (subject to the provision of the Israeli Income Tax Ordinance). The applicable rate for dividends paid out of the profits of an Approved Enterprise is 15%. These rates are subject to the provisions of any applicable tax treaty.

Under the US-Israel Tax Treaty, Israeli withholding tax on dividends paid to a US treaty resident may not in general exceed 25%, or 15% in the case of dividends paid out of the profits of an Approved Enterprise. Where the recipient is a US corporation owning 10% or more of the voting stock of the paying corporation and the dividend is not paid from the profits of an Approved Enterprise, the Israeli tax withheld may not exceed 12.5% subject to certain conditions.

D. PFIC Rules

A non-U.S. corporation will be classified as a PFIC for U.S. federal income tax purposes if either (i) 75% or more of its gross income for the taxable year is passive income, or (ii) on a quarterly average for the taxable year by value (or, if it is not a publicly traded corporation and so elects, by adjusted basis), 50% or more of its gross assets produce or are held for the production of passive income.

We do not believe that we satisfied either of the tests for PFIC status in 2002 or in any prior year. However, there can be no assurance that we will not be a PFIC in 2003 or a later year. If, for example, the "passive income" earned by us exceeds 75% or more of our "gross income", we will be a PFIC under the "income test". Passive income for PFIC purposes includes, among other things, gross interest, dividends, royalties, rents and annuities. For manufacturing businesses, gross income for PFIC purposes should be determined by reducing total sales by the cost of goods sold. Although not free from doubt, if our cost of goods sold exceeds our total sales by an amount greater than our passive income, such that we are treated as if we had no gross income for PFIC purposes, we believe that we would not be a PFIC as a result of the income test. This belief is supported by a private letter ruling issued by the IRS to a company whose circumstances are substantially the same as ours, although such private letter ruling would not be binding on the IRS in determining our status. In addition, 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.

If we were to be a PFIC at any time during a U.S. holder's holding period, such U.S. holder would be required to either: (i) pay an interest charge together with tax calculated at maximum ordinary income rates on "excess distributions," which is defined to include gain on a sale or other disposition of ordinary shares, or (ii) so long as the ordinary shares are "regularly traded" on a qualifying exchange, elect to recognize as ordinary income each such year the excess in the fair market value, if any, of its ordinary shares at the end of the taxable year over such holder's adjusted basis in such ordinary shares and, to the extent of prior inclusions of ordinary income, recognize ordinary loss for the decrease in value of such ordinary shares (the "mark to market" election). For this purpose, the Nasdaq National Market is a qualifying exchange. U.S. holders are strongly urged to consult their own tax advisers regarding the possible application and consequences of the PFIC rules.

The above discussion does not purport to be an official interpretation of the tax law provisions mentioned therein or to be a comprehensive description of all tax law provisions which might apply to our securities or to reflect the views of the Israeli tax authorities, and it is not meant to replace professional advice in these matters. The above discussion is based on current Israeli tax law, which may be changed by future legislation or reforms. Non-residents should obtain professional tax advice with respect to the tax consequences under the laws of their countries of residence of holding or selling our securities.

Documents on Display

We are required to file reports and other information with the SEC under the Securities Exchange Act of 1934 and the regulations thereunder applicable to foreign private issuers. Reports and other information filed by us with the SEC may be inspected and copied at the SEC's public reference facilities described below. Although as a foreign private issuer we are not required to file periodic information as frequently or as promptly as United States companies, we generally do publicly announce our quarterly and year-end results promptly and file periodic information with the SEC under cover of Form 6-K. As a foreign private issuer, we are also exempt from the rules under the Exchange Act prescribing the furnishing and content of proxy statements and our officers, directors and

principal shareholders are exempt from the reporting and other provisions in Section 16 of the Exchange Act.

You may review a copy of our filings with the SEC, including any exhibits and schedules, at the SEC's public reference facilities in Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549 and at the regional offices of the SEC located at the Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. You may also obtain copies of such materials from the Public Reference Section of the SEC, Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates. You may call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. In addition, such information concerning our company can be inspected and copied at the offices of the National Association of Securities Dealers, Inc., 9513 Key West Avenue, Rockville, Maryland 20850 and at the offices of the Israel Securities Authority at 22 Kanfei Nesharim St., Jerusalem, Israel. As a foreign private issuer, all documents which were filed after November 4, 2002 on the SEC's EDGAR system will be available for retrieval on the SEC's website at www.sec.gov. You may read and copy any reports, statements or other information that we file with the SEC at the SEC facilities listed above. These SEC filings are also available to the public from commercial document retrieval services. We also generally make available on our own Web site (www.towersemi.com) all our quarterly and year-end financial statements as well as other information.

Any statement in this annual report about any of our contracts or other documents is not necessarily complete. If the contract or document is filed as an exhibit to the registration statement, the contract or document is deemed to modify the description contained in this annual report. We urge you to review the exhibits themselves for a complete description of the contract or document.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk of loss related to changes in market prices, including interest rates and foreign exchange rates, of financial instruments that may adversely impact our consolidated financial position, results of operations or cash flows.

The currency of the primary economic environment in which we conduct our operations is the U.S. dollar. Our primary market risk exposures relate to interest rate movements on borrowings, fluctuations of the dollar exchange rate vis-à-vis the NIS, and to exchange rate movements on foreign currency relating to equipment used in manufacturing processes and purchased primarily from Japan and Europe. To manage those risks and mitigate their exposure, we use financial instruments, primarily, collar agreements with or without a knock-out feature and cylinder options (call & put).

All financial instruments are managed and controlled under a program of risk management in accordance with established policies. These policies are reviewed and approved by our board of directors. Our treasury operations are subject to an internal audit

on a regular basis. We do not hold or issue derivative financial instruments for trading or speculative purposes.

Interest Rates

We have market risk exposure in changing interest rates of our long-term debt obligations. We primarily enter into debt obligations to support capital expenditures and needs. We use, from time to time, interest rate collar agreements with a knock-out feature to modify our exposure to interest rate movements and to reduce borrowing costs. These agreements limit the risks of fluctuating interest rates by allowing us to convert a portion of the interest on our borrowings from a variable rate to a limited variable rate. A knock-out LIBOR-based interest rate collar is a combination of a purchased knock-out cap with a cap level and a knock-out level and written floor with a floor level. According to the terms of our interest rate collar agreement, the combination is of a purchased knock-out cap with a cap level of 5.5% and a knock-out level of 7.50% and written floor with a floor level of 4.28%, in some of them floor level of or 2.8%. Under the knock-out provision in our interest rate collar agreement, in the event that the LIBOR rate exceeds 7.5% during a particular quarter, the protection provided under the interest collar agreement will expire with respect to that entire quarter. If the LIBOR rate decreases thereafter and remains below 7.50% in any successive quarter for the duration of the entire quarter, the protection provided under the interest rate collar will again be effective. The possible interest rates according to these agreements are illustrated below. The fair value of the knock-out interest rate collars as of December 31, 2002 was a \$12.0 million loss.

We are subject to cash flow exposure in connection with our \$13 million Fab 1 long-term debt, which bears interest at three month LIBOR plus 1.5%. The debt is repayable in 13 equal quarterly installments. In addition, as of December 31, 2002, we are subject to cash flow exposure in connection with our \$ 244 million long-term debt under the Fab 2 facility agreement as such debt bears interest at LIBOR plus 1.55% (2.95% as of December 31, 2002, subject to the results of our hedging activities described below). The actual debt incurred under the facility agreement is repayable in 12 equal consecutive quarterly installments commencing 3 years from the end of the quarter of each draw down. As of the date of this annual report, we have drawn down additional \$30 million under the Fab 2 facility agreement under similar terms.

For the purpose of mitigating the exposure to our long-term debt, we entered into collar agreements with a knock-out feature, for the years 2001-2007. The total amount of the collar agreements is \$ 212 million, of which \$ 172 million is effective as of December 31, 2002 (an additional \$ 40 million will be effective as of July 2004).

Under the terms of all these collar agreements and the credit facility, regarding the \$172 million effective collar agreements, if the LIBOR is below 4.28% we will pay interest at the fixed rate of 5.83%; if the LIBOR is between 4.28% and 5.56%, we will pay interest at the LIBOR plus 1.55%; if the LIBOR is between 5.56% and 7.50% we will pay interest at a fixed rate of 7.11%; and if the LIBOR is higher than 7.50%, we will pay the LIBOR rate plus 1.55%. Accordingly, the terms of our long-term debt combined with the terms of our collar agreements resulted in \$172 million long-term loans which as of December 31,

2002 bear interest at a rate of 5.83%, and additional \$85 million long-term loans which as of such date bear interest at a rate of 2.95%.

The collar agreements with a knock-out feature resulted in 2002 in a loss of \$ 3.7 million, which was mostly capitalized to property and equipment.

Under the terms of the \$40 million collar agreements, effective as of July 2004, and the credit facility, if the LIBOR is below 2.8% we will pay interest at the fixed rate of 4.35%; if the LIBOR is between 2.8% and 5.5%, we will pay interest at the LIBOR plus 1.55%; if the LIBOR is between 5.5% and 7.50% we will pay interest at a fixed rate of 7.11%; and if the LIBOR is higher than 7.50%, we will pay the LIBOR rate plus 1.55%. Assuming a 10% upward shift in the LIBOR rate at December 31, 2002, the effective fair value of the \$ 85 million debt (comprised of a total long-term debt of \$ 257 million off-set by \$ 172 million which is hedged by the collar agreements) to which we are exposed, should have been increased by \$ 0.4 million. With regard to the \$172 million debt hedged by the collar agreements, as of December 31, 2002 no market risk effect is presented since the LIBOR as of such date was 1.4% and the collar agreements' mechanism provide for a fixed rate interest of 5.83%.

Our cash equivalents and short-term interest-bearing deposits are exposed to financial market risk due to fluctuation in interest rates, which may affect our interest income and the fair market value of our investments. We manage this exposure by performing ongoing evaluations of our investments in those deposits. Due to the short maturities of our investments, the carrying value approximates the fair value.

Convertible Debentures and Options (Series 1). The convertible debentures, as well as the exercise price of our Options (Series 1) (exercisable into our ordinary shares) are denominated in NIS and linked to the Israel consumer price index , which is referred to as CPI. Half of the convertible debentures amount is covered by a deposit denominated in NIS and linked to the CPI. Therefore, we are exposed to the risk of NIS/dollar exchange rate fluctuations vis-à-vis the changes in the CPI only for the remaining balance of the convertible debentures. The dollar amount of our finance costs (interest and currency adjustments) related to the convertible debentures, whether expensed or capitalized, will be increased if the inflation in Israel is not offset (or is offset on a lagging basis) by the devaluation of the NIS in relation to the dollar. In addition, the dollar amount of any repayment on account of the principal of the convertible debentures will be increased as well. On a contrary occasion, the dollar amounts we shall raise on the date of exercising our Options (Series 1) will be decreased. From the date of the convertible debentures issuance until the end of 2002 the Israel consumer price index increased by 6.79% while the US dollar/NIS exchange rate increased by 3.36%.

The convertible debentures bear annual interest at a fixed rate of 4.7%. Therefore, we are not subject to exposure to interest rate fluctuations. However, in case the actual market interest rates are lower than the interest rate provided on the convertible debentures, our actual finance costs, whether capitalized or expensed, would be higher if the interest rate on the debentures was determined based on floating rates.

Excluding the NIS deposit equivalent to half of the balance of the convertible debentures, we are not engaged in any hedging transaction to reduce our exposure risks related to our convertible debentures balance, the interest rate we are obligated to pay in relation thereto, or to the exercise prices of our Options (Series 1).

Foreign Exchange Risk

Our main foreign currency exposures give rise to market risk associated with exchange rate movements of the US dollar, our functional and reporting currency, against the Japanese Yen, Euro and the NIS. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, we utilize currency cylinder options (call & put) to minimize the impact of foreign currency fluctuations on our financial position and results of operations. A cylinder option is a combination of a purchased call option and a written put option. The exercise prices of the options may not be identical and this effectively creates a synthetic range forward. The maturity dates of the options coincide with the scheduled payments to suppliers. The fair value of the cylinder options as of December 31, 2002 was \$1.6 million gain.

Accordingly, we enter, from time to time, into foreign exchange agreements to hedge exposure to equipment purchase commitments and other firm commitments. Most of those agreements are designated to eliminate exposure changes in the Japanese Yen and the Euro vis-à-vis the US dollar. During 2002, we had \$ 59 million cylinder options (call & put) complex transactions, which resulted in 2002 in a \$ 3.1 million gain (mostly capitalized to property and equipment). As of December 31, 2002 we had \$44 million open transactions.

We enter from time to time into foreign exchange agreements to hedge exposure relating to VAT, grants receivables and payroll expenses denominated in NIS. The effect of these agreements was immaterial. As of December 31, 2002, there were \$ 2.4 million open transactions in relation to VAT exposure and \$2.7 million in open transactions in relation to payroll exposure.

We are exposed to currency risk in the event of default by the other parties of the exchange transaction. The likelihood of such default is remote, as the other parties are widely recognized and reputable Israeli banks.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

ITEM 15. CONTROLS AND PROCEDURES

An evaluation was performed under the supervision and with the participation of our management, including our chief executive officers and chief financial officer, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-14(c) and 15d-14(c) under the Securities Exchange Act of 1934, as amended). Based on that evaluation, which was completed within 90 days of the filing date of this annual report, our chief executive officers and chief financial officer, concluded that our disclosure controls and procedures were effective though we are constantly engaged in the process of improving these controls and procedures. There have been no significant changes in our disclosure controls or in other factors that could significantly affect disclosure controls subsequent to the date of the evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

ITEM 16. [RESERVED]

PART III

ITEM 17. FINANCIAL STATEMENTS

Not applicable.

ITEM 18. FINANCIAL STATEMENTS

See Index to Financial Statements following the signature page.

ITEM 19. EXHIBITS

1.1.1 Articles of Association of the Registrant, approved by shareholders on November 14, 2000 (incorporated by reference to the correspondingly-numbered exhibit to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2001 (the "2000 Form 20-F")).

1.1.2 Memorandum of Association of the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the Registrant's Registration Statement on Form S-1, No. 33-83126).

2.1 Bank Warrants dated January 18, 2001 between the Registrant and Bank Hapoalim B.M. and Bank Leumi Le-Israel B.M. (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

2.2 Registration Rights Agreement, dated as of January 18, 2001, by and between SanDisk Corporation, Israel Corporation, Alliance Semiconductor Ltd. and Macronix International Co., Ltd. (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

2.3 Terms of the Registrant's Convertible Debentures issued under an Indenture dated January 22, 2002 (incorporated by reference to the summary of terms included under the caption "Description of the Debentures" in Exhibit C to the Registrant's Report on Form 6-K for January 2002 (No. 2), filed January 16, 2002 ("January 2002 Form 6-K")).

2.4 Terms of the Registrant's Options (Series 1) (incorporated by reference to the summary of terms included under the caption "Description of the Options" in Exhibit C to the January 2002 Form 6-K).

3.1 Consolidated Shareholders Agreement, dated as of January 18, 2001, by and between SanDisk Corporation, Israel Corporation, Alliance Semiconductor Ltd. and Macronix International Co., Ltd. (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.1 Share Purchase Agreement, dated as of July 4, 2000, by and between SanDisk Corporation and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.2 Additional Purchase Obligation Agreement, dated as of July 4, 2000, by and between SanDisk Corporation ("SanDisk") and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

- 4.3 Share Purchase Agreement, dated as of August 29, 2000, by and between Alliance Semiconductor Corporation (“Alliance”) and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.4 Share Purchase Agreement, dated as of December 11, 2000, by and between QuickLogic Corporation (“QuickLogic”) and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.5 Share Purchase Agreement, dated as of December 12, 2000, by and between Macronix International Co., Ltd. (“Macronix”) and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.6 Share Purchase Agreement, dated as of December 12, 2000, between Israel Corporation and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.7 Additional Purchase Obligation Agreement, dated as of December 12, 2000, between Israel Corporation and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.8 Share Purchase Agreement, dated February 11, 2001, between The Challenge Fund - Etgar II and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.9 Facility Agreement dated January 18, 2001 among the Registrant, Bank Hapoalim B.M. and Bank Leumi Le-Israel B.M. (the “Facility Agreement”) (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.10 Design and Construction/Turn-Key Contract dated as of August 20, 2000 among the Registrant, M+W Zander Holding GmbH, Meissner-Baran Ltd. and Baran Group Ltd. (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.11 Option Grant to Ehud Hillman dated September 24, 2000 (Hebrew language document; a summary of the terms is included in the 2000 Form 20-F under the caption “Related Party Transactions” in “Item 7. Major Shareholders and Related Party Transactions”) (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.12 Approval dated December 31, 2000 of the Israeli Investment Center (Hebrew language document; a summary of the terms is included in the 2000 Form 20-F under the caption “Fab 2 Agreements” in “Item 5. Operating and Financial Review and Prospects”) (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).
- 4.13 Agreement between the Registrant and Saifun dated October 9, 1997 (incorporated by reference to exhibit 1.1 to the Registrant’s Annual Report on Form 20-F for the year ended December 31, 1997).
- 4.14 Registrant’s Non-Employee Director Share Option Plan 2000/3 (incorporated by reference to exhibit 4.5 to the Registrant’s Registration Statement on Form S-8 No. 333-83204 (“Form S-8 No. 333-83204”)).
- 4.15 Form of Grant Letter for Non-Employee Directors Share Option Plan 2001/4 (incorporated by reference to exhibit 4.9 to the Form S-8 No. 333-83204).

- 4.16 Form of Grant Letter for Non-Employee Directors Share Option Plan 2001/5 (incorporated by reference to exhibit 4.10 to the Form S-8 No. 333-83204).
- 4.17 Wafer Partner Conversion Agreements dated September 2001 between the Registrant and each of SanDisk, Alliance and Macronix (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).
- 4.18 Letter Agreement dated November 29, 2001 among SanDisk, Alliance, Macronix, QuickLogic and the Registrant regarding the Utilization of Prepayments (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).
- 4.19 Letter Agreements among Alliance, Macronix, QuickLogic, ICTech and the Registrant and between SanDisk and the Registrant regarding Additional Wafer Partner Financing Date (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).
- 4.20 Letter Agreement dated November 15, 2001 among SanDisk, Alliance, Macronix, QuickLogic, ICTech and the Registrant regarding Amendment to Financing Plan (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).
- 4.21 First Amendment dated January 29, 2001 to the Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).
- 4.22 Second Amendment dated January 10, 2002 to Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).
- 4.23 Third Amendment dated March 7, 2002 to the Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).
- 4.24 Joint Development and Transfer and Cross License Agreement dated as of May 2002 between the Registrant and Matsushita Industrial Electronic Co., Inc. (incorporated by reference to exhibit 10.3 to the Registrant's Registration Statement on Form F-2, No. 333-97043).
- 4.25 Technology License Agreement dated as of April 7, 2000 between the Registrant and Toshiba Corporation (incorporated by reference to exhibit 10.4 to the Registrant's Registration Statement on Form F-2, No. 333-97043). *
- 4.26 Technology Transfer License Agreement, dated as of September 2002 between Registrant and Motorola, Inc. (incorporated by reference to exhibit 10.5 to the Registrant's Registration Statement on Form F-2, No. 333-97043). *
- 4.27 Fourth Amendment dated April 29, 2002 to the Facility Agreement.
- 4.28 Fifth Amendment dated September 18, 2002 to the Facility Agreement.
- 4.29 Amendment to Fifth Amendment to the Facility Agreement dated October 22, 2002 to the Facility Agreement.
- 4.30 Letter Agreement dated March 2002 among SanDisk, Alliance, Macronix, ICTech and Challenge Fund to advance Third and Fourth Milestone Payments.
- 4.31 Letter Agreement dated July, 2002 among SanDisk, Alliance, Macronix, and ICTech to exercise rights distributed in rights offering.
- 4.32 Letter Agreement dated March 2003 among SanDisk, Alliance, Macronix, ICTech, and the Registrant.

4.33 Form of Rights Agent Agreement between the Registrant and American Stock Transfer & Trust Company (including form of Rights Certificate) (incorporated by reference to exhibit 4.1 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.34 Form of Warrant Agreement between the Registrant and American Stock Transfer & Trust Company (including form of Warrant Certificate) (incorporated by reference to exhibit 4.2 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.35 Form of Commitment Letter from the Registrant's Shareholders, dated July 23, 2002, regarding participation in the Registrant's Rights Offering (incorporated by reference to exhibit 10.1 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.36 Investment Center Agreement related to Fab 1, dated November 13, 2001 (English translation of Hebrew original) (incorporated by reference to exhibit 10.2 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

Development and License Agreement dated March 31, 2002 between Virage Logic Corporation and the Registrant. *

4.37 Master Services and License Agreement dated June 2002 between Artisan Components, Inc. and the Registrant. *

12.1 Certification by Co-Chief Executive Officers pursuant to section 906 of the Sarbanes-Oxley Act of 2002.

12.2 Certification by Chief Financial Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002.

* Portions of this exhibit have been omitted pursuant to a request for confidential treatment.

SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant certifies that it meets all the requirements for filing on Form 20-F and has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized on this 14 day of April, 2003.

TOWER SEMICONDUCTOR LTD.

By: Rafael M. Levin
/s/ Rafael M. Levin
Co-Chief Executive Officer

CERTIFICATIONS

I, Rafael Levin, certify that:

1. I have reviewed this annual report on Form 20-F of Tower Semiconductor Ltd.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that

could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

April 14, 2003

/S/ RAFAEL LEVIN

Rafael Levin
Co-Chief Executive Officer

CERTIFICATIONS

I, Yoav Nissan-Cohen, certify that:

1. I have reviewed this annual report on Form 20-F of Tower Semiconductor Ltd.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that

could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

April 14, 2003

/S/ YOAV NISSAN-COHEN

Yoav Nissan-Cohen
Co-Chief Executive Officer

CERTIFICATIONS

I, Amir Harel, certify that:

1. I have reviewed this annual report on Form 20-F of Tower Semiconductor Ltd.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that

could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

April 14, 2003

/S/ AMIR HAREL

Amir Harel
Chief Financial Officer