

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

FORM 20-F

(Mark One)

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

OR

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

For the fiscal year ended December 31, 2020

OR

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

OR

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

Commission File number: 0-24790

**TOWER SEMICONDUCTOR LTD.**

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

**Israel**

(Jurisdiction of incorporation or organization)

**Ramat Gavriel Industrial Park  
P.O. Box 619, Migdal Haemek 2310502, Israel**

(Address of principal executive offices)

**Nati Somekh, +972-4-6506109, natiso@towersemi.com;  
Ramat Gavriel Industrial Park P.O. Box 619, Migdal Haemek 2310502, Israel**

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

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

<b>Title of Each Class</b>	<b>Trading Symbol(s)</b>	<b>Name of Each Exchange on Which Registered</b>
Ordinary Shares, par value New Israeli Shekels 15.00 per share	TSEM	NASDAQ Global Select Market

**Securities registered or to be registered pursuant to Section 12(g) of the Act:** None

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:** None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 107,923,544 Ordinary Shares.

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

Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes  No

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

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

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes  No

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

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

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

Item 17  Item 18

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

Yes  No

## FORWARD LOOKING STATEMENTS

This annual report on Form 20-F includes certain “forward-looking” statements within the meaning of Section 21E of the Securities Exchange Act of 1934. The use of the words “projects,” “expects,” “may,” “plans” or “intends,” or words 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 in “Item 3. Key Information-D. Risk Factors”.

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## EXPLANATORY INFORMATION

In this annual report, “Tower” refers to Tower Semiconductor Ltd., an Israeli company, and “we,” “us,” “our,” and “the Company” and words of similar import, refer collectively to Tower and its then owned and/or consolidated subsidiaries.

All references herein to “dollars”, “US dollars”, “USD” or “\$” are to United States dollars, all references to “JPY” are to the Japanese Yen and all references to “Shekels” or “NIS” are to New Israeli Shekels. “U.S. GAAP” means the generally accepted accounting principles of the United States. Unless otherwise stated, all of our financial information presented in this annual report has been prepared in accordance with U.S. GAAP.

In 2008, we completed a merger with Jazz Technologies, Inc. (“Jazz Technologies”) and its wholly-owned subsidiary Jazz Semiconductor, Inc. (“Jazz Semiconductor”), an independent semiconductor foundry focused on specialty process technologies for the manufacture of analog intensive mixed-signal semiconductor devices. As a result of this transaction, Jazz Technologies became a wholly-owned subsidiary of Tower. In November 2015, Jazz Technologies (i) was re-named to become Tower US Holdings Inc. (“Tower US Holdings”) and (ii) transferred all of its liabilities and all of its assets, including its ownership of all of the shares of Jazz Semiconductor to Jazz US Holdings Inc. (“Jazz US Holdings”), a company registered under the laws of Delaware and fully owned by Tower US Holdings (the “November 2015 Jazz Restructure”). The November 2015 Jazz Restructure established Jazz US Holdings as an intermediate holding company, holding all of the shares of Jazz Semiconductor. Tower US Holdings remains 100% owned by Tower. In March 2020, the company name of Jazz Semiconductor, Inc. was changed to Tower Semiconductor Newport Beach, Inc. (“NPB Co.”) and the name of Jazz US Holdings Inc. was changed to Tower Semiconductor NPB Holdings, Inc. As used in this annual report, “Tower NPB” refers to Jazz Technologies, including its subsidiaries, for the period preceding November 23, 2015, and to Jazz US Holdings or Tower Semiconductor NPB Holdings, Inc., under its new name, including its subsidiaries, following such date.

In March 2014, we acquired a 51% equity stake in TowerJazz Panasonic Semiconductor Co., Ltd., (“TPSCo”), a company formed by Panasonic Corporation (“Panasonic” or “Panasonic Corporation”), holding three manufacturing facilities in Japan. In June 2014, Panasonic transferred its shares and assigned its rights and obligations in TPSCo to its wholly owned subsidiary, Panasonic Semiconductor Solutions Co., Ltd. (“PSCS”). In July 2020, TPSCo changed its name to Tower Partners Semiconductor Co., Ltd. In September 2020, Panasonic sold its shares in PSCS to Nuvoton Technology Corp. (“Nuvoton”), a Taiwan based semiconductor company, which is majority owned by Winbond Electronics Corporation, a Taiwan-based specialty memory integrated circuits company. Following the sale, the registered name of PSCS changed from Panasonic Semiconductor Solutions Co., Ltd. to Nuvoton Technology Corporation Japan (“NTCJ”).

In February 2016, we acquired a fabrication facility in San Antonio, Texas, from Maxim Integrated Products Inc. (“Maxim”). The assets and related business that we acquired from Maxim are held and conducted through an indirect wholly-owned US subsidiary, TowerJazz Texas Inc., which is fully owned by Tower US Holdings. In March 2020, the company name of TowerJazz Texas Inc. was changed to Tower Semiconductor San Antonio, Inc. (“Tower SA”).

The consolidated financial statements included in this annual report include the results and balances of Tower and its following subsidiaries: (i) its wholly-owned indirect subsidiary Tower NPB, (ii) its majority-owned subsidiary TPSCo and (iii) its wholly-owned indirect subsidiary Tower SA.

As used in this annual report, “Fab 1” means the semiconductor fabrication facility located in Migdal Haemek, Israel that Tower acquired from National Semiconductor, Inc. (“National Semiconductor”) in 1993. “Fab 2” means the semiconductor fabrication facility located in Migdal Haemek, Israel that Tower established in 2003. “Fab 3” means the semiconductor fabrication facility NPB Co. operates in Newport Beach, California. “Arai E” means the semiconductor fabrication facility TPSCo operates in Kurihara 4-5-1, Myoko-shi, Niigata, Japan. “Uozu E” means the semiconductor fabrication facility TPSCo operates in Higashiyama 800, Uozu-shi, Toyama, Japan. “Tonami CD” means the semiconductor fabrication facilities TPSCo operates in Higashi-Kaihotsu 271, Tonami-shi, Toyama, Japan. “Fab 9” means the semiconductor fabrication facility Tower SA operates in San Antonio, Texas.

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Manufacturing or production capacity refers to installed equipment capacity in our facilities and is a function of the process technology and product mix being manufactured, because certain processes require more processing steps than others. All information herein with respect to the wafer capacity of our manufacturing facilities is based upon our estimate of the effectiveness of the manufacturing equipment and processes in use or expected to be in use during a period and the estimated or expected process technology and product mix for such period. Unless otherwise specifically stated, all references herein to “wafers” with respect to Fab 1 capacity are to 150-mm wafers, with respect to Fab 2, Fab 3, Arai E, Tonami CD and Fab 9 capacity are to 200-mm wafers, and with respect to Uozu E are to 300-mm wafers, ranging from 45 nanometers to 1 micron for the manufacture of products using CMOS and analog-based technologies.

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TPSCO® and TPSCo® (and design) are registered trademarks of TPSCo in the U.S. and Japan.

## TABLE OF CONTENTS

<u>PART I</u>		6
<u>ITEM 1.</u>	<u>IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS</u>	6
<u>ITEM 2.</u>	<u>OFFER STATISTICS AND EXPECTED TIMETABLE</u>	6
<u>ITEM 3.</u>	<u>KEY INFORMATION</u>	6
<u>ITEM 4.</u>	<u>INFORMATION ON THE COMPANY</u>	22
<u>ITEM 4A.</u>	<u>UNRESOLVED STAFF COMMENTS</u>	38
<u>ITEM 5.</u>	<u>OPERATING AND FINANCIAL REVIEW AND PROSPECTS</u>	39
<u>ITEM 6.</u>	<u>DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES</u>	48
<u>ITEM 7.</u>	<u>MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS</u>	63
<u>ITEM 8.</u>	<u>FINANCIAL INFORMATION</u>	64
<u>ITEM 9.</u>	<u>THE OFFER AND LISTING</u>	65
<u>ITEM 10.</u>	<u>ADDITIONAL INFORMATION</u>	65
<u>ITEM 11.</u>	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	77
<u>ITEM 12.</u>	<u>DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES</u>	78
<u>PART II</u>		78
<u>ITEM 13.</u>	<u>DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES</u>	78
<u>ITEM 14.</u>	<u>MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS</u>	78
<u>ITEM 15.</u>	<u>CONTROLS AND PROCEDURES</u>	79
<u>ITEM 16.</u>	<u>[RESERVED]</u>	79
<u>ITEM 16A.</u>	<u>AUDIT COMMITTEE FINANCIAL EXPERT</u>	79
<u>ITEM 16B.</u>	<u>CODE OF ETHICS</u>	80
<u>ITEM 16C.</u>	<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	80
<u>ITEM 16D.</u>	<u>EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES</u>	80
<u>ITEM 16E.</u>	<u>PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS</u>	80
<u>ITEM 16F.</u>	<u>CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT</u>	80
<u>ITEM 16G.</u>	<u>CORPORATE GOVERNANCE</u>	81
<u>ITEM 16H.</u>	<u>MINE SAFETY DISCLOSURE</u>	82
<u>PART III</u>		82
<u>ITEM 17.</u>	<u>FINANCIAL STATEMENTS</u>	82
<u>ITEM 18.</u>	<u>FINANCIAL STATEMENTS</u>	83
<u>ITEM 19.</u>	<u>EXHIBITS</u>	83

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**

**A. SELECTED FINANCIAL DATA**

Reserved.

**B. CAPITALIZATION AND INDEBTEDNESS**

Not applicable.

**C. REASONS FOR THE OFFER AND USE OF PROCEEDS**

Not applicable.

**D. RISK FACTORS**

Our business faces many risks. Any of the risks discussed below may have an adverse impact on our business, financial condition and operating results.

**Risks Affecting Our Business**

***Over-demand for our foundry services and/or products may result in bottlenecks in production lines and a loss of customers and revenues, which may adversely affect our profitability and business.***

In periods during which demand for our foundry services exceeds our capacity and manufacturing capabilities, as we currently face, we may (i) be unable to fulfill customer demand in whole or in part, in a timely manner or at all; (ii) be unable to assure production of customers' next generation products; (iii) experience bottlenecks in production lines, which may cause the fabrication facility to slow down and/or halt operations; and/or (v) be unable to provide additional capacity from any of our worldwide facilities through transfer of process technologies, successful implementation and timely qualification. As a result, we could lose one or more of our current and/or potential customers, which may adversely affect our reputation, revenues, profitability and business.

***Reliance on acquisitions and/or gaining additional capacity for growth involves risks that may adversely affect our future revenues, business and operating results.***

We may decide to try to attract new customers and expand the existing business with current customers and/ or new served markets by expanding our manufacturing footprint and business through acquisitions and joint ventures, as we have done in the past, and/or through obtaining access to additional manufacturing capacity, with or without third-party collaboration. Our success at such expansion is dependent, in part, on finding suitable partners and targets for acquisitions, successfully negotiating with the seller and/ or partner a reasonable price for the acquisition or engagement, successfully financing and consummating such expansion plans, integrating the acquired facilities into our business efficiently and effectively to achieve desired synergies and anticipated benefits, and loading the facilities in an amount that may at least cover their operating and other costs. We cannot assure you that we will be successful in executing this business strategy or that we will succeed to increase our market presence and attract new customers and business and/or expand business with our current customers through that strategy, in order to operate any such acquired capacity profitably.

This strategy involves many risks, each of which may negatively affect our profitability and financial position, including the following:

- Other foundries may bid against us to acquire potential targets. This competition may result in decreased availability of, or increased prices for, suitable acquisition candidates;
- We may not be able to obtain the necessary regulatory or other approvals, and as a result, or for other reasons, we may fail to consummate certain acquisitions;
- Potential acquisitions and execution of an expansion plan may require the dedication of substantial management effort, time and resources which may divert management from our existing business operations or other strategic opportunities;
- We may not be able to retain experienced management and skilled employees from the businesses we acquire and, if we cannot retain such personnel, we may not be able to attract new skilled employees and experienced management to replace them;
- We may purchase a company with excessive unknown contingent liabilities and/ or a cost structure that is not as beneficial as anticipated from the preliminary evaluation or that includes high cost that may result in losses incurred by us if we do not succeed in maintaining high manufacturing levels to cover its cost;
- We may not be able to obtain sufficient financing which could limit our ability to engage in certain acquisitions and strategic engagements; and
- The amount or terms of financing actually required before and after acquisition may vary from our expectations, resulting in a need for more funding that may not be available to us in order to finance the acquisition, the operations of the target acquisition and/or the acquisition of additional equipment that may be required to increase and/or adjust the target's manufacturing line to address our customer demand and specific technology flows, which may adversely affect our liquidity and balance sheet position.

***We may experience difficulty achieving acceptable device yields, product performance and delivery times in the future 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 delivery times. Microscopic impurities such as dust and other contaminants, difficulties in the production process, defects in the key materials and tools used to manufacture wafers and other factors can cause wafers to be rejected or individual semiconductors on specific wafers to be non-functional. Although we continuously enhance our manufacturing capabilities and efficiency, from time to time we have experienced production difficulties that have caused delivery delays and quality control problems. Manufacturing issues we may face include difficulties in upgrading or expanding existing facilities; unexpected breakdowns in our manufacturing equipment and/or related facility systems; unexpected events, such as an electricity outage, affecting the manufacturing process; difficulties in changing or upgrading our process technologies; raw material shortages or impurities; delays in delivery or shortages of spare parts; and difficulties in maintenance and upgrade of our equipment. Should such problems occur to a material degree, we may suffer loss of income, loss of reputation and/or a loss of customers, any of which may adversely impact our business, revenues, financial results and financial condition.

***Demand for our foundry services is dependent on the demand in our customers' end markets, which are typically cyclical and volatile.***

Our customers generally use the semiconductors produced in our fabrication facilities in a wide variety of applications. We derive a significant percentage of our operating revenues from customers who use our manufacturing services to make semiconductors for communication devices, consumer electronics, PCs and other electronic devices. Any significant decrease in the demand for these electronic devices or products may decrease the demand for our services and products. In addition, if the average selling prices of communication devices, consumer electronics, PCs or other electronic devices decline significantly, we may be pressured to reduce our selling prices, which may reduce our revenues and margins significantly. As demonstrated in the past by downturns in demand for high technology products, market conditions can change rapidly, without warning or advance notice. In such instances, our customers may experience inventory buildup and/or difficulties in selling their products and, in turn, may reduce or cancel orders for wafers from us, which may harm our business and profitability. The timing, severity and recovery of these downturns cannot be predicted.

Because our services may be used in many new applications, it is difficult to accurately forecast demand for all markets. If demand is lower than expected, we may have excess capacity and our revenue may not be sufficient to cover all our costs and serve all our debt, which may adversely affect our financial results and financial position.

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

The semiconductor market is characterized by rapid change, including rapid technological developments, evolving industry standards, changes in customer and product end user requirements, frequent new product introductions and enhancements, and short product life cycles with declining prices as products mature. Our ability to maintain our current customer base and attract new customers is dependent in part on our ability to continuously develop and produce advanced specialized manufacturing process technologies and purchase the appropriate equipment. If we are unable to successfully develop and produce these processes in a timely manner or at all, or if we are unable to purchase the appropriate equipment required for such processes, we may be unable to maintain our current customer base and may be unable to attract new customers.

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

Many of our competitors may have one or more of the following competitive advantages over us: greater manufacturing capacity and/or availability of same; a more diverse and established customer base; greater financial, sales, marketing, distribution and other resources; governmental funding or support; better cost structure; and/or better operational performance, including cycle time and yields. If we do not compete successfully, our business and financial results may be adversely affected.

We compete most directly in specialty segments with certain independent dedicated foundries. We also compete with pure play advanced technology node driven foundry service providers, as they each have some capacity for specialty process technologies, and with integrated device manufacturers, or IDMs, that allocate a portion of their manufacturing capacity to foundry operations. As our competitors continue to expand their manufacturing capacity, there could be an increase in specialty semiconductor capacity. As specialty capacity increases, there may be more competition and pricing pressure on our services, which may result in underutilization of our capacity, decrease of our profit margins, reduced earnings or increased losses.

In addition, some semiconductor companies have advanced their complementary metal oxide semiconductor ("CMOS") designs to smaller than 10 nanometer process geometries. These smaller process geometries may provide customers with performance and integration features that may be comparable to, or exceed, features offered by our specialty process technologies. The smaller process geometries may also be more cost-effective at higher production volumes for certain applications. We are not currently capable, and do not currently plan to become capable, of providing CMOS processes at these smaller process geometries. If our potential or existing customers choose to design their products in a manner whereby the percentage of digital content in specialty designs increases significantly and requires these advanced CMOS processes, our business may be negatively impacted.



***If we are unable to successfully locate and negotiate with third-party buyers for the sale of any excess and/or unused equipment and/ or manufacturing facility, our financial results may be harmed.***

From time to time, we may decide to stop developing certain product technology lines or wind down or cease manufacturing at a fabrication facility due to company strategy, low margins, low utilization or low customer demand. This results in unused equipment that no longer supports our customers' needs and may be sold to third-party buyers. We also have obsolete or unutilized equipment from time to time which we may sell. If we are unable to successfully locate and negotiate with potential buyers and sell the excess equipment and/ or manufacturing facility in a timely manner for satisfactory consideration, we may be unable to cover our fixed and other costs associated with such decision, which may have a negative effect on our financial results.

***Our financial results may fluctuate from quarter to quarter, making it difficult to predict our future performance.***

Our revenues, expenses and operating results may fluctuate significantly from quarter to quarter due to a number of factors, some of which are beyond our control. These factors include, among others: the cyclical nature of the semiconductor industry and the volatility of the markets served by our customers; changes in the economic conditions of geographical regions where our customers and their markets are located; our ability to conclude and materialize business development and acquisition transactions for capacity expansion; inventory and supply chain management of our customers; the loss of a key customer, not attracting new designs from key customers, postponement of an order from a key customer or the rescheduling or cancellation of large orders; the occurrence of accounts receivable write-offs, failure of a key customer to pay accounts receivable in a timely manner, the financial condition of certain of our customers and the regulatory or other payment difficulties that may be imposed in a region in which customers reside; the occurrence of an unexpected event, such as environmental events, an epidemic or pandemic (such as COVID-19), industrial accidents such as fire or explosions, electricity outage, affecting the manufacturing process and shipping quality products without charging our customers significant additional costs; completing capacity expansions and recruitment of personnel in a timely manner to address product demands by our customers; mergers and acquisitions in the semiconductor industry and their effect on our market share; our ability to satisfy our customers' demand for quality and timely production; the timing and volume of orders from customers; our ability to obtain raw materials and equipment on a timely and cost-effective basis; price erosion in the industry and our ability to negotiate prices with our current and new customers; our susceptibility to intellectual property rights' disputes; our dependency on export licenses and other permits required for our operations and the sale of our products; our ability to maintain existing partners and to enter into new partnerships and technology and supply alliances on mutually beneficial terms; interest, price index and currency rate fluctuations that were not hedged; technological changes and short product life cycles; timing for the design and qualification of new products; and changes in accounting rules affecting our results.

Due to these factors and risks, it is difficult to predict our future performance and any fluctuations in future performance from expectations may ultimately negatively affect our operating results and financial position.

***We may be required to obtain financing for strategic opportunities, which may dilute the holdings of our shareholders and/or require us to incur additional debt.***

In order to invest in strategic opportunities in support of our acquisition and capacity growth plans and/or business development activities, or a joint partnership or another large transaction to expand our capacity, we may use our current cash balance, deposits and/or investments in marketable securities or may be required to secure additional funds from financing sources, including through public or private offerings of equity and/or debt and/or re-financing or other financing alternatives. In May 2020, we filed a shelf registration statement with the Israel Securities Authority, following the expiration of our previously filed 2016 shelf, which provides us with a platform for future public fundraisings in Israel, in which case we would publish a supplemental shelf takedown report containing specific information about the terms of any such transaction. The timing, terms, size and pricing of any future fundraising would be subject to the then-prevailing capital market conditions and our business and financial situation. There is no assurance that we will be able to obtain sufficient funding, if at all, from these financing sources or other sources in a timely manner (or on commercially reasonable terms) for said purposes, which may adversely affect our financial position and operations, and any sources of financing that we are able to secure may dilute the holdings of our shareholders and/or require us to incur additional debt.

***If we do not maintain our current key customers, and/or do not attract new key customers, our business and profitability may be adversely affected.***

Loss or cancellation of business from, or decreases in the sales volume or sales prices to, our significant customers, or our failure to replace lost business with new customers, may seriously harm our financial results, revenues and business. We have relationships with several customers that represent a material portion of our revenues. In 2020, 25% of our revenues were generated from one customer (PSCS, which was renamed NTCJ in September 2020 after its sale to Nuvoton Technology Corporation), and five additional customers each generated between 4% to 11% of our revenues. The loss or reduction in volume or sales price to any one of these customers, whether due to business negotiation, termination or expiration of their signed contract(s), their insolvency or their unwillingness or inability to perform their obligations under their respective relationships with us, or our inability to renew our engagements with them on commercially reasonable terms, produce their new products, fulfill their demand, or, alternatively, attract new customers to replace such lost business, may materially negatively impact our overall business, revenues and profitability.

***Risks relating to construction activities adjacent to Fab 3 and our Fab 3 lease could harm our operations and financial results.***

Our Fab 3 fabrication facility and its offices are leased under a contract that was initially in effect until March 2022 and we had an option, at our sole discretion, to extend the lease for an additional five year period, which we elected to exercise for the lease to continue through March 2027. A few years ago, the landlord began a construction project adjacent to the fabrication facility, which may adversely impact Fab 3 operations, including temporary reductions or interruptions in the supply of utilities to the property, and a portion or all of the fabrication facility may need to be idled temporarily during development, which may adversely affect our business and operating results. In addition, the landlord is claiming that noise abatement actions that have been implemented according to obligations under the lease are not adequate under the terms of the lease, which he claims may give him the right to terminate the lease and/or the option to extend the lease. While we do not agree with, and are disputing, these claims, any adverse change to the current lease agreement may adversely impact our business and future financial results.

***Certain effects of the COVID-19 pandemic may hurt our business.***

The recent COVID-19 outbreak, which was declared a global pandemic by the World Health Organization during March 2020, and its continued progress, may adversely affect our revenue, business and financial results. We may face (i) a shortage of supply of raw materials, products and services due to local restrictions and possible isolation periods imposed by the governments of vendors, or due to no or limited international courier delivery services, which may adversely affect our ability to secure our supply chain and continue operating and manufacturing without interruption in one or more of our fabrication facilities; (ii) potential reduced attendance of employees and service providers to our facilities and offices due to local restrictions and isolation periods imposed on them by the local government, as occurred during 2020 as a result of the global pandemic, which may adversely affect our ability to continue operating and manufacturing without interruption at one or more of our facilities; and (iii) potential reductions in customer orders or pricing due to any related or resulting global economic downturn, which may adversely affect our business and financial results.

***Our financial results may be adversely affected if we are unable to operate our facilities at satisfactory utilization rates necessary to generate and maintain positive and sustainable gross, operating and net profits.***

As is common in our industry, a large portion of our total costs is comprised of fixed costs, associated mainly with our manufacturing facilities, while our variable costs are relatively small. Therefore, while during periods when our facilities manufacture at high utilization rates we are able to cover our costs, at times when the utilization rate is low, the reduced revenues may not cover all of the costs since a large portion are fixed costs which remain constant, irrespective of the number of wafers manufactured. In addition, our depreciation costs and capital expenditure investments, as common in our industry, are relatively high. Our financial results, including our gross, operating and net profits, may be adversely impacted if customer demand for our products is not sufficient to enable us to operate our facilities consistently at satisfactory utilization rates necessary to generate and maintain revenue levels that would cover all of our costs.

***Our fabs' production performance metrics and business could be significantly harmed by natural disasters, particularly earthquakes, and fires.***

Our fabs in Israel, southern California and Japan are located in areas which are generally susceptible to seismic activity. Due to the complex and delicate nature of our manufacturing processes, our facilities are particularly sensitive to the effects of vibrations associated with even minor earthquakes. We cannot be certain that precautions that any of our fabs have taken to seismically upgrade the fabs will be adequate to protect our facilities in the event of an earthquake. Earthquakes may lead to fire in the fabs or other material damage. Also, we use highly flammable materials such as silane and hydrogen in our manufacturing processes and are therefore subject to risk arising from fire, which cannot be completely eliminated.

Any damage resulting from earthquakes, other natural disasters and fires could seriously disrupt production, cause a loss of wafers in production, deterioration of our fab yield and substantial downtime to reset equipment before resuming production, which could cause a material adverse effect on our business, revenue and profits. Although we maintain insurance policies to mitigate any potential losses that may be caused by earthquakes, other natural disasters and fires, including business interruption insurance, our insurance coverage may not compensate us fully for all of the losses we may incur.

***Possible product returns could harm our business.***

Products manufactured by us may be returned within specified periods if they are defective or otherwise fail to meet prior agreed upon specifications. Future product returns may have an adverse effect on our business and financial results.

***We are subject to risks related to our international operations.***

We generate revenues from customers located in the US, Europe and Asia-Pacific. Because of our international operations, we are vulnerable to the following risks:

- JPY and NIS fluctuations against the USD -- see the risk factor below entitled: *“Our exposure to currency exchange and interest rate fluctuations may impact our costs and financial results”*;
- the burden and cost of compliance with foreign government regulation, as well as compliance with a variety of foreign laws, and the imposition of regulatory requirements, tariffs, import and export restrictions and other trade barriers and restrictions, including the timing and availability of export licenses and permits;
- general geopolitical risks, such as political and economic instability, international terrorism, potential hostilities and changes in diplomatic and trade relationships;
- adverse foreign and international tax rules and regulations, such as withholding taxes deducted from amounts due to us and not refunded to us by the tax authorities since we are not entitled to foreign tax credit in Israel;
- weak protection of our intellectual property rights in certain foreign countries;
- delays in product shipments due to local customs restrictions;
- laws and business practices favoring local companies;
- difficulties in collecting accounts receivable; and
- difficulties and costs of staffing and managing foreign operations.

In addition, the geographical distance between Israel, the United States, Japan and the rest of Asia and Europe also creates certain logistical and communication challenges. We cannot assure you that we will be able to sufficiently mitigate all the risks related to our international operations.

***The production lines of our fabs may stop for certain periods of time due to power outages, water leaks, chemical leaks, supply chain or other issues.***

There are many events that may occur which may adversely affect the manufacturing process in our manufacturing facilities. From time to time, we experience high utilization rates in certain of our manufacturing lines and/or areas, which cause bottlenecks in production lines that may adversely affect our cycle time, yield and delivery schedule. A power outage, even of very limited duration, and/or water leaks, chemical leaks, shortage of parts or other materials which are required for our supply chain or other issues, may result in a loss of wafers in production, deterioration of our fab yield, cycle time and substantial downtime to reset equipment before resuming production, thereby potentially causing an immediate loss of revenue and profitability in a particular period.

In addition, affected customers may elect to transfer their product orders to other fabs. While we try to mitigate any potential damage caused by such events and have insurance coverage, which may compensate us partially or fully against certain types of damages, we cannot ensure that such events will not have a negative effect on the Company.

***Our financial position and operations may be affected as a result of our long-term debt.***

As of December 31, 2020, we had approximately \$392 million of consolidated principal amount of long-term debt outstanding, comprised as follows: (1) Tower had approximately \$104 million outstanding principal amount of Series G debentures, payable in five semi-annual consecutive equal installments from March 2021 to March 2023; (2) TPSCo had loans of approximately \$107 million principal amount (the "JP Loan"), carrying a fixed interest rate of approximately 2% per annum, with principal scheduled to be repaid in nine semiannual payments between 2021 and 2025; (3) Tower and its affiliates had capital lease agreements outstanding in the amount of approximately \$96 million from JA Mitsui Leasing, repayable between 2021 and 2024, and (4) Tower and its affiliates had other capital and operating leases in the amount of approximately \$85 million repayable between 2021 and 2032. Carrying such an amount of long-term debt may have significant negative consequences on our business, including:

- limiting our ability to fulfill our debt obligations and other liabilities;
- requiring the use of a substantial portion of our cash to service our indebtedness rather than investing our cash to fund our strategic growth opportunities and plans, working capital and capital expenditures;
- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete;
- placing us at a competitive disadvantage with respect to less leveraged competitors and competitors that have better access to capital resources;
- volatility in our non-cash financing expenses due to increases in the fair value of our debt obligations;
- fluctuations of the payable amounts in USD of the JP Loan or other expenses which are denominated in JPY; and
- potential enforcement by the lenders of their liens against our respective assets, as applicable, if an event of default occurs.

In order to service our debt, the applicable interest it carries and other liabilities and obligations and/or improve its terms and conditions and/or invest in strategic opportunities for growth and/or business development activities, in addition to our cash on hand and expected cash flow generation from operating activities, we may decide to obtain funds from additional sources including debt vehicles and/or re-financing, sale of new securities, sale of intellectual property and/or intellectual property licensing, as well as additional financing alternatives. However, there is no assurance that we will be able to obtain sufficient funding, if at all, from the financing sources detailed above or other sources in a timely manner (or on commercially reasonable terms) in order to allow us to fund our growth plans and/or cover, in a timely manner, all our costs, capital expenditure investments and all of our scheduled debt detailed above, liabilities and obligations, which may adversely affect our financial position and operations.

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

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

- fluctuations in the level of revenues from our operating activities;
- fluctuations in the collection of receivables;
- timing and size of payables;
- the timing and size of capital expenditures;
- the net impact of JPY/ USD fluctuations on our JPY income and JPY cost;
- the repayment schedules of our debt service obligations;
- our ability to fulfill our obligations and meet performance milestones under our agreements; and
- fluctuations in the USD to NIS exchange rate.

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

We depend on the continued services of our senior executive officers, senior managers and skilled technical and other personnel, and there is intense competition for the services of these personnel in the semiconductor industry. Our business could suffer if we lose the services of some of these senior executives and key personnel due to resignation, medical absence, illness or other reasons, and cannot find, hire and integrate adequate replacement senior executives and key personnel in a timely manner.

***We do not typically operate with any significant backlog, which makes it difficult for us to forecast our revenues and margins in future periods.***

Our customers generally do not place purchase orders far in advance, partly due to the cyclical nature of the semiconductor industry. Since our expense levels are based in part on our expectations of future revenues, we may be unable to adjust costs in a timely manner to compensate for revenue shortfalls caused by cancellations, rescheduling of orders or lower actual orders than quantities forecasted. Rescheduling may relate to quantities or delivery dates, and, sometimes, to the specifications of the products we are shipping. Consequently, we cannot be certain that orders on backlog will be shipped when expected or at all.

We expect that, in the future, our revenues in any quarter will continue to be substantially dependent upon purchase orders received in the immediately preceding quarter or two. We cannot assure you that any of our customers will continue to place orders with us in the future at the same levels as in prior periods. For these reasons, our backlog at any given date may not be a reliable indicator of our future revenues and, as a result, revenue and margins' forecasts, targets and guidance that we provide from time to time, may fall short of expectations.

***Because we may manufacture wafers based on forecasted demand, rather than actual orders from customers, we may be left with excess inventory.***

We target manufacturing wafers in an amount matching each customer's specific purchase order; however, on occasion, we may produce wafers in excess of a customer's orders based on forecasted customer demand, because we may forecast future excess demand or because of future capacity constraints. If we manufacture more wafers than are actually ordered by customers, we may be left with excess inventory that may ultimately become obsolete and must be scrapped or sold at a significant discount. Significant amounts of obsolete inventory may have a negative impact on our financial results.

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

Our sales cycles, which we measure from first contact with a customer to first shipment of a product ordered, vary substantially and may last longer than two years, particularly for new technologies. In addition, even after we make initial shipments of prototype products, it may take several more months to reach full production of the product. As a result of these long sales cycles, we may be required to invest substantial time and incur significant expenses before receiving any product orders and related revenue. If orders ultimately received are significantly lower than our expectations, we will have excess capacity that we may not be able to fill within a short period of time, resulting in lower utilization of our facilities. In addition to the revenue loss, we may be unable to adjust our costs in a timely manner to align with the lower revenue, since a large portion of our cost is fixed cost, which remains constant irrespective of the number of wafers actually manufactured, which may adversely affect our operating results and financial condition.

***If we are unable to purchase equipment and/or raw materials, we may not be able to manufacture our products in a timely fashion.***

To increase the production capability and maintain the quality of production in our facilities, we must procure additional equipment. In periods of high market demand, the lead times from order to delivery of manufacturing equipment could be as long as 12 to 18 months. We also procure used equipment, which can take a long time to qualify to the manufacturing process, potentially delaying the manufacture of our products. In addition, our manufacturing processes use many raw materials, including silicon wafers, chemicals, gases and various metals, and require large amounts of fresh water and electricity. Shortages in supplies of manufacturing equipment and raw materials could occur for various reasons, including an interruption of supply due to a global pandemic or increased industry demand. Any such shortage could result in production delays that may result in a loss of existing and/or potential new customers and/or a halt of the manufacturing lines, which may have a material adverse effect on our business and financial results.

***Our exposure to currency exchange and interest rate fluctuations may impact our costs and financial results.***

We operate our fabs in three different regions: Japan, the United States and Israel. The functional currency of the entities operating the fabs in the United States and Israel is the USD. The functional currency of our subsidiary in Japan is the JPY. Our income, costs, assets and liabilities, are denominated mainly in USD, JPY and NIS, our revenues are denominated mainly in USD and JPY and our cash from operations, investing and financing activities are denominated mainly in USD, JPY and NIS. We are, therefore, exposed to the risk of JPY and NIS currencies' exchange rate fluctuations in Japan and Israel which may have a material effect on our cost and financial results due to periodic revaluation or evaluation of assets, liabilities, cost and income, in these currencies.

The USD cost of our operations in Israel is influenced by changes in the USD-to-NIS exchange rate with respect to costs that are denominated in NIS. Appreciation of the NIS against the USD has the effect of increasing the cost of some of our Israeli purchases and NIS-denominated labor costs in USD terms, which may lead to erosion in our profit margins. We use foreign currency transactions to partially hedge a portion, but not all of this currency exposure, to be contained within a pre-defined fixed range. In addition, we executed swap hedging transactions to fully hedge our exposure to the fluctuation of the USD against the NIS as far as it relates to our non-convertible Series G debentures which are denominated in NIS.

The majority of TPSCo's revenues are denominated in JPY and the majority of the expenses of TPSCo are in JPY, which limits the exposure to fluctuations of the USD / JPY exchange rate on TPSCo's results of operations as the impact on the revenues is mostly offset by the impact on the expenses. In order to mitigate a portion of the net exposure to the USD / JPY exchange rate over the net profit margins, we have entered into hedging transactions which partially hedge our exposure to the currencies' fluctuation to be contained within a pre-defined fixed range.

In addition to currency exchange fluctuations, if any of TPSCo's banks incur increased costs in financing a credit facility due to changes in law or the unavailability of foreign currency, such bank may exercise its right to increase the interest rate on the credit facility or require us to bear such increased cost as provided for in the applicable credit facility agreement.

We also hold a securities investment portfolio, including interest bearing bonds and notes. An increase in the interest rates globally and other market changes may result in a reduced market value of these bonds and notes, thereby creating financing losses for us if we are unable to mitigate exposure, react to the market changes promptly and adjust our securities investment portfolio components in a timely manner.

***We depend on intellectual property to succeed in our business, including intellectual property owned by us as well as intellectual property of third parties.***

We depend on intellectual property in order to provide certain foundry services and design support to our customers. The process of applying for patents to obtain patent protection may take a long time. We cannot assure you that patents will be issued for pending or future applications or that, if patents are issued, they will not be challenged, invalidated or circumvented or that the rights granted under the patents will provide us with meaningful protection or any commercial advantage. In addition, we cannot assure you that other countries in which we market our services and products will respect our intellectual property rights to the same extent as the United States. We cannot assure you that we will, at all times, be able to enforce our patents or other intellectual property rights, and it may be difficult for us to protect our intellectual property from misuse or infringement by other companies. Further, we cannot assure you that courts will uphold our intellectual property rights or enforce the contractual arrangements that we have entered into to protect our proprietary technology, which may reduce our opportunities to generate revenues. In the event that we are unable to enforce our intellectual property rights, our business may be harmed.

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

- attempting to negotiate cross-license agreements, which we might not succeed in negotiating or consummating;
- acquiring licenses to the allegedly infringed patents, which may not be available on commercially reasonable terms, if at all;
- discontinuing use of certain process technologies, architectures, or designs, which could cause us to stop manufacturing certain integrated circuits if we are unable to design around the allegedly infringed patents;



- litigating the matter in court, which may result in substantial legal fees and paying substantial monetary damages in the event we lose; or
- developing non-infringing technologies, which may not be feasible.

Any one or several of these alternatives may place substantial financial and other burdens on us and hinder our business. If we fail to obtain certain licenses or if we are involved in litigation relating to alleged patent infringement or other intellectual property matters, it may prevent us from manufacturing particular products or using particular technologies, which may adversely impact our business and revenues.

***From time to time, we are a party to litigation that may require management time and effort.***

From time to time, we are a party to litigation incidental to the conduct of our ongoing business, including class actions, disputes with customers, suppliers, landlords, or other third parties. Litigation requires a certain amount of management time and effort which may adversely affect our business by diverting management focus from business needs.

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

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

Our business is subject to a variety of laws and governmental regulations in Israel, the U.S. and Japan relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in our factories. If we fail to use, discharge or dispose of hazardous materials appropriately in accordance with applicable environmental laws or regulations, or if such laws change in the future, we may be subject to substantial liability or may be required to suspend or significantly modify our manufacturing operations, which may adversely impact our business and revenues.

***Our business strategy is premised on the increasing use of outsourced foundry services by both fabless semiconductor companies and integrated device manufacturers on specialty process technologies, which may change in the future.***

We operate as an independent semiconductor foundry focused primarily on specialty process technologies. Our business model assumes that demand for these processes within the semiconductor industry will grow and follow the broader trend towards outsourcing foundry operations. If our assumption does not prove applicable, our business and financial results may be adversely impacted.

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

We have established relationships with electronic design automation vendors and third-party design service companies to develop complete design kits that our customers can use to meet their design needs using our process technologies. Our ability to meet our customers' design needs successfully, including their schedule and budget requirements, depends in part on the availability and quality of the relevant services, tools and intellectual property provided by these vendors and providers. Difficulties or delays in these areas may adversely affect our ability to meet our customers' needs, thereby potentially harming our business. In addition, with respect to third party intellectual property that is required for the manufacture of our products, if problems or delays arise with respect to the timely development, quality and provision thereof to us, the design and production of our customers' products may be delayed, resulting in underutilization of our capacity. If any of our intellectual property vendors goes out of business, liquidates, merges with, or is acquired by, another company that discontinues the vendor's previous line of business, or if we fail to maintain or acquire licenses to such intellectual property for any other reason, our business may be adversely affected.

***Compliance with existing or future governmental regulations may reduce our sales or increase our manufacturing costs.***

The export of semiconductors that we manufacture may be subject to U.S., Israeli and/or Japanese export control and other regulations established by other countries. Compliance with existing or evolving U.S., Israeli, Japanese or other applicable governmental regulations or obtaining timely domestic or foreign regulatory approvals or certificates may materially disrupt our business by reducing our sales, requiring extensive modifications to processes that we use in our product manufacturing, which could increase our manufacturing costs or require extensive modifications to our customers' products. We may not export products using or incorporating controlled technology without obtaining an export license, which may not always be granted. These restrictions may make foreign competitors facing less stringent controls on the export of their products more competitive in the global market. The relevant government may not approve any pending or future export license requests.

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

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

***A workforce that is unionized may have an adverse impact on our manufacturing costs as well as on our operations by work stoppages, strikes or other collective actions which may disrupt the fabs' production and adversely affect the fabs' performance and our operational and financial results.***

Significant portions of the employees at the Newport Beach, California fab and at TPSCO's fabs in Japan are represented by unions and covered by collective bargaining agreements. In addition, employees at our fabs in Israel, who currently are not members of any union, may wish to join a union in the future. We cannot predict the effect that union representation or future organizational activities will have on these fabs' manufacturing cost and business. We cannot assure you that our fabs will not experience a material work stoppage, strike or other collective action in the future, or incur increased costs in connection with the renewal of such bargaining agreements or other potential union activities, which may disrupt their production and adversely affect our fabs' manufacturing costs, operational performance metrics, and our operational and financial results.

***Climate change may negatively affect our business.***

There is increasing concern regarding climate change and its potential dramatic effects on human activity if no aggressive remediation steps are taken. Legislative developments with respect to reductions in greenhouse gas emissions may result in increased energy, transportation and raw material costs. Scientific examination of, political attention to, and rules and regulations on, issues surrounding the existence and extent of climate change may result in increased production costs due to increase in the prices of energy and introduction of energy or carbon tax. A variety of regulatory developments have been introduced that focus on restricting or managing emissions of carbon dioxide, methane and other greenhouse gases. Enterprises may need to purchase new equipment at higher costs or raw materials with lower carbon footprints. These developments and further legislation that is likely to be enacted, such as changes in environmental regulations on the use of per fluorinated compounds, may increase our production costs, which may adversely affect our results of operation and financial condition.

***Compliance with US rules and regulations concerning conflict minerals may affect our ability or the ability of our suppliers to purchase raw materials at an effective cost and may adversely affect our business.***

Our industry relies on raw materials that consist of, contain or incorporate certain minerals sourced from the Democratic Republic of Congo (“DRC”) or adjoining countries that are subject to regulation. These minerals are commonly referred to as conflict minerals. Conflict minerals that may be used by our suppliers include Columbite-tantalite (derivative of tantalum [Ta]), Cassiterite (derivative of tin [Sn]), gold [Au], Wolframite (derivative of tungsten [W]), and Cobalt [Co]. We are currently subject to the requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 that require due diligence and disclosure as to whether our products contain conflict minerals. It is expected that the SEC under the Biden administration will renew focus on the US conflict minerals rules and other responsible sourcing measures. Any changes effected by the Biden administration concerning the use of conflict minerals could adversely affect the sourcing, availability and pricing of the materials used in the manufacture of our products. In addition, we will likely incur additional costs to comply with any new conflict minerals rules, including costs related to disclosure requirements and conducting diligence procedures to determine the sources of conflict minerals that may be used in, or necessary to the production of, our products and, if applicable, potentially making changes to our products, processes or sources of supply as a consequence of such verification activities. It is also possible that we may face reputational harm and/or may lose customers if we determine that certain of our products contain minerals not determined to be conflict-free and are unable to alter our products, processes or sources of supply to avoid use of such materials, which may adversely impact our revenue and business.

***Security, cyber and privacy breaches may hurt our business and operations.***

Any security breach, including those resulting from a cybersecurity attack, such as occurred in September 2020 (see under “Item 5. Operating and Financial Review and Prospects—A. Operating Results—Overview”), or any unauthorized access, unauthorized usage, virus or similar breach or disruption could result in the loss of confidential information, damage to our fab operations, damage to our reputation, early termination of our contracts, litigation, regulatory investigations or other liabilities. If our security measures are breached as a result of third-party action, employee error, malfeasance or otherwise and, as a result, someone obtains unauthorized access to our, our customers’ or any third party’s confidential information, our reputation may be damaged, we may face potential disruption and loss, especially due to the possible substantial damage if operations would not be quickly restored and our business may suffer, and we could incur significant liability.

Techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target. As a result, we may be unable to anticipate these techniques or to implement adequate preventative measures. If an actual or perceived security breach occurs, the market’s perception of our security measures may be harmed and we could lose sales and customers as well as incur operational damage to our machines and/or products.

**Risks Related to Our Securities**

***Fluctuations in the market price of our traded securities may significantly affect our ability to raise new capital.***

The capital markets, in general, have experienced volatility that often has been unrelated to the operating performance of the traded companies. The share price of many companies in the semiconductor industry has experienced wide fluctuations, which has often been unrelated to the operating performance of such companies. These broad market and industry fluctuations may adversely affect the market price of our equity and debt traded securities, regardless of our actual operating performance.

In addition, it is possible that our operating results may differ from the expectations of public market analysts and investors, which may adversely affect the price of our securities. Adverse impact to the market price of our securities may negatively impact our ability to raise new capital in order to finance our growth plans, obligations and liabilities and/or re-finance our debt, and/or may cause us to receive less favorable terms than expected to the extent we will decide to raise any capital.

***We are a foreign private issuer and, as a result, the public reporting and disclosure rules to which we are subject, and the corporate governance practices that we are permitted to follow, may provide less protection to our investors than is accorded to investors under rules applicable to domestic U.S. issuers.***

We report under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) as a foreign private issuer, which means we are exempt from certain provisions of the Exchange Act that are applicable to U.S. public companies, including the proxy rules and the rules requiring the filing with the SEC of quarterly reports on Form 10-Q and current reports on Form 8-K. We intend to furnish quarterly reports to the SEC on Form 6-K for so long as we are subject to the reporting requirements of Section 13(g) or 15(d) of the Exchange Act, although the information we furnish may not be the same as the information that is required in quarterly reports on Form 10-Q for U.S. domestic issuers. Foreign private issuers are also exempt from Regulation FD (Fair Disclosure), aimed at preventing issuers from making selective disclosures of material information. Also, as a foreign private issuer, we are permitted to follow certain home country corporate governance practices instead of those otherwise required under the Listing Rules of the Nasdaq Stock Market for domestic U.S. issuers. The public reporting and disclosure rules to which we are subject under the Exchange Act, and the corporate governance practices that we are permitted to follow, may provide less protection to our investors than is accorded to investors under rules applicable to domestic U.S. issuers.

***We do not expect to pay any dividends in the foreseeable future.***

We currently intend to retain future earnings and our existing cash balance to finance our growth and acquisition strategy, as well as capacity growth and our ongoing operations, and we do not anticipate paying dividends in the foreseeable future. In addition, the Companies Law imposes restrictions on our ability to declare and pay dividends. Furthermore, under the indenture for our Series G Debentures, a distribution of dividends is subject to us satisfying certain financial covenants and is subject to certain limitations. Therefore, you should not rely on an investment in our ordinary shares if you require and/or expect dividend income from your investments.

## **Risks Related to Our Operations in Israel**

### ***Instability in Israel may harm our business.***

Fab 1 and Fab 2 manufacturing facilities, our design center and certain of our corporate and sales offices are located in Israel. In addition, a number of our officers and directors are residents of Israel. Accordingly, political, economic and military conditions in Israel and the surrounding region may directly affect our business.

Since the establishment of the State of Israel in 1948, Israel has been subject to armed conflicts with neighboring countries, as well as terrorist activities, with varying levels of severity. Parties with whom we do business have sometimes declined to travel to Israel during periods of heightened unrest or tension, forcing us to make alternative arrangements where necessary. In addition, the political and security situation in Israel may result in parties with whom we have agreements claiming that they are not obligated to perform their commitments under those agreements pursuant to force majeure provisions. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its trading partners may adversely affect our operations and make it more difficult for us to do business and raise capital. Furthermore, we could experience serious disruption to our manufacturing in Israel if acts associated with any such conflicts result in any serious damage to such manufacturing facilities. In addition, there may also be protests against or sanctions imposed on the State of Israel which may adversely impact our business. Our business interruption insurance may not adequately compensate us for losses that we may incur, and any losses or damages incurred by us may have a material adverse effect on our business. Furthermore, several countries restrict business with the State of Israel and with Israeli companies, which may have an adverse impact on our operating results and financial condition. In addition, actual or perceived political instability in Israel or any negative changes in the political environment, may individually or in the aggregate adversely affect the Israeli economy and, in turn, our business, financial condition, results of operations and prospects.

In the event of severe unrest or other conflict, Israeli personnel could be required to serve in the military for extended periods of time. Many male Israeli citizens, including most of our male employees under the age of 40, are subject to compulsory military reserve service and may be called to active duty under emergency circumstances. In response to increases in terrorist activity, there have been periods of significant call-ups of Israeli military reservists, and it is possible that there will be additional call-ups in the future. Our operations in Israel could be disrupted by the absence, for a significant period of time, of one or more of our key employees or a significant number of our other employees due to military service. Such disruption may harm our operations and our business.

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

We operate our Israeli manufacturing facilities seven days a week pursuant to an exemption (which we need to timely renew) from the law that requires businesses in Israel to be closed from sundown on Friday through sundown on Saturday. In addition, our business license certificate issued by municipality of Migdal Ha'emek, Israel is required to be renewed periodically. If such exemption or our business license are not renewed in the future, our financial results and business may be harmed.

***It may be difficult to enforce a US judgment against us, our officers and directors or to assert US securities law claims in Israel or serve process on our non-U.S. resident officers and directors.***

Tower is incorporated in Israel and most of its executive officers and directors are not residents of the United States (excluding the employees of its U.S. subsidiaries), and a majority of its assets (excluding its U.S. subsidiaries and their assets) and the assets of its non-U.S. resident directors and officers are located outside the United States. Service of process upon us and/or our non-U.S. resident directors and/or officers may be difficult to obtain within the United States. Additionally, a judgment obtained in the United States against Tower and/or any of our non-U.S. executive officers and/or directors, including one based on the civil liability provisions of the U.S. federal securities laws, may not be collectible in the United States (except to the extent that it relates to Tower's US subsidiaries, its assets or employees) and may not be enforced by an Israeli court. Additionally, it may be difficult to assert claims under U.S. securities laws or obtain a judgment based on civil liability provisions under U.S. federal securities laws claimed in original actions instituted in Israel. Israeli courts may refuse to hear a claim based on a violation of U.S. securities laws against us or our non-U.S. officers or directors because Israel may not be the most appropriate forum to bring such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact, which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law. There is little binding case law in Israel addressing the matters described above.

***Provisions of Israeli law may delay, prevent or otherwise impede a merger with, or an acquisition of, our company, which may delay or prevent a change of control, even when the terms of such a transaction are favorable to us and our shareholders.***

Provisions of Israeli law could have the effect of delaying or preventing a change in control and may make it more difficult for a third-party to acquire us, even if doing so would be considered to be beneficial by some of our shareholders. For example, Israeli corporate law regulates mergers, requires tender offers for acquisitions of shares of a public company above specified thresholds, requires special approvals for transactions involving directors, officers or significant shareholders and regulates other matters that may be relevant to such types of transactions. Furthermore, Israeli tax considerations may make potential transactions unappealing to Tower or to its shareholders whose country of residence does not have a tax treaty with Israel exempting such shareholders from Israeli tax. These and other similar provisions may delay, prevent or impede a merger with or an acquisition of our company, even if such a merger or acquisition would be beneficial to Tower or its shareholders.

***The rights and responsibilities of our shareholders will be governed by Israeli law which differs in some material respects from the rights and responsibilities of shareholders of U.S. corporations.***

The rights and responsibilities of the holders of our ordinary shares are governed by our articles of association and by Israeli law. These rights and responsibilities differ in some material respects from the rights and responsibilities of shareholders in typical U.S. registered corporations. In particular, a shareholder of an Israeli company has certain duties to act in good faith and in a customary manner in exercising his or her rights and fulfilling his or her obligations towards the company and other shareholders and to refrain from abusing its power in the company, including, among other things, in voting at the general meeting of shareholders on amendments to a company's articles of association, increases in a company's authorized share capital, mergers and certain transactions requiring shareholders' approval under the Companies Law. These provisions may be interpreted to impose additional obligations and liabilities on holders of our ordinary shares that are not typically imposed on shareholders of U.S. corporations.

#### **ITEM 4. INFORMATION ON THE COMPANY**

##### **A. HISTORY AND DEVELOPMENT OF THE COMPANY**

We are a pure-play independent specialty foundry dedicated to the manufacture of semiconductors. Typically, pure-play foundries do not offer products of their own, but focus on producing integrated circuits, or ICs, based on the design specifications of their customers. We manufacture semiconductors for our customers primarily based on third party designs. We currently offer the process manufacture geometries of 0.35, 0.50, 0.55, 0.60, 0.80-micron and above on 150-mm wafers and 0.35, 0.18, 0.16, 0.13 and 0.11-micron on 200-mm wafers and 65 nanometer and 45 nanometer on 300-mm wafers. We also provide design support and complementary technical services. ICs manufactured by us are incorporated into a wide range of products in diverse markets, including consumer electronics, personal computers, communications, automotive, industrial, aerospace and medical device products.

We are focused on establishing leading market share in high-growth specialized markets by providing our customers with high-value wafer foundry services. We manufacture standard analog complementary metal oxide semiconductor ("CMOS") process technology, which is a widely used method of producing ICs, and we specialize in specific technologies including CMOS image sensors, non-imaging sensors, including sensors on Gallium Nitride, micro-electromechanical systems (MEMS), wireless antenna switch Silicon-on-Insulator (SOI), mixed-signal, radio frequency CMOS (RFCMOS), bipolar CMOS (BiCMOS), and silicon-germanium BiCMOS (SiGe BiCMOS or SiGe), silicon photonics, high voltage CMOS, radio frequency identification (RFID) technologies and power management. To better serve our customers, we have developed and are continuously expanding our technology offerings in these fields. Through our experience and expertise gained during more than twenty-five years of operation, we differentiate ourselves by creating a high level of value for our customers through innovative technological processes, design and engineering support, competitive manufacturing indices, and dedicated customer service.

Tower was founded in 1993, with the acquisition of National Semiconductor's 150-mm wafer fabrication facility located in Migdal Haemek, Israel, and commenced operations as an independent foundry. Since then, we have significantly upgraded our Fab 1 facility, equipment, capacity and technological capabilities with process geometries ranging from 1.0-micron to 0.35-micron and enhanced our process technologies to include CMOS image sensors, embedded flash, advanced analog, RF (radio frequency) and mixed-signal technologies. We integrated advanced single Poly NVM into the Fab 1 process flows and developed a GaN technological platform (GaN on Si) suitable for fabrication of HEMT transistors, and gas and UV sensors.

In 2003, we commenced production in Fab 2, a wafer fabrication facility we established in Migdal Haemek, Israel. Fab 2 supports geometries ranging from 0.35 to 0.13-micron, using advanced CMOS technology, including CMOS image sensors, embedded flash, advanced analog, RF (radio frequency), and specifically RF switches on SOI, power platforms and mixed-signal technologies.

In September 2008, we merged with Tower NPB, which holds 100% of NPB Co. and operates Fab 3 located in Newport Beach, California, US. Fab 3 focuses on specialty process technologies for the manufacture of analog and mixed-signal semiconductor devices, and supports geometries ranging from 0.50 to 0.13-micron. NPB Co.'s specialty process technologies include advanced analog, radio frequency, high voltage, bipolar, SOI and silicon germanium bipolar, complementary metal oxide ("SiGe") semiconductor processes. ICs manufactured at Fab 3 are incorporated into a wide range of products, including cellular phones, wireless local area networking devices, digital TVs, set-top boxes, gaming devices, switches, routers and broadband modems.

In March 2014, we acquired from Panasonic 51% of a newly established company, TPSCo, that manufactures products for Panasonic and other third party customers, using three semiconductor factories located in Hokuriku Japan (Uozu E, Tonami CD and Arai E), which factories were established by Panasonic. Pursuant to the transaction, Panasonic transferred its semiconductor wafer manufacturing process and capacity tools (8 inch and 12 inch) at the three fabs to TPSCo, and entered into a five-year manufacturing agreement for the manufacture of products for Panasonic by TPSCo, which was extended in March 2019 for an additional three years, under amended terms, including a revised pricing structure.

In February 2016, we acquired Fab 9, located in San Antonio, Texas, US, from Maxim. The assets and related business that we acquired from Maxim are held and conducted through one of our wholly-owned US subsidiaries, Tower SA. Fab 9 supports process geometries ranging from 0.80 to 0.18 for the manufacture of products using CMOS, power management and analog based technologies.

Our executive offices and Israeli manufacturing facilities are located in the Ramat Gavriel Industrial Park, Shaul Amor Street, Post Office Box 619, Migdal Haemek, 2310502 Israel, and our telephone number is 972-4-650-6611. Our agent for service of process in the United States is Tower Semiconductor USA, Inc. located at 2570 North First Street, Suite 480 San Jose, CA 95131.

For more information about us, go to [www.towersemi.com](http://www.towersemi.com). Information on our website is not incorporated by reference in this annual report.

## **B. BUSINESS OVERVIEW**

### **INDUSTRY OVERVIEW**

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

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

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

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

Integrating analog and digital components on a single, mixed-signal semiconductor enables the development of smaller, more highly integrated, power-efficient, feature-rich and cost-effective semiconductor devices but presents significant design and manufacturing challenges. For example, combining high-speed digital circuits with sensitive analog circuits on a single, mixed-signal semiconductor can increase electromagnetic interference and power consumption, both of which cause a higher amount of heat to be dissipated and decrease the overall performance of the semiconductor. Challenges associated with the design and manufacture of mixed-signal semiconductors increase as the industry moves toward more advanced process geometries. As a result, analog and mixed-signal semiconductors can be complex to manufacture and typically require sophisticated design expertise, strong application specific experience and a comprehensive intellectual property portfolio. In addition, today’s analog market is driven strongly by growing sensitivity to environmental requirements, such as the conservation of energy and human well-being. Low power consumption is demonstrated in applications related to the systems enabled with Artificial Intelligence (AI) and edge computing using AI which allow for the analysis and filtering of data closer to the sensors such that only the relevant data is sent to the cloud. The AI edge devices are incorporated into products with sensors related to Internet of Things (IoT), in particular ASICs with embedded sensors, medical devices and applications focused on entertainment, infotainment and safety, which combine analog and digital technology.

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



The enormous costs associated with modern fabs, combined with the increasing demand for complex ICs, has created an expanding market for outsourced foundry manufacturing services. Foundries can cost-effectively supply advanced ICs to even the smallest fabless companies by creating economies of scale through pooling the demand of numerous customers. In addition, customers whose IC designs require process technologies other than standard digital CMOS have created a market for independent foundries that focus on providing specialized process technologies. Specialty process technologies enable greater analog content and can reduce the die size of an analog or mixed-signal semiconductor, thereby increasing the number of dies that can be manufactured on a wafer and reducing final die cost. In addition, specialty process technologies can enable increased performance, superior noise reduction and improved power efficiency of analog and mixed-signal semiconductors compared to traditional standard CMOS processes. These specialty process technologies include advanced analog CMOS, specialized RF devices on SOI, radio frequency CMOS (RF CMOS), CMOS image sensors (CIS) and other types of original sensors, high voltage CMOS, bipolar CMOS (BiCMOS), silicon germanium BiCMOS (SiGe BiCMOS), bipolar CMOS double-diffused metal oxide semiconductor (BCD), NVM technologies and special devices for enabling chips with AI. We have mastered the skills required to work in this technology intensive environment which is rapidly changing. We work closely with our customers to provide them with unique and specialized solutions needed for their business success.

Foundries may also offer customers competitive complementary services through design, testing, and other technical services.

## **MANUFACTURING PROCESSES AND SPECIALIZED TECHNOLOGIES**

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

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

We manufacture using specialty process technologies, mostly based on CMOS process platforms with added features to enable special and unique functionality, decreased footprint of products, competitive performance and cost advantages for analog and mixed-signal semiconductors. Products made with our specialty process technologies are typically more complex to manufacture than products made using standard process technologies employing similar technology nodes. Generally, customers that use our specialty process technologies cannot easily transfer designs to another foundry because the analog characteristics of the design are dependent upon the specific process technology used for manufacturing. The specialty process design infrastructure is complex and includes design kits and device models that are specific to the foundry in which the process is implemented and to the process technology itself. In addition, the relatively small engineering community with specialty process expertise and the significant investment required for development or transfer and maintenance of specialty process technologies has limited the number of foundries capable of offering specialty process technologies. We believe that our specialized process technologies combined with dedicated design enablement capabilities distinguish our IC manufacturing services and attract industry-leading customers.

We also offer process transfer services to IDMs that wish to manufacture products using their own process and do not have sufficient capacity in their own fabs. Our process transfer services are also used by fabless companies that have proprietary process flows that they wish to manufacture at additional manufacturing sites for purposes of geographic diversity or for the manufacture of an advanced technology node that is very costly to build themselves. Our process transfer services include development, transfer, and extensive optimization as defined by customer needs.

With our world-class engineering team, well established transfer methodologies and vast manufacturing experience, we offer state of the art production lines for core bulk CMOS and specialized technologies such as RF SOI, integrated into back-end-of-line (BEOL) TMR/MTJ (magnetic tunnel junction) sensors, SiGe and MEMS, among others.

We are a trusted, customer-oriented service provider that has built a solid reputation in the foundry industry over more than twenty-five years. We have built strong relationships with customers. Our consistent focus on providing high-quality, value-added services, including engineering and design support, has allowed us to attract customers that seek to work with a proven provider of foundry solutions. Our emphasis on working closely with customers and accelerating the time-to-market and performance of their next-generation products has enabled us to maintain a high customer retention rate, while increasing the number of new customers and new products for production.

We continuously target to expand our manufacturing footprint and business by attracting new customers that will utilize our existing manufacturing facilities, some of which have recently implemented further capacity expansion projects, as well as by acquiring external capacity through acquisitions of existing or newly established fabs, as we have done in the past, with or without third-party collaboration and/or funding (including cash, equity or in-kind investment).

We also offer from time to time a wide range of support services for the establishment of new semiconductor fabrication facilities or the ramp up of existing facilities owned by third parties, using our technological, operational and integration expertise, for which we receive payments based on the achievement of pre-defined milestones and may also be entitled to certain capacity allocation and other rights, all subject to definitive agreements underlying such projects.

We derived a significant amount of our revenues for the year ended December 31, 2020 from our target specialized markets: RF CMOS, including SiGe power IC and discrete devices, CMOS image sensors, wireless communication and high performance analog. We are highly experienced in these markets, having been an early entrant and having developed unique proprietary technologies, including through licensing and joint development efforts with our customers and other technology companies.

The specific process technologies that we currently focus on include: radio frequency CMOS (RF CMOS), including SiGe CMOS image sensors (CIS) and integration of other types of sensors, advanced analog CMOS, radio frequency identification (RFID), bipolar CMOS (BiCMOS), silicon germanium (SiGe BiCMOS), high voltage CMOS, silicon-on-insulator (SOI) platforms for power management, RF and sensor applications, LDMOS transistors, MEMS and wafer bonding technologies, as well as technologies for enabling AI, in particular original Y-Flash memristors.

#### ***CMOS Image Sensors***

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

We are currently actively involved in the high-end sensor and applications specific markets, which include applications such as high end video, high end photography, industrial machine vision, dental x-ray, medical x-ray, automotive sensors, security sensors and time of flight (ToF) three dimensional sensors for entertainment, commercial and industrial applications, as well as image sensors with record frame rates for registration of ultra-fast processes.

We gained the market potential using CMOS process technology for a digital camera-on-a-chip, which integrates a CMOS image sensor, filters and digital circuitry. Upon entering the CMOS image sensor foundry business, we utilized research and development work that had been ongoing since 1993. Our services include a broad range of turnkey solutions and services, including silicon proven pixel services, optical characterization of a CMOS process, an innovative patented stitching manufacturing technique and prototype packaging. The CMOS image sensors that we manufacture include 110nm on 200mm wafers and 65nm on 300mm wafers with pixel sizes down to 1.12 micron utilizing dual light pipe technology, delivering outstanding image quality for a broad spectrum of digital imaging applications.

Specifically, our CIS portfolio includes pixels ranging from 1.12 micron up to 150 micron, all developed by us. We provide both rolling shutter and global shutter pixels. The latter are used mainly in the industrial sensor and in the three-dimensional sensor markets. Our advanced technology used in CMOS image sensors enables improved optical and electrical performance such as low dark current, low noise, high well capacity, high quantum efficiency and high uniformity of pixels utilizing deep sub-micron process technologies, enabling the manufacturing of very sophisticated and high performance camera module solutions. Our state-of-the-art pixels are used in a variety of new markets, such as the high-end machine vision cameras and the rapidly growing ToF 3D sensor market. In addition, our advanced global shutter technology and global shutter pixels, as small as 2.5um, enable excellent performance, especially, very high shutter efficiency.

For the X-ray market, we offer our innovative patented “stitching” technology on 0.18-micron process as well as on 65nm technology on 300mm wafers and a variety of 15 to 150-micron pixels that are optimized for X-ray applications. These pixels are used by our customers in dental (intra and extraoral) and other medical X-ray products (such as C-Arm surgery machines, angiography and mammography) as well as in the industrial NDT (Not Destructive Testing) X-Ray market.

Our stitching technology, a cornerstone of our X-Ray sensors technology, enables semiconductor exposure tools to manufacture single ultra-high-resolution CMOS image sensors containing millions of pixels at sizes far larger than the photo exposure tool (scanner) field size.

This technology is used by us in the manufacturing of large X-Ray sensors (up to one die per wafer) on 8” and 12” wafers as well as high-end large format sensors with special pixels that we have developed specifically for this market. In addition, this technology is also being used by us in display backplanes, for large virtual reality (VR) displays.

In the past two years, we have completed and qualified our next generation CMOS sensor technology, namely BSI and wafer stacking, which combines a digital CMOS wafer with an imager wafer that is then thinned for backside illumination (BSI) with billions of electrical connections between the two wafers. We now offer both BSI and stacking technologies in 200mm (in cooperation with a third-party that manufactures the BSI part of the process on our wafers, using our own developed BSI technology) and in 300mm in our own facilities at TPSCo.

We specially developed our near Infra-Red imaging technology for gesture recognition systems and a series of spectrally sensitive image sensors, including proximity sensors and sensors sensitive in the UV range. We also announced our iToF (indirect time of flight) technology with outstanding performance parameters for fast autofocus and face recognition functions in mobile devices, which we are ramping up to mass production in 2021.

In addition, we developed SPAD (single photon avalanche diodes) technology for dToF (direct time of flight) LIDAR (light detection and range) applications in mobile devices, smart automotive advanced driver assistance systems (ADAS) and autonomous driving (AD) vehicles. We also further developed our stacked technology to support the stacking of a very advanced technology node CMOS wafer with a state of the art SPAD imager, with pixel level electrical connections between the wafers.

### ***MEMS and Displays***

In the MEMS area, we entered the MEMS microphone market. This is a fast-growing market with microphones being embedded not only in ear buds and cellular phones, but also in many command operated devices. Speech recognition AI is being used in such devices. For high-fidelity speech recognition, differentiated performance of high-dynamic range and low-noise microphones are needed. We are in the initial production ramp up and are moving forward on developments for the best-in-industry signal-to-noise figure of merit.

We also developed MEMS switches technology for fast RF antenna switching and accelerometers for a variety of applications.

The display market is undergoing a dramatic change from LCD-based screens with LED backlighting into micro LED or micro OLED displays, allowing substantially higher dynamic range with true black and higher brightness. The display market spans from small displays, such as smartwatch or VR goggles displays, through smartphone, tablet and laptop displays, to large format TV displays. In today's technology, all of these displays are glass based, where the small ones are usually OLED displays while the large ones are LCD based with LED backlight. The true LED displays, namely, displays where each pixel is a LED, that provide unprecedented performance in illuminance and dynamic range, are extremely expensive and large. The major change expected in the coming decade is the ability to create these from micro LEDs and place them on a backplane in a cost effective way, or even have a monolithic array of micro LEDs as a screen for the small screen applications. Such micro LEDs cannot be performed on glass and the most promising way is to create them on silicon wafers (GaN on silicon). In entering this new display area, we are working on the silicon part of GaN nano tube based LEDs, both pre and post GaN growth. In addition, we use our patented stitched technology for the development of CMOS back plane for large die micro OLED arrays (monolithic approach) and LCOS displays for the virtual reality market.

### ***RF CMOS***

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

Our RF CMOS process technologies have more features than advanced analog CMOS process technologies of our competitors and are well suited for wireless electronics, such as highly integrated transceivers, power amplifiers and television tuners. These process technologies generally incorporate integrated inductors, high performance variable capacitors and RF laterally diffused metal oxide semiconductor transistors into an advanced analog CMOS process technology. In addition to the smart process features, our RF offering includes design kits with RF models, device simulation and physical layouts tailored specifically for RF performance. We currently have RF CMOS process technologies in 0.25 micron, 0.18 micron, 0.13 micron and 65 nanometer.

Further, we have RFCMOS process built on silicon-on-insulator (SOI) substrates (RFSOI). These RFSOI process technologies include devices optimized to deliver higher performance and improved isolation relative to devices in our RFCMOS process. We currently have RFSOI process technologies in 0.18 micron, 0.13 micron and 65 nanometer lithography nodes and fabricate various devices, including antenna switches with record FOM (figure of merit) and front end modules. Corresponding chips can be found in various products, including state-of-the-art smartphones, manufactured by leading manufacturers.

### ***BiCMOS for RF and High Performance Analog***

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

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

### ***Silicon Photonics (SiPho)***

Our industry-leading silicon photonics platform targets optical networking and data center interconnect applications. The SiPho process complements the Company's SiGe BiCMOS processes by providing a companion solution able to integrate optical components in the expanding data communication market. The platform enables integration of photodetectors, optical modulators and other optical components that have in the past been assembled in optical modules as discrete components and can now be integrated in a single die potentially lowering cost, reducing footprint and improving performance of advanced optical transceivers.

### ***Power and Power Management ICs***

Our power technologies are generally divided into a low-voltage BCD offering and a high-voltage offering, including 140V Resurf, 200V SOI and 700V ultra-high voltage technologies. Our low-voltage BCD process technologies have more features than advanced analog CMOS processes and are well suited for power and driver semiconductors, such as voltage regulators, battery chargers, power management products and audio amplifiers. These process technologies generally incorporate higher voltage CMOS devices than advanced analog CMOS processes such as 5V, 8V, 12V, 40V and 60V devices, and, in the case of BCD, bipolar devices integrated into an advanced analog CMOS process. We currently have BCD offerings in 0.5 micron, 0.35 micron, 0.25 micron, 0.18 micron and 65 nanometer.

Our higher voltage technologies, which include 140V Resurf, 200V SOI and 700V ultra-high voltage platform, support applications such as gate drivers for discrete high-power transistors and automotive, industrial, AC adaptor and lighting markets.

In addition, we have developed a unique, zero mask adder NVM solution (Y-Flash) specifically for power and power management applications in our 0.18 micron platforms. We have developed a series of Y-flash based modules with record (for the single Poly embedded MTP technologies) memory densities of up to 16kbit, which have been integrated in various power management products of our customers. We have also introduced high density single Poly silicon memory arrays of other intellectual property vendors into our CMOS process flows.

We continue to invest in technology that improves performance and integration level and reduces the cost of analog and mixed-signal products. This includes improving the density of passive elements such as capacitors and inductors, including development of the new passive elements, improving the analog performance and voltage handling capability of active devices, and integrating additional advanced features in our specialty CMOS processes. Examples of such technologies currently under development include GaN technologies for sensor applications and technologies aimed at integrating micro-electro-mechanical-system (MEMS) devices with CMOS, using phase-change materials for more advanced RF switches, scaling the features we offer today to the 65 nanometer process, including the integration of advanced SiGe transistors with 65 nanometer CMOS, and copper metallization.

## **CUSTOMERS, MARKETING AND SALES**

Our marketing and sales strategy seeks to further solidify our position as the leading foundry of high value analog semiconductor solutions, by increasing our market share at existing customers and expanding our global customer base. We have marketing, sales, design support engineers, field application engineers and customer support personnel located in many countries worldwide, who have been hired and assigned to these roles based on their industry experience, customer relationships and understanding of the semiconductor marketplace.

Our sales cycle is generally 9 to 24 months or longer for new customers and can be as short as 6 to 12 months for existing customers. The typical stages in the sales cycle process from initial contact until production are:

- technical evaluation;
- product design to our specifications, including integration of third party intellectual property;
- photomask - design and third-party photomask manufacturing;
- silicon prototyping;
- assembly and test;
- validation and qualification; and
- production.

The primary customers of our foundry and design services are fabless semiconductor companies and IDMs. Our customers include many analog and mixed-signal industry leaders, serving a variety of end market segments. A portion of our product sales are made pursuant to long-term contracts with our customers, under which we agree to reserve manufacturing capacity for certain purchasing commitments. During the year ended December 31, 2020, we had six significant customers that each contributed between 4% to 25% of our revenues. During the year ended December 31, 2019, we had six significant customers that each contributed between 5% to 27% of our revenues. During the year ended 2018, we had four significant customers that each contributed between 7% to 33% of our revenues.

The following table sets forth the geographical distribution, by percentage, of our net revenues for the periods indicated:

	Year ended December 31,		
	2020	2019	2018
United States	44%	52%	52%
Japan	28%	29%	34%
Asia, excluding Japan	22%	15%	10%
Europe	6%	4%	4%
Total	100%	100%	100%

We price our products on a per wafer basis, taking into account the unique value of our technology and its ability to enable customers to differentiate their products, the complexity of the technology, prevailing market conditions, volume forecasts, the strength and history of our relationships with the customer and our current capacity utilization. Most of our customers usually place purchase orders between two to six months before shipment.

To promote our products, technology offering and services, we publish press releases, articles, technology journals and white papers. In addition, we present and participate in panel sessions at industry conferences, hold a variety of regional and international technology seminars, and exhibit at various industry trade shows. We discuss advances in our process technology portfolio and progress on specific relevant programs with our prospective and existing customers, as well as industry analysts and research analysts, on a regular basis.

Our customers use our processes to design and market a broad range of analog and mixed-signal semiconductors for diverse end markets, including wired and wireless high-speed communications, consumer electronics, automotive, medical, security and industrial applications. We manufacture products for a wide range of electronic systems, including but not limited to, high-performance applications, such as antenna switches, transceivers and power management circuits for cellular phones; transceivers and power amplifiers for wireless local area networking products; power management, audio amplifiers and driver integrated circuits for consumer electronics; tuners for digital televisions and set-top boxes; modem chipsets for broadband access devices and gaming devices; serializer/deserializers, or SerDes, for fiber optic transceivers; high end video cameras, dental and medical x-ray vision, industrial cameras, focal plane arrays for imaging applications; infra-red detectors for gesture recognition, controllers for power amplifier and switching chips in cellular phones and wireline interfaces for switches and routers, magnetic field and gas and UV sensors.

## COMPETITION

The global semiconductor foundry industry is highly competitive. We compete most directly in the specialty segment with foundries such as GlobalFoundries (mainly in the RF business), Vanguard Semiconductor, DongBu, X-Fab and Hua Hong Semiconductor. We also compete in some areas with the pure-play advanced technology node-driven foundry service providers such as Taiwan Semiconductor Manufacturing Corporation (“TSMC”), United Microelectronics Corporation (“UMC”) and Semiconductor Manufacturing International Corp. (“SMIC”). These three pure-play semiconductor foundries primarily compete against one another and focus on 12-inch deep-submicron CMOS processing, though they each also have some capacity for specialty process technologies. The rest of the foundry industry, including existing Chinese, Korean and Malaysian foundries, generally target either industry standard 8-inch CMOS processing or specialty process technologies. We also compete with IDMs that have internal semiconductor manufacturing capacity or foundry operations, such as ST, Intel, Samsung, Sony and others that produce ICs for their own use and may allocate a portion of their manufacturing capacity to external foundry customers. Most of the foundries with which we compete are located in Asia-Pacific that benefit from their close proximity to Asian companies involved in the design of ICs and the Asian customer base.

The principal elements of competition in the wafer foundry market are:

- technology offering and future roadmap;
- product performance;
- system level technical expertise;
- research and development capabilities;
- access to intellectual property;
- customer technical support;
- design services;
- product development kits (PDKs);
- manufacturing operational performance;
- quality systems;
- product quality;
- manufacturing yields;
- customer support and service;
- pricing;
- management expertise;
- strategic customer relationships;
- capacity availability; and
- stability and reliability of supply.

Some of our competitors, notably the pure-play advanced technology node-driven foundry service providers, have greater manufacturing capacity, may have greater scope and/or a greater number of research and development resources, better cost structure and greater financial, marketing and other resources. As a result, these companies may be able to compete more aggressively over a longer period of time than us.

We seek to compete primarily on the basis of advanced specialty analog/mixed-signal technology, research and development, breadth of process offering, production quality, technical support, and our design and engineering services. We have a highly differentiated specialty offering and proven track record in analog/mixed-signal markets, which enables us to effectively compete with larger foundry service providers.

Some semiconductor companies have advanced their CMOS designs to 5-10 nanometer. These smaller geometries may provide customers with performance and integration features that may be comparable to, or exceed, features offered by our specialty process technologies, and may be more cost-effective at higher production volumes for certain applications, such as when a large amount of digital content is required in a mixed-signal semiconductor and less analog content is required. Our specialty process technologies will therefore compete with these advanced CMOS processes and some of our potential and existing customers could elect to design these advanced CMOS processes into their next generation products. We are not currently capable, nor do our current plans include, the manufacture of products using CMOS processes at these smaller geometries.



## WAFER FABRICATION SERVICES

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

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

*Mask Making.* The design for each layer of a semiconductor wafer is imprinted on a photographic negative, called a reticle or mask. The mask is the blueprint for each specific layer of the semiconductor wafer. We engage external mask shops for the manufacture of such masks.

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

*Assembly and Test.* After IC manufacture, the wafers are transferred to assembly and test facilities. In the assembly process, each wafer is cut into dies, or individual semiconductors, and tested. Defective dies are discarded, while good dies are packaged and assembled. Assembly protects the IC, facilitates its integration into electronic systems and enables heat dissipation. Following assembly, the functionality, voltage, current and timing of each IC is tested. After testing, the completed IC is shipped either to our customer or to their customer's printed circuit board manufacturing facility. Our customers often use third party service providers for the performance of wafer assembly and testing, and to a smaller extent, part of such process is performed independently by us.

## RESEARCH AND DEVELOPMENT

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

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

Our research and development activities have related primarily to our process, device and design development efforts in all specialty areas that were mentioned above, and have been sponsored and funded by us and in certain cases with the partial participation of the Government of the State of Israel through the IIA, pursuant to the Innovation Law and related regulations and guidelines. Under the terms of the Israeli Government participation and the Innovation Law as currently in effect, a royalty of 3% or up to 5% of the net sales of products and services developed from a project funded by the IIA must generally be paid to the IIA, up to an aggregate of 100% (which may be increased under certain circumstances) of the U.S. dollar-linked value of the grant, plus interest at the rate of 12-month LIBOR. The Innovation Law imposes significant restrictions on manufacturing of products developed with IIA grants outside Israel and on the transfer (including by way of license) of IIA-funded technologies to third parties outside Israel. For example, the transfer or license of IIA-funded technologies to third parties outside Israel requires the prior approval of the IIA, which approval is generally contingent on payment of a redemption fee, calculated according to a formula under the Innovation Law, which may be in the amount of up to six times the grant(s) amount (less paid royalties, if any, and depreciation, but no less than the total amount of grants actually received by us), plus accrued interest.

In addition to the above, we may be required to obtain export licenses before exporting certain technology or products to any third party and may be required to comply with Israeli, U.S. and other foreign export regulations, as may be applicable.

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

Research and development expenses for the years ended December 31, 2020, 2019 and 2018 were \$78.3 million, \$75.6 million and \$73.1 million, respectively, net of government participation of \$0.9 million, \$0.7 million and \$1.4 million, respectively. As of December 31, 2020, we employed 421 professionals in our research and development departments, 46 of whom have PhDs. In addition to our research and development departments located at our facilities in Migdal Haemek, Israel, Newport Beach, California, San Antonio, Texas and Hokuriku Japan, we maintain a design center in Netanya, Israel.

## **PROPRIETARY RIGHTS**

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

As of December 31, 2020, we held 244 patents in force. We have entered into various patent and other technology license agreements with technology companies, including Synopsys, ARM, Cadence, Mentor Graphics and others, under which we have obtained rights to additional technologies and intellectual property.

We constantly seek to strengthen our technological expertise through relationships with technology companies. We seek to expand our core strengths in CMOS image sensors, non-imaging sensors, embedded flash, power management, AI, RF, SiGe, MEMS, mixed-signal and silicon photonics technologies by continuous development in these areas. A main component of our process development strategy is to acquire licenses for standard CMOS technologies, cell libraries and specialized IPs (e.g., NVM) from leading providers, such as ARM and Synopsys, and further develop specialized processes through our internal design teams. The licensing of these technologies has significantly reduced our internal development costs.

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

## **DESIGN SERVICES**

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

We interact closely with customers throughout the design development and prototyping process to assist them in the development of high performance and low power consumption semiconductor designs and to lower their final die, or individual semiconductor, costs through die size reductions and integration. We provide engineering support and services as well as manufacturing support in an effort to accelerate our customers' design and qualification process so that our customers can achieve faster time to market. We have entered into alliances with Cadence Design Systems, Inc., Synopsys, Inc., Mentor Graphics Corp., and other suppliers of electronic design automation tools, and also licensed standard cells, I/O and memory technologies from ARM, Synopsys, Inc., and other leading providers of physical intellectual property components for the design and manufacture of ICs. Through these relationships, we provide our customers with the ability to simulate the behavior of their design in our processes using standard electronic design automation, or EDA tools.

The applications for which our specialty process technologies are targeted present challenges that require an in-depth set of simulation models. We provide these models as an integral part of our design support. At the initial design stage, our customers' internal design teams use the proprietary design kits that we have developed to design semiconductors that can be successfully and cost-effectively manufactured using our specialty process technologies. These design kits, which collectively comprise our design library and design platform, allow our customers to quickly simulate the performance of a semiconductor design with our processes, enabling them to refine their product design to ensure alignment to our manufacturing process before actually manufacturing the semiconductor. Our engineers, who have significant experience with analog and mixed-signal semiconductor design and production, work closely with our customers' design teams to provide design advice and help them optimize their designs for our processes and their performance requirements. After the initial design phase, we provide our customers with a multi-project wafer service to facilitate the early and rapid use of our specialty process technologies, which allows them to gain early access to actual samples of their designs. Under this multi-project wafer service, we schedule a periodic multi-project wafer run in which we manufacture several customers' designs in a single mask set, providing our customers with an opportunity to reduce the cost and time required to test their designs. Our design center helps customers accelerate the design-to-silicon process and enhances first-time silicon success by providing them with the required design resources and capabilities namely, accurate device models, rich PDKs, silicon proven ESD (Electro Static Discharge) protection structures for different voltages ranging from 2KV to 15KV and I/Os, special design rules per application and technical support. Our design support can assist in all or part of the design flow. Our in-depth knowledge of the fab and processes provide a substantive and competitive advantage for our customers, for example when time to market is critical (our design support reduces the number of required runs) or when implementing designs that reach the boundaries of technology. In addition, our IP and design services can assist to relieve some of our customers' issues, providing the specific skills and expertise critical for quick and successful implementation of our customers' design on our manufacturing process.

We believe that our circuit design expertise and our ability to accelerate our customers' design cycle while reducing their design costs represent one of our more notable competitive strengths.

## **JAZZ SEMICONDUCTOR TRUSTED FOUNDRY**

For purposes of our U.S. aerospace and defense business, Tower and Tower NPB have worked with the Defense Security Service of the United States Department of Defense ("DSS") to mitigate concern of foreign ownership, control or influence over the operations in Fab 3, specifically relating to protection of classified information and prevention of potential unauthorized access by creating Jazz Semiconductor Trusted Foundry ("JSTF") as a subsidiary of Newport Fab LLC, which is directly held by NPB Co., and limiting possession of all classified information solely to JSTF. JSTF maintains facility security clearance and trusted foundry status.

### **C. ORGANIZATIONAL STRUCTURE**

The legal name of our company is Tower Semiconductor Ltd. Tower was incorporated under the laws of the State of Israel in 1993.

Tower directly operates our Fab 1 and Fab 2 facilities in Israel.

Tower's wholly-owned subsidiary, Tower US Holdings Inc., owns all of the shares of Tower Semiconductor NPB Holdings, Inc., which owns all of the shares of Tower Semiconductor Newport Beach, Inc. (all three companies are incorporated under the laws of the State of Delaware), which operates our Fab 3 facility.

Tower holds a 51% equity stake in TPSCo (and NTCJ holds the remaining equity of TPSCo). TPSCo is incorporated under the laws of Japan and operates three fabs Arai E, Uozo E and Tonami CD located in Japan.

Tower Semiconductor San Antonio, Inc., which is wholly-owned by Tower US Holdings, operates our Fab 9 facility in San Antonio, Texas, USA.

### **D. PROPERTY, PLANTS AND EQUIPMENT**

#### **Manufacturing Facilities**

We manufacture semiconductor wafers at seven manufacturing facilities: Fab 1 and Fab 2 facilities in Israel, Fab 3 in Newport Beach, California in the U.S., TPSCo's three fabs (Arai E, Uozo E and Tonami CD) in Japan, and Fab 9 in San Antonio, Texas, U.S. The capacity in each of our facilities at any particular time varies and depends on the combination of the processes being used and the product mix being manufactured at such time. Hence, it may be significantly lower at certain times as a result of certain combinations that may require more processing steps than others. We have the ability to rapidly change the mix of production processes in use in order to respond to changing customer needs and to maximize utilization of the fab. In general, our ability to increase our manufacturing capacity has been achieved through the addition of equipment, improvement in equipment utilization, and the reconfiguration and expansion of existing clean room areas.

Capital expenditures in 2020 and 2019 were approximately \$257 million and \$172 million, respectively, net of proceeds from sale of equipment and fixed assets of approximately \$57 million and \$19 million, respectively.

#### *Fab 1*

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

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

Since we commenced manufacturing at Fab 1, we increased its manufacturing capacity and expanded the technologies qualified in the fab, including specialized processes. Fab 1 supports geometries ranging from 1.0 micron to 0.35-micron.

#### *Fab 2*

In 2003, we commenced production in our Fab 2, also located in Migdal Haemek, Israel. Fab 2 supports geometries ranging from 0.35 to 0.11-micron, using advanced CMOS technology, including CMOS image sensors, embedded flash, advanced analog, RF SOI, power platforms and mixed-signal technologies. We have invested significantly in the purchase of fixed assets, primarily in connection with the construction of Fab 2, technology advancement and capacity expansion.

The land on which Fab 2 is located is subject to a long-term lease from the Israel Lands Authority that expires in 2049. The overall clean room area in Fab 2 is approximately 100,000 square feet.

#### *Fab 3*

NPB Co.’s manufacturing facility, Fab 3, and offices, which we acquired in 2008, are located in Newport Beach, California. Fab 3 supports geometries ranging from 0.80 to 0.13-micron. The manufacturing facility comprises 320,000 square feet, including 120,000 square feet of overall clean room area.

NPB Co. leases its fabrication facility and offices under a lease agreement that was initially in effect until March 2022, and provided NPB Co. an option, at its sole discretion, to extend the lease for an additional five year period, which NPB Co. elected to exercise for the lease to continue through March 2027. Under the lease agreement as currently in effect, (i) NPB Co.’s rental payments consist of fixed base rent and fixed management fees and NPB Co.’s pro rata share of certain expenses incurred by the landlord in the ownership of these buildings, including property taxes, building insurance and common area maintenance; and (ii) the lease agreement includes certain obligations of the parties, including certain noise abatement actions in relation to the fabrication facility. The landlord is claiming that noise abatement actions that have been implemented according to the obligations under the agreement are not adequate under the terms of the lease agreement, which he claims gives him the right to terminate the lease and/or NPC Co.’s option to extend the lease. We do not agree with, and are disputing, these claims. See “Item 3. Key Information—D. Risk Factors—Risks Affecting Our Business— *Risks relating to construction activities adjacent to Fab 3 and our Fab 3 lease could harm our operations and financial results.*”

#### *Uozu E, Tonami CD and Arai E fabs*

In 2014, we acquired a 51% equity stake in TPSCo, a company initially formed by Panasonic Corporation to manufacture products for Panasonic and other third-party customers, using three semiconductor factories located in Hokuriku, Japan, which factories were established by Panasonic. Pursuant to the transaction, Panasonic transferred its semiconductor wafer manufacturing process and capacity tools (8 inch and 12 inch) at its three fabs located in Hokuriku (Uozu E, Tonami CD and Arai E) to TPSCo. The fabs support geometrics ranging down to 45 nanometer. The fabs’ land and buildings are leased by PSCS to TPSCo.

During 2016, we acquired Fab 9 in San Antonio Texas, USA from Maxim. The assets and related business that we acquired from Maxim are held and conducted through a wholly-owned US subsidiary, Tower SA. Fab 9 supports process geometries ranging from 0.18 to 0.8 micron for the manufacture of products using CMOS and analog based technologies. Under the terms of the acquisition agreement, until the termination or expiration of the supply agreement entered into between Maxim and Tower SA, Maxim has a right of first offer to re-purchase Fab 9 in the event Tower or any of its subsidiaries sell, transfer, dispose of, cease the operations of, close, transfer or relocate Fab 9, or if Tower or its operations at Fab 9 become subject to a petition of bankruptcy or liquidation.

#### **Environmental, Safety and Quality Matters and Certifications**

We have placed significant emphasis on achieving and maintaining a high standard of manufacturing quality. All our facilities are ISO 9001 certified, an international quality standard that provides guidance to achieve an effective quality management system. In addition, all our facilities are IATF16949 certified, a stringent automotive quality standard.

Our operations are subject to a variety of laws and governmental regulations relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in our production processes. Failure to comply with these laws and regulations could subject us to material costs and liabilities, including costs to clean up contamination caused by our operations. All of our facilities are ISO 14001 certified, an international standard that provides management guidance on how to achieve an effective environmental management system. Risks have been evaluated and mitigation plans are in place to prevent and control accidental spills and discharges. Procedures have also been established at all our locations to ensure that any such potential situations are properly addressed. The environmental management system assists in evaluating compliance status with all applicable environmental laws and regulations as well as establishing loss prevention and control measures. In addition, our facilities are subject to strict regulations and periodic monitoring by governmental agencies.

For safety, all of our facilities are OHSAS 45001 certified, an international occupational health and safety standard that provides guidance on how to achieve an effective health and safety management system. The health and safety standard management system assists in evaluating compliance status with all applicable health and safety laws and regulations as well as establishing preventative and control measures.

Our goal in implementing OHSAS 45001, ISO 14001, ISO 9001 and IATF16949 systems is to continually improve our environmental, health, safety and quality management systems.

In addition, we are committed to environment, social and governance (“ESG”) criteria with a corporate focus on social contribution and sustainability through diverse initiatives and activities. We are currently preparing a dedicated report on our ESG policies, including our strategy and long-term plan.

#### **ITEM 4A. UNRESOLVED STAFF COMMENTS**

Not Applicable.

**A. OPERATING RESULTS**

*The information contained in this section should be read in conjunction with our audited consolidated financial statements for the years ended December 31, 2020 and 2019 and related notes and the information contained elsewhere in this annual report. Our financial statements have been prepared in accordance with US GAAP. The following discussion and analysis may contain forward-looking statements that involve risks and uncertainties. Our actual results and the timing of selected events could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under “Item 3. Key Information—D. Risk Factors” and elsewhere in this annual report.*

**Overview**

We are a pure-play independent specialty foundry dedicated to the manufacturing of semiconductors. As a pure-play foundry, we do not offer products of our own, but focus on producing ICs, based on the design specifications of our customers. We manufacture semiconductors for our customers primarily based on their designs or their end customers’ designs or other third-party designs. We currently offer the process manufacture geometries of 0.35, 0.50, 0.55, 0.60, 0.80-micron and above on 150-mm wafers and 0.35, 0.18, 0.16, 0.13 and 0.11-micron on 200-mm wafers and 90 nanometer, 65 nanometer and 45 nanometer on 300-mm wafers. We also provide design support and complementary technical services. ICs manufactured by us are incorporated into a wide range of products in diverse markets, including consumer electronics, personal computers, communications, automotive, industrial, aerospace and medical device products. The technology platforms that we offer are focused on the mega trends of seamless connectivity, green everything and interactive smart systems.

For the year ended December 31, 2020, our revenues were derived from customers located around the globe, of which 44% were located in the United States, 28% in Japan, 22% in Asia (excluding Japan) and 6% in Europe, as compared to 52%, 29%, 15% and 4%, respectively, for the year ended December 31, 2019.

For the year ended December 31, 2020, 25% of our revenues were derived from NTCJ (formerly known as PSCS until September 2020), 33% of our revenues were derived from five different customers each comprising 4% to 11% of our revenues, and the remaining 42% of our revenues were derived from many other smaller customers, as compared to 27%, 32% and 41%, respectively, for the year ended December 31, 2019.

The primary changes in financial and business conditions that could have impacted our business and financial results in 2020 were as follows:

*COVID-19.* The COVID-19 outbreak, which was declared a global pandemic by the World Health Organization during March 2020, did not adversely affect our revenue, business and financial results for the year ended December 31, 2020. While we faced some specific supply chain and shortage of supply issues due to local restrictions, lockdowns and isolation periods imposed by the governments of vendors, or due to no or limited international courier delivery services, and while attendance of employees and service providers at our facilities and offices was reduced due to local restrictions and isolation periods imposed by the local government, customer orders and pricing did not materially decrease due to the COVID-19 pandemic or any related or resulting global economic downturn.

While at the beginning of the COVID-19 outbreak, customer orders did not increase to the higher levels we had initially planned for, we did not face any material reductions or cancellations of orders and did not face any halt or stoppages of any of our seven manufacturing lines.

As a result, our 2020 quarterly revenues did not fluctuate and remained stable through the year, with a significant increase of revenues commencing in the second half of 2020 and into the first quarter of 2021. This significant increase in revenues is mainly attributed to our radio frequency (RF) business unit product sales for the infrastructure market for data centers and cloud computing, which were driven by the work-from-home trend and huge needs for ICs we manufacture for data storage and other markets.

As another result of the foregoing spike in customer demand, the utilization measured at most of our manufacturing facilities increased during the second half of 2020 and the beginning of 2021, as compared to the year ended December 31, 2019 and the first half of 2020.

In order to address the growing demand for our products and to attract and retain our customers, in 2020, we increased by almost 50% our investments in capital expenditure, net from \$172.2 million during 2019 to \$256.5 million in 2020, directed to all our fabs in Israel, the United States and Japan, including to our most advanced 12 inch fab located in Japan. The expansion of our capacity by capital expenditure is expected to remain high in 2021 as customer orders currently exceed our capacity at most of our 7 fabs.

*Cyber event.* In September 2020, we experienced a cyber event during which our information technology (IT) security systems identified a security incident on some of our computerized systems. As a preventive measure, in order to avoid significant potential disruption and loss that may be caused by such events, especially due to the possible substantial damage if operations would not be quickly restored, we proactively halted our servers and proactively halted operations in some of our manufacturing facilities for a few days. We then gradually resumed operations and returned to full capability in all facilities. Due to the immediate procedures that we implemented, the functionality and quality of the work in progress, as well as customer and employee data, remained protected. Since we executed these preventive measures and returned to production relatively quickly, and as we maintain a cyber insurance policy, the event had no material impact on our business, operations or financial position.

### **Key Factors Affecting Our Results**

The following are key factors that impact our results of operations:

#### ***Ability to attract and retain customers.***

We are a trusted, customer-oriented service provider that has built a solid reputation in the foundry industry over more than twenty-five years. We have built strong relationships with customers. Our consistent focus on providing high-quality, value-add services, including engineering and design support, has allowed us to attract customers that seek to work with a proven provider of foundry solutions. Our emphasis on working closely with customers and accelerating the time-to-market and performance of their next-generation products has enabled us to maintain a high customer retention rate, while increasing the number of new customers and new products for production.

We continuously target to expand our manufacturing footprint and business by attracting new customers that will utilize our existing manufacturing facilities, some of which have recently implemented further capacity expansion projects, as well as by acquiring external capacity through, acquisitions of existing or newly established fabs, as we have done in the past, with or without third-party collaboration and/or funding (including cash, equity or in-kind investment). We also offer from time to time a wide range of support services for the establishment of new semiconductor fabrication facilities or the ramp-up of existing facilities owned by third parties, using our technological, operational and integration expertise, for which we receive payments based on the achievement of pre-defined milestones and may also be entitled to certain capacity allocation and other rights.

#### ***Design wins with new and existing customers.***

We work with our customers and potential customers to understand their product roadmaps and strategies. We consider design wins to be critical to our future success. We define a design win as the successful completion of the evaluation stage, where a customer has verified that our platform process meets its requirements and qualified our libraries and IPs for their products. The revenue that we generate, if any, from each design win can vary significantly. Our long-term sales expectations are based on forecasts from customers, internal estimates of customer demand factoring in expected time to market for end-customer products incorporating our products and associated revenue potential and internal estimates of overall demand based on historical trends.



***Selling prices and manufacturing costs.***

Our gross margin has been and will continue to be affected by a variety of factors, including the timing of changes in pricing, shipment volumes, new product introductions, changes in product mixes, changes in our purchase price of raw materials, including silicon starting material wafers, and manufacturing yields. In general, newly introduced products and products with higher performance and more features tend to be priced higher than older, more mature products. Average selling prices in the semiconductor industry typically decline as products mature. Consistent with this historical trend, we expect that the average selling prices of our products will decline as they mature. In the normal course of business, we will seek to offset the effect of declining average selling prices on existing products by reducing manufacturing costs and introducing new and higher value-add products. If we are unable to maintain overall average selling prices or offset any declines in average selling prices with realized savings on product costs, our gross margin will decline.

***Investment in growth.***

We have invested, and intend to continue to invest, in expanding our operations, increasing our headcount, developing our products to support our growth and expanding our infrastructure and specifically, we intend to acquire additional 300mm manufacturing capacity, including by establishing in-organic capacity outside of our existing 300mm fab, which may be a costly project that will require us to use a significant portion of our cash and we may need to raise additional funds by way of debt and/or equity offerings, which funds may not be available at reasonable terms, if at all. We plan to continue to invest in our operational capabilities throughout the world through significant capital expenditure, and the return on these investments may be lower than we expect and these investments may significantly reduce our net profit and cash balance, and require us to raise additional funds by way of debt or equity offerings. In addition, as we invest in expanding our operations into new areas internationally, our business and results will become further subject to the risks and challenges of operations in those locations, including potentially higher fixed costs and operating expenses, potential impact of legal and regulatory developments, as well as high depreciation on fixed assets that will reduce our profitability.

**Critical Accounting Policies**

Our financial statements are prepared in accordance with US GAAP. The preparation of these financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, as well as related disclosures. We evaluate our estimates, assumptions and judgments on an ongoing basis. Our estimates, assumptions and judgments are based on historical experience and various other factors that we believe to be reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our financial statements, which, in turn, could change the results from those reported.

The critical accounting policies used in the preparation of our consolidated financial statements that we believe were most affected by significant management estimates and judgments are discussed below. See Note 2 to the consolidated financial statements included elsewhere in this annual report for further information on all significant accounting policies that we used to prepare our consolidated financial statements.

## Income Taxes

Our provision for income taxes is affected by income taxes in a multinational tax environment. The income tax provision is an estimate determined based on current enacted tax laws and tax rates at each of our geographic locations with the use of acceptable allocation methodologies based upon our organizational structure, our operations and business mode of work, and result in applicable local taxable income attributable to those locations.

For the year ended December 31, 2020, the consolidated provision for income taxes was \$5.4 million comprised of amounts related to Israel, Japan and U.S. operations, as detailed in Note 19 to our financial statements.

## New Accounting Pronouncements

For recently issued accounting pronouncements see Note 2X and Note 2Y to our annual financial statements included herein.

## Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the financial statements and the related notes thereto included in this annual report. The following table sets forth certain statement of operations data as a percentage of total revenues for the years indicated.

	Year ended December 31,		
	2020	2019	2018
<b>Statement of Operations Data:</b>			
Revenues	100%	100%	100%
Cost of revenues	81.6	81.4	77.5
Gross Profit	18.4	18.6	22.5
Research and development expense	6.1	6.2	5.6
Marketing, general and administrative expense	5.1	5.4	5.0
Operating profit	7.2	7.0	11.9
Financing income (expense), net	0.2	0.0	(1.0)
Other income (expense), net	(0.4)	0.3	(0.2)
Profit before tax	7.0	7.3	10.7
Income tax expense, net	(0.4)	(0.2)	(0.5)
Net profit	6.6	7.1	10.2
Net loss (income) attributable to non-controlling interest	(0.1)	0.2	0.2
Net profit attributable to the Company	6.5%	7.3%	10.4%

## Year ended December 31, 2020 compared to year ended December 31, 2019

*Revenues.* Revenues for the year ended December 31, 2020 were \$1,265.7 million, as compared to \$1,234.0 million for the year ended December 31, 2019. The \$31.7 million revenue increase is attributed mainly to an increased quantity of products (CMOS silicon wafers) manufactured and shipped to our foundry customers from our factories, especially from our Uozu E 300mm factory in Japan (Fab 7), while our average selling price per product remained stable.

*Cost of Revenues.* Cost of revenues for the year ended December 31, 2020 amounted to \$1,032.4 million as compared to \$1,004.3 million for the year ended December 31, 2019. The \$28.1 million increase in cost of revenues is mainly due to higher variable cost directly associated with the increased volume of wafers we manufactured and shipped as described above, as well as depreciation expense increase associated with the property and equipment we acquired and installed in 2020, as compared to 2019.

*Gross Profit.* Gross profit for the year ended December 31, 2020 amounted to \$233.3 million as compared to \$229.7 million for the year ended December 31, 2019. The \$3.6 million increase in gross profit resulted mainly from the \$31.7 million revenue increase, net of the \$28.1 million increased cost of revenues, as described above.

*Research and Development.* Research and development expense for the year ended December 31, 2020, amounted to \$78.3 million as compared to \$75.6 million for the year ended December 31, 2019, both reflecting approximately 6% of our revenues. The \$2.7 million increase in research and development expense reflects our continuous focus on enhancing our mid-term and long-term products' development funnel, technology capabilities and future design wins.

*Marketing, General and Administrative.* Marketing, general and administrative expense for the year ended December 31, 2020 amounted to \$64.0 million, a decrease of \$3.4 million as compared to \$67.4 million for the year ended December 31, 2019, mainly due to cost reduction activities we executed following the outbreak of the COVID-19 pandemic.

*Operating Profit.* Operating profit for the year ended December 31, 2020 amounted to \$91.0 million as compared to \$86.7 million for the year ended December 31, 2019. The \$4.3 million increase in operating profit resulted mainly from the \$3.6 million increase in gross profit described above and the \$3.4 million savings in marketing, general and administrative expense described above, offset by the \$2.7 million increase in research and development expense described above.

*Financing Income, Net.* Financing income, net for the year ended December 31, 2020 amounted to \$2.9 million as compared to \$0.01 million for the year ended December 31, 2019. The \$6.2 million increase in finance income, net was mainly due to NIS-to-USD exchange rate changes during 2020 as compared to 2019 and its impact on the USD value of NIS-denominated assets and liabilities, which was partially offset by \$4.5 million lower interest income due to lower interest rates and other returns received on our deposits and other investments associated with the worldwide reduction in such rates during 2020 as compared to 2019.

*Other Income (Expense), Net.* Other expense, net for the year ended December 31, 2020 amounted to \$5.2 million as compared to other income, net of \$4.3 million for the year ended December 31, 2019. Other income (expense), net include mainly non-recurring items such as gains and losses from the sale and disposal of property and equipment, as well as evaluation or devaluation of the value of investments in companies in accordance with ASC 321, as detailed in Notes 2J and 12E to the consolidated financial statements as of December 31, 2020.

*Income Tax Expense, Net.* Income tax expense, net for the year ended December 31, 2020 amounted to \$5.4 million as compared to \$2.9 million for the year ended December 31, 2019, reflecting mainly an increase in profitability of TPSCo, which is located in a higher-tax region as compared to our other subsidiaries.

*Net profit.* Net profit for the year ended December 31, 2020 amounted to \$83.3 million as compared to \$88.1 million for the year ended December 31, 2019. The \$4.8 million decrease in net profit was mainly due to the increases in other expense, net and in income tax expense, net, offset in part by the increase in operating profit and financing income, net, as described above.

*Net loss (income) attributable to the non-controlling interest.* Net loss (income) attributable to the non-controlling interest for the year ended December 31, 2020 amounted to \$1.0 million income as compared to a \$2.0 million loss in the year ended December 31, 2019, reflecting the increase in the profitability of TPSCo, of which we hold 51%.

*Net Profit attributable to the company.* Net profit attributable to the company for the year ended December 31, 2020 amounted to \$82.3 million as compared to \$90.0 million for the year ended December 31, 2019. The \$7.7 million decrease in net profit attributable to the company was mainly due to the decrease in net profit, as described above.

For details with regards to risks associated with the COVID-19 pandemic and/or risks that may result from the pandemic, see our disclosure under Note 1 to our consolidated financial statements as of December 31, 2020 and “Item 3. Key Information—D. Risk Factors—Risks Affecting Our Business—*Certain effects of the COVID-19 pandemic may hurt our business*”.

### **Impact of Currency Fluctuations**

We currently operate in three different regions: Japan, the United States and Israel. The functional currency of our entities in the United States and Israel is the USD. The functional currency of our subsidiary in Japan is the JPY. Our expenses and costs are denominated mainly in USD, JPY and NIS, revenues are denominated mainly in USD and JPY and our cash from operations, investing and financing activities are denominated mainly in USD, JPY and NIS. Therefore, we are exposed to the risk of currency exchange rate fluctuations in Israel and Japan.

The USD cost of our operations in Israel is influenced by changes in the USD-to-NIS exchange rate, with respect to costs that are denominated in NIS. During the year ended December 31, 2020, the USD depreciated against the NIS by 7.0%, as compared to 7.8% depreciation during the year ended December 31, 2019. The fluctuation of the USD against the NIS can affect our results of operations as it relates to the entity in Israel. Appreciation of the NIS has the effect of increasing the cost, in USD terms, of some of the purchases and labor costs that are denominated in NIS, which may lead to erosion of the profit margins. We use foreign currency cylinder transactions to hedge a portion of this currency exposure to be contained within a pre-defined, fixed range. In addition, we execute swap-hedging transactions to hedge the exposure to the fluctuation of the USD against the NIS to the extent it relates to our non-convertible Series G Debentures, which are denominated in NIS.

The majority of TPSCo revenues are denominated in JPY and the majority of TPSCo expenses are denominated in JPY, which limits the exposure to fluctuations of the USD / JPY exchange rate on TPSCo’s results of operations. In order to mitigate a portion of the net exposure to the USD / JPY exchange rate, we engage in cylinder hedging transactions to contain the currency’s fluctuation within a pre-defined, fixed range.

During the year ended December 31, 2020, the USD depreciated against the JPY by 5.0%, as compared to 1.2% depreciation during the year ended December 31, 2019. The net effect of the USD depreciation against the JPY on TPSCo’s assets and liabilities denominated in JPY is presented in the Cumulative Translation Adjustment (“CTA”) as part of Other Comprehensive Income (“OCI”) in the balance sheet.

### **B. LIQUIDITY AND CAPITAL RESOURCES**

As of December 31, 2020, we had an aggregate amount of \$211.7 million in cash and cash equivalents, as compared to \$355.6 million as of December 31, 2019. The main cash activities during the year ended December 31, 2020 were: \$276.6 million net cash provided by operating activities; \$313.7 million invested in property and equipment, net of proceeds received from sales of equipment of \$57.1 million; \$107.1 million invested in short-term deposits, marketable securities and other assets, net; and \$63.7 million debt repaid. Short-term and long-term debt presented on the balance sheet as of December 31, 2020 amounted to \$106.5 million and \$283.8 million, respectively, and included mainly bank loans, debentures and leases. As of December 31, 2020, the aggregate principal amount of debentures was \$104.0 million and its carrying amount in the balance sheet was \$102.4 million, of which \$40.9 million was presented as a short-term liability.

Based on our current operations and expected short term growth, our cash generated from operations and existing balance of cash, deposits and marketable securities, we have sufficient resources to meet our cash needs for operating activities, capital expenditures and debt repayments in the short term and long term.

If we execute a merger or acquisition transaction(s) per our company strategy, or a joint partnership or another large transaction to expand our capacity, we may utilize our current cash balance, deposits and/or investments in marketable securities and/or we may be required to secure additional financing by way of public or private offerings of equity and/or debt and/or re-financing or other financing alternatives. In May 2020, we filed a shelf registration statement with the Israel Securities Authority, following the expiration of our previously filed 2016 shelf, which provides us with a platform for future public fundraisings in Israel, in which case we would publish a supplemental shelf takedown report containing specific information about the terms of any such transaction. The timing, terms, size and pricing of any future fundraising, if any, would be subject to the then-prevailing capital market conditions and our business and financial situation. There is no assurance that we would be able to obtain the necessary funding in a timely manner, in sufficient amount or on favorable terms. See “Item 3. Key Information—D. Risk Factors—Risks Affecting Our Business—*We may be required to obtain financing for strategic opportunities, which may dilute the holdings of our shareholders and/or require us to incur additional debt.*”

### **Recent Financing Transactions**

#### *Capital Leases*

Certain of our subsidiaries enter into, from time to time, capital lease agreements for certain machinery and equipment operated in some of our fabrication facilities, usually for a period of four years, with an option to buy the machinery and equipment after a period of between three to four years from the start of the lease period. The lease agreements contain annual interest rates of up to 1.95% and the assets under the lease agreements are pledged to the lender until the time at which the respective subsidiary buys the assets. The obligations under the capital lease agreements are guaranteed by Tower, except for TPSCo’s obligations under its capital lease agreements.

As of December 31, 2020 and 2019, the outstanding capital lease liabilities for fixed assets were \$159.7 million and \$60.2 million, respectively, of which \$34.9 million and \$21.1 million, respectively, were included under current maturities of long-term debt.

#### *Tower Series G Debentures*

In June 2016, Tower raised approximately \$115 million through the issuance of long-term unsecured non-convertible debentures (“Series G Debentures”) payable in seven semi-annual consecutive equal installments from March 2020 to March 2023, and carrying an annual fixed interest rate of 2.79% payable in thirteen semi-annual consecutive equal installments from March 2017 to March 2023. The Series G Debentures’ aggregate principal amount is NIS 334 million as of December 31, 2020. The principal and interest amounts are denominated in NIS and are not linked to any index or to any other currency. We entered into hedging transactions to mitigate the foreign exchange rate differences on the principal and interest using a cross currency swap (see Note 10 to our consolidated financial statements for the year ended December 31, 2020). The Series G Debentures include customary financial and other terms and conditions, including a negative pledge and financial covenants. As of December 31, 2020, Tower was in compliance with the financial covenants under the Series G Debentures.

#### *Loan Agreement from Japanese Financial Institutions*

In June 2018, TPSCo refinanced its two then outstanding loans with 11 Billion JPY (approximately \$100 million) in new asset-based loan agreements with a consortia of financial institutions comprised of (i) JA Mitsui Leasing, Ltd., (ii) Sumitomo Mitsui Trust Bank, Limited (SMTB) replaced in 2020 by Sumitomo Mitsui Finance and Leasing Company, Limited (SMFL), (iii) Sumitomo Mitsui Banking Corporation (SMBC) and (iv) China trust Commercial Bank Corporation (CTBC), replaced in 2020 by Mitsubishi UFJ Lease & Finance Co. Ltd (MUL) (the “JP Loan”). The JP Loan carries a fixed interest rate of 1.95% per annum, with principal payable in nine semiannual payments from 2021 until 2025. The JP Loan is secured mainly by a lien over the machinery and equipment of TPSCo located in the Uozu and Tonami manufacturing facilities. The outstanding principal amount was approximately \$107 million as of December 31, 2020.

The JP Loan also contains certain financial ratios and covenants, as well as customary events of default and acceleration of the repayment schedule. TPSCo's obligations pursuant to the JP Loan are not guaranteed by Tower, NTCJ, or any of its affiliates.

As of December 31, 2020, TPSCo was in compliance with all of the financial ratios and covenants under the JP Loan.

### **C. RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES**

Our research and development activities are related primarily to our manufacturing process by way of improvements, upgrades and development for our use in the manufacturing of our customers' products, and have been sponsored and funded by us with some participation by the Israeli government. Our research and development expenses for the years ended December 31, 2020, 2019 and 2018 were \$78.3 million, \$75.6 million and \$73.1 million, respectively, net of government participation of \$0.8 million, \$0.4 million and \$1.4 million, respectively.

For a description of our research and development policies and our patents and licenses, see "Item 4. Information on the Company – B. Business Overview".

### **D. TREND INFORMATION**

We operate as a specialty foundry in the semiconductor industry. The semiconductor industry is historically characterized as highly cyclical, both seasonally and over the long term. Over time, the market fluctuates, cycling through periods of weak demand, production excess capacity, excess inventory and price pressure, and periods of strong demand, full capacity utilization, and product shortages, commanding higher selling prices.

There is a trend within the semiconductor industry toward ever-smaller features and ever-growing wafer sizes. State-of-the-art digital fabs are currently supporting process geometries of down to 5-10 nanometers with 300mm wafers. As demand for smaller geometries increases, there is downward pressure on the pricing of larger geometry products, and potential underutilization of fabs that are limited to manufacturing these larger geometry products, which may result in reduced profitability for the associated manufacturers. However, our strategy to focus on differentiated specialty analog technologies, along with our deep applications knowledge, design enablement tools and customer technical support, enable us to achieve higher product selling prices as compared to manufacturers of "commoditized" standard products. We currently offer process geometries of (i) 0.35, 0.50, 0.55, 0.60, 0.80-micron and above on 150-mm wafers; (ii) 0.35, 0.18, 0.16, 0.13 and 0.11-micron on 200-mm wafers; and (iii) 65 nanometer and 45 nanometer on 300-mm wafers. We continue to invest in our portfolio of specialty process technologies and intellectual property (IP) to address the key product and system requirements of our customers, enabling them to compete in their respective markets.

Another key element of our strategy is to target multiple large, growing and diversified end markets. We target end markets characterized by high growth and high performance, for which we believe our specialty process technologies and design services offer a strong, compelling value proposition to our customers. We focus on markets driven by three industry mega-trends: "Green Everything", "Wireless Everything", and "Smart Everything". Our target markets include the Internet of Things (IoT), machine-to-machine communication devices, ultra-low power mobile applications, wireless and high-speed wireline communications, consumer electronics, automotive, and industrial markets. For example, we believe that our specialty SOI, SiGe and phase change materials process technologies can provide performance and cost advantages over current GaAs solutions in the realization of switches and power amplifiers for wireless handsets. Our power management platforms enable the industry's analog IC suppliers to differentiate their product offerings in the markets we serve. Our specialized CMOS image sensor platforms allow customers to fabricate ultra high sensitivity/low noise CIS products for operation in visible, infra-red, ultra-violet and X-ray spectral ranges, develop both ultra small-size cameras and imagers occupying the whole surface of a 200mm wafer. We also target the rapidly growing non-visual sensor markets by developing specialized sensors some of them based on nanowire elements to be fabricated on silicon (SOI) and GaN technological platforms, in particular advanced integrated UV, gas and BioFET sensors. We are also engaged in development of IPs for enabling data processing using artificial intelligence based on our original device approaches by using our patented memristor solutions for emulating synapses in artificial neural networks. Our specialty products and target market strategy allow us to grow and diversify our business by attracting new customers, which expands our customer base, and broadening our business with existing customers.

During recent years, we have accelerated our plans to expand manufacturing capacity, including capacity in our 300mm fab. We are focused on successfully integrating all of our fabs globally and increasing the utilization of our fabs, by attracting new customers and opportunities.

We seek to maintain capital efficiency by leveraging our capacity and manufacturing model to ensure cost-effective manufacturing. With a global manufacturing footprint, including seven fabs in three continents, we are focused on sharing and applying best practices across the organization, to provide our customers with high quality solutions, along with the applications knowledge and technical support that allow them to benefit from a competitive edge in the market. Our geographical diversity allows us to perform an internal benchmark among our acquired facilities to gain knowledge on work processes and methodologies, thereby ensuring that we maintain a high level of operations across all facilities. Our global foothold also provides our customers with manufacturing flexibility and business continuity in terms of opportunity for capacity availability.

Over the last several years, we have been constantly looking to expand our presence in the global markets, penetrate new geographical areas, increase our served markets and expand our technology offering through business and development ventures. This may also be accomplished through the establishment of new facilities with third party, collaboration and/or funding, mergers and acquisitions with potential target fabrication facilities that may include a solid base of customer demand, for the increase of our manufacturing capacity and/or development of technologies that may expand our servable and/ or available market potential, and increase our revenue, customer base and margins. Such transactions, mergers and acquisitions are also beneficial as they provide our customers with manufacturing diversification and opportunity for additional growth through access to increased capacity. We continuously evaluate potential acquisition opportunities and seek to secure additional manufacturing capacity. Our current cash balance, deposits and/or investments in marketable securities may be used to enable us to realize and execute on such opportunities, and we may require additional financing through, among other things, debt (including convertible debt, bonds, notes or debentures) and/or equity issuances (including shares and warrants), in order to consummate such opportunities and/ or fund our other operational and capital expenditure cash needs, as well as our strategy to expand our global footprint, capacity and capabilities.

**E. N/A**

**ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES**

**A. DIRECTORS AND SENIOR MANAGEMENT**

Set forth below is information regarding our senior management and directors as of April 30, 2021:

<b>Officer</b>	<b>Senior Management Name</b>	<b>Age</b>	<b>Title(s)</b>
A	Russell C. Ellwanger	66	Chief Executive Officer and Director of Tower, and Chairman of the Board of Directors of its subsidiaries Tower Semiconductor USA, Inc., Tower US Holdings, Inc., Tower Semiconductor NPB Holdings, Inc., Tower Semiconductor Newport Beach, Inc., Tower Partners Semiconductor Co., Ltd. and Tower Semiconductor San Antonio, Inc.
B	Oren Shirazi	51	Chief Financial Officer, Senior Vice President of Finance
C	Rafi Mor	57	Chief Operating Officer
D	Dr. Marco Racanelli	54	Newport Beach Site Manager and Senior Vice President and General Manager of Analog Business Unit
E	Nati Somekh	46	Senior Vice President, Chief Legal Officer and Corporate Secretary
F	Yossi Netzer	57	Senior Vice President of Corporate Planning
G	Dalit Dahan	52	Senior Vice President of Human Resources and IT
H	Guy Eristoff	58	Chief Strategy Officer and Head of Pathfinder Activities
I	Dr. Avi Strum	59	Senior Vice President and General Manager of the Sensors and Displays Business Unit
J	Dani Ashkenazi	58	Senior Vice President Excellence and Quality
K	Noit Levy	37	Senior Vice President of Investor Relations and Corporate Communications

	<b>Directors Name(*)</b>	<b>Age</b>	<b>Title</b>
L	Amir Elstein	65	Chairman of the Board of Directors
M	Kalman Kaufman	75	Director
N	Dana Gross	53	Director
O	Ilan Flato	64	Director
P	Yoav Z. Chelouche	67	Director
Q	Iris Avner	56	Director
R	Michal Vakrat Wolkin	49	Director
S	Avi Hasson	50	Director

(\*) Russell Ellwanger also serves as a director; his information is included under Senior Management above.

**Russell C. Ellwanger** has served as our Chief Executive Officer since May 2005. Mr. Ellwanger has also served as a director since September 2016, and previously served as a director between May 2005 and April 2013. Mr. Ellwanger serves as Chairman of the Board of Directors of our subsidiaries, Tower Semiconductor USA, Inc., Tower US Holdings, Inc., Tower Semiconductor NPB Holdings, Inc., Tower Semiconductor Newport Beach, Inc., Tower Partners Semiconductor Co., Ltd. and Tower Semiconductor San Antonio, Inc. From 1998 to 2005, Mr. Ellwanger served in various executive positions for Applied Materials Corporation, including Group Vice President, General Manager of the Applied Global Services (AGS), from 2004 to 2005, Group Vice President, General Manager of the CMP and Electroplating Business Group, from 2002 to 2004. Mr. Ellwanger also served as Corporate Vice President, General Manager of the Metrology and Inspection Business Group, from 2000 to 2002, during which he was based in Israel. From 1998 to 2000, Mr. Ellwanger served as Vice President of Applied Materials' 300-mm Program Office, USA. Mr. Ellwanger served as General Manager of Applied Materials' Metal CVD Division from 1997 to 1998 and from 1996 to 1997, Mr. Ellwanger served as Managing Director of CVD Business Development, during which he was based in Singapore. In addition, Mr. Ellwanger held various managerial positions in Novellus System from 1992 to 1996 and in Philips Semiconductors from 1980 to 1992.



**Oren Shirazi** has served as our Chief Financial Officer and Senior VP Finance since November 2004. Mr. Shirazi serves as a board member of Tower Semiconductor Newport Beach, Inc. Mr. Shirazi joined us in October 1998, serving initially as vice controller and then as controller commencing in July 2000. Prior to joining us, Mr. Shirazi was employed as an audit manager in the accounting firm of Ratzkovski-Fried & Co., which merged into Ernst & Young (Israel). Mr. Shirazi is a Certified Public Accountant in Israel (CPA). Mr. Shirazi holds an MBA degree from the Graduate School of Business of Haifa University with honors and a B.A. degree in economics and accounting from the Haifa University.

**Rafi Mor** has served as Chief Operating Officer of Tower since August 2014. Mr. Mor serves as a board member of Tower Semiconductor Newport Beach, Inc., Tower Semiconductor NPB Holdings, Inc., Tower Partners Semiconductor Co., Ltd. and Tower Semiconductor San Antonio, Inc. Mr. Mor served as Chief Executive Officer of TowerJazz Japan from October 2011 until August 2014, after serving as Senior Vice President and General Manager of Tower Semiconductor Newport Beach, Inc. from September 2008. In October 2010, Mr. Mor was nominated to be the manager of our Newport Beach Fab, in addition to his General Manager role. Prior thereto, Mr. Mor served in Tower Semiconductor Ltd. as Vice President of Business Development from April 2007, after serving as Vice President and Fab 2 Manager from August 2005, and as Fab 1 Manager from March 2003. From November 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. Mr. Mor holds M.A. and B.A. degrees in chemical engineering from Ben Gurion University.

**Dr. Marco Racanelli** has served as Senior Vice President and General Manager of the Analog Business Unit since December 2018 and also serves as the Newport Beach Site Manager since April 2014. Previously, Dr. Racanelli served as Senior Vice President from June 2012 and General Manager, RF & High Performance Analog Business Group and Aerospace & Defense Group from September 2008. Prior to that, Dr. Racanelli served as Vice President of Technology & Engineering, and Aerospace & Defense General Manager for Jazz Semiconductor. Prior to that, Dr. Racanelli held several positions at Conexant Systems and Rockwell Semiconductor from 1996 in the area of technology development, where he helped establish industry leadership in SiGe and BiCMOS and MEMS technology and built a strong design support organization. Prior to Rockwell, Dr. Racanelli worked at Motorola, Inc., where he contributed to bipolar, SiGe and SOI development for its Semiconductor Products Sector. Dr. Racanelli holds a Ph.D. and a M.Sc. degree in Electrical and Computer Engineering from Carnegie Mellon University, and a B.Sc. degree in Electrical Engineering from Lehigh University. Dr. Racanelli holds over 35 U.S. patents.

**Nati Somekh** has served as Senior Vice President, Chief Legal Officer and Corporate Secretary since February 2010, after serving as Vice President, Chief Legal Officer and Corporate Secretary from September 2008, after serving as Corporate Secretary and General Counsel from March 2005, and as Associate General Counsel from May 2004. From 2001 to 2004, Ms. Somekh was employed by Goldsobel & Kirshen, Adv. Ms. Somekh holds an LL.M. and J.D. degrees from Boston University and a B.A. degree from Johns Hopkins University. Ms. Somekh is a member of the Israel Bar Association and is admitted as an attorney in the State of New York.

**Yossi Netzer** has served as Senior Vice President of Corporate Planning since July 2012, after serving as VP of Corporate Planning from November 2008, as General Manager of Mixed Signal, RF & Power Management Product Line from 2005 and as Director, FAB 2 Yield & Device Engineering Manager from 2000. From 1995 to 2000, Mr. Netzer served in various engineering management positions within the R&D division dealing with CMOS, Mixed Signal, RF, and NVM Technologies. Prior to joining Tower, Mr. Netzer was employed at National Semiconductor and the Technion – Israel Institute of Technology. Mr. Netzer holds a B.Sc. degree in electrical engineering from the Technion – Israel Institute of Technology.

**Dalit Dahan** has served as Senior Vice President of Human Resources and IT since 2008. Prior thereto, Ms. Dahan served as Vice President of Human Resources commencing in April 2004. Ms. Dahan joined us in November 1993 and served as Personnel Manager commencing in April 2000, after having served as Compensation & Benefits Manager and in various other positions in the Human Resources Department. Prior to joining us, Ms. Dahan served as Manager of the North Branch of O.R.S - Manpower Company for three years. Ms. Dahan holds a B.A. degree in social science from Haifa University and an MBA degree from the University of Derby.

**Guy Eristoff** has served as Chief Strategy Officer and Head of Pathfinder Activities since December 2019. Mr. Eristoff also serves as a member of the board of directors of TPSCo since April 2014. Previously, Mr. Eristoff served as TPSCo's Chief Executive Officer from its foundation in April 2014 until December 2019. Previously, Mr. Eristoff served as Vice President, Global Operational Excellence at Tower Semiconductor Ltd. Prior to that, Mr. Eristoff served in various positions in the semiconductor industry such as Director of 200mm Fabs Core Engineering at Global-Foundries (Technology Development, Marketing, Industrial Engineering & Central Engineering) for the 200mm Business Unit, General Manager, Singapore and Asia Region at Intevac, Thin Films Section Manager, Thin Films Module Manager and Process Integration Deputy Director at Chartered Semiconductor and Process/Hardware Engineer and Field Service Manager at Applied Materials. Mr. Eristoff holds a B.S. degree in Physics from Rensselaer Polytechnic Institute, (RPI) Troy New York.

**Dr. Avi Strum** has served as our Senior Vice President and General Manager of the Sensors and Displays Business Unit since 2018, and also serves as a member of the board of directors of TPSCo since 2019. Previously, Dr. Strum served as Vice President and General Manager of the Specialty Business Unit, Vice President of Europe Sales, Head of the Design Center in Netanya and Device and Integration Department Manager. Prior to joining Tower, Dr. Strum served as the President and COO of TransChip Inc. and from 1996 to 2001, he served in various positions with Intel Corp., both in Israel and the US. From 1990 to 1996, he was the R&D Manager of SCD and was in charge of all the Infrared Detectors development in SCD. Dr. Strum received his Ph.D. and B.Sc. degree in Electrical Engineering from the Technion - Israel Institute of Technology.

**Dani Ashkenazi** has served as Senior Vice President Excellence and Quality since July 2020. Previously, Mr. Ashkenazi served as Senior Vice President and General Manager of Transfer, Optimization and Development Process Services Business Unit (TOPS) and Europe Sales from June 2019, and as Vice President of Worldwide Customer Solutions from 2015. Mr. Ashkenazi served as Vice President of Sales for APAC & Israel from 2008, after serving as General Manager, CMOS Product Line from 2005 and as Director of Customer Support, and Director of Reliability from 2003. Prior to that, Mr. Ashkenazi served as Application Manager at Tower USA in Santa Clara and prior to that Mr. Ashkenazi held engineering management positions within the process, test and product engineering groups. Mr. Ashkenazi holds M.Sc. and B.Sc. degrees in Physics from the Hebrew University of Jerusalem.

**Noit Levy** has served as our Senior Vice President of Investor Relations and Corporate Communications and is heading our investor relations, public relations and marketing communications since 2008, having served as Director of Investor Relations and Public Relations since 2006. From 2001 to 2006 she has served in various other positions within the Company. Ms. Levy holds an MBA degree from Haifa University in Israel and a B.A. degree in Social Science and Management from the College of Management Academic Studies.

**Amir Elstein** has served as the Chairman of our Board since January 2009. Mr. Elstein serves as a Director of Teva Pharmaceutical Industries Ltd. and serves as Chairman of the Israel Democracy Institute. During 2010-2013, Mr. Elstein served as Chairman of the Board of Directors of Israel Corporation. . Mr. Elstein was a member of Teva Pharmaceutical Industries senior management team from 2005 to 2008, where he ultimately held the position of the Executive Vice President at the Office of the Chief Executive Officer, overseeing Global Pharmaceutical Resources. Prior thereto, Mr. Elstein was an executive at Intel Corporation, where he worked for 23 years, eventually serving as General Manager of Intel Electronics Ltd., an Israeli subsidiary of Intel Corporation. Mr. Elstein received a B.Sc. degree in physics and mathematics from the Hebrew University of Jerusalem and M.Sc. degree in the Solid State Physics Department of Applied Physics from the Hebrew University in 1982. In 1992, Mr. Elstein received his diploma of Senior Business Management from the Hebrew University of Jerusalem.

**Kalman Kaufman** has served as a director since 2005 and as chairman of the Corporate Governance and Nominating Committee since January 2018. Mr. Kaufman served as Corporate Vice President at Applied Materials from 1994 to 2005. Between 1985 and 1994, Mr. Kaufman served as President of KLA Instruments Israel, a company he founded, and General Manager of Kulicke and Soffa Israel. Mr. Kaufman is currently the Chairman of the board of directors of Medasense and Invisia, a director at Trellis Inc, Chair of the general assembly of the Kinneret Academic College and chairman of the Tzemach Kineret Development Corporation. Mr. Kaufman holds engineering degrees from the Technion - Israel Institute of Technology.

**Dana Gross** has served as a director since November 2008, as a member of the Corporate Governance and Nominating Committee since January 2018, as a member of the Compensation Committee since February 2013 and as chair of the Compensation Committee since November 2020. In addition, Mrs. Gross has served as a director on the board of Tower Semiconductor Newport Beach, Inc., our wholly owned subsidiary, since March 2009. Mrs. Gross is currently the COO of Prospera Technologies Ltd., an AgTech Data Company. Mrs. Gross was the CFO of eToro, a FinTech company that developed a Social Investment network from 2014 to 2016, and the CEO of Btendo, a start-up company that developed MEMS based PICO projection solutions, until it was acquired by ST Microelectronic in 2012. Mrs. Gross was a Venture Partner at Viola Ventures, a leading Israeli venture capital firm as a Venture Partner, from 2018 until 2010. From 2006 to 2008, Mrs. Gross was a Senior VP, Israel Country Manager at SanDisk Corporation. From 1992 to 2006, Mrs. Gross held various senior positions at M-Systems, including Chief Marketing Officer, VP World Wide Sales, President of M-Systems Inc. (US subsidiary) and CFO, VP Finance and Administration. In addition, Mrs. Gross served as a director of M-Systems Ltd., Audiocodes Ltd. and Power Dsine Ltd. Mrs. Gross holds a B.Sc. degree in industrial engineering from Tel-Aviv University and an M.A. degree in business administration from San Jose State University.

**Ilan Flato** has served as a director since February 2009 (until November 2016 as an external director, within the meaning of the Companies Law). Mr. Flato served as chairman of the Compensation Committee from February 2013 until October 2019 and since such time continues to serve as a member of the Compensation Committee. Mr. Flato has served as a member of the Audit Committee since April 2009. Mr. Flato is classified by the Board of Directors as an audit committee financial expert under applicable SEC rules. Mr. Flato has served as President of The Association of Publicly Traded Companies on the Tel-Aviv Stock Exchange since January 2012. Since 2011, Mr. Flato has been a member of the Israel Bar Association. From 2009 until 2018, Mr. Flato served as a director in two Provident Funds. From 2009 until April 2018, Mr. Flato served as Chairman of the Business Executive of Kibbutz Kfar Blum. From January 2018 until April 2020, Mr. Flato served as Chairman of the Business Executive Kibbutz "NAAN". Since 2004, Mr. Flato has functioned as an independent financial adviser. Until 2004, Mr. Flato served as the VP for planning, economics and online banking in United Mizrahi Bank and as the Chief Economist of the bank. From 1992 until 1996, Mr. Flato served as the Economic Advisor to the Prime Minister of Israel. Prior to that position, Mr. Flato served in the Treasury Office as the deputy director of the budget department. In addition, Mr. Flato served as a member of the board of directors of many government-owned companies. Mr. Flato holds a B.A. degree in economics from Tel-Aviv University, an LL.B. degree from Netanya College, an M.A. degree in law from Bar-Ilan University and an MSIT from Clark University.

**Yoav Z. Chelouche** has served as a director since April 2016, as a member of the Corporate Governance and Nominating Committee since January 2018, and as a chairman and member of our Audit Committee since May 2017. Mr. Chelouche is classified by the Board of Directors as an audit committee financial expert under applicable SEC rules. Mr. Chelouche serves as Managing Partner of Aviv Ventures since Aviv's inception in 2001. Between 1995 and 2001, Mr. Chelouche served as President & CEO of Scitex Corp. Until 2015, Mr. Chelouche was co-chairman of Israel Advanced Technology Industries. Mr. Chelouche currently serves on the Board of Directors of the following publicly listed companies: Checkpoint Software Technologies, the Tel-Aviv Stock Exchange, Shufersal and Malam-Team. Mr. Chelouche is also a board member in several private companies, including Aviv's portfolio companies: Vessl Therapeutics and ScaleMP. Mr. Chelouche also previously served as Chairman of several public companies. Mr. Chelouche holds a B.A. degree in economics and statistics from Tel-Aviv University and an MBA degree from INSEAD, Fontainebleau, France.

**Iris Avner** has served as a director since June 2016 (until November 2016 as an external director, within the meaning of the Israeli Companies Law), and has served as a member of the Audit Committee since June 2016. Ms. Avner served as a member of the Compensation Committee from June 2016 until October 2019. Ms. Avner is classified by the Board of Directors as an audit committee financial expert under applicable SEC rules. Ms. Avner serves as Chief Executive Officer of Nika Holdings, Ltd. From 2008 to 2015, Ms. Avner served as Managing Partner of Mustang Mezzanine Fund, L.P. and served on Mustang's board of directors from 2014 until 2015. From 1996 until 2008, Ms. Avner served as Chief Executive Officer of Mizrahi Tefahot Capital Markets Ltd. and from 1996 until 2005, served as Senior Credit Officer & Deputy CEO of Mizrahi Tefahot Bank. In addition, from 1997 until 2002, Ms. Avner served as Assistant Professor and external lecturer in the Executive MBA Program in Tel Aviv University. From 1988 until 1996, Ms. Avner held various positions at Israeli Discount Bank including Senior Credit Officer and Senior Economist. Ms. Avner has served as a member of the board of directors of Israel Discount Bank since March 2018 and Amir Marketing and Investments in Agriculture since May 2017. Ms. Avner has served as a member of the board of directors of Rotshtein Real Estate since August 2016. Ms. Avner previously served on several boards and board committees in Israel and abroad, both as director and chairperson. Ms. Avner holds a B.A. degree in accounting and economics from the Hebrew University of Jerusalem and an MBA degree from Tel Aviv University.

**Michal Vakrat Wolkin** has served as a director since September 2020, and as a member of the Corporate Governance and Nominating Committee since November 2020. Ms. Wolkin serves as a partner at GFT Ventures, a global venture capital firm since 2020 and on the Advisory Board of RACAH Nano Tech Fund of the Hebrew University of Jerusalem since 2019. Ms. Wolkin served as Managing Director of Lear Innovation Ventures from January 2017 until 2020. During 2014-2016, Ms. Wolkin served as Head of 3M R&D and from 2012 until 2014, she served as Technical Chair of the Night Rover Challenge of NASA/CleanTech Open. Ms. Wolkin served as Director of Energy Storage Technologies in Better Place from 2008 until 2012, and from 2004 until 2008, she served as Member of Research Staff II at the Hardware system lab at Xerox PARC. Ms. Wolkin received her B.Sc. degree in Chemical Engineering from the Technion - Israel Institute of Technology in Israel in 1996 and Ph.D. degree in Applied Physics and Materials Science from the University of Rochester, NY in 2000. In 2003 until 2004, Ms. Wolkin did her Post-doctorate at the Electronics Materials Lab at Xerox PARC.

**Avi Hasson** has served as a director since September 2020, and as a member of the Audit Committee and Compensation Committee since November 2020. Mr. Hasson is classified by the Board of Directors as an audit committee financial expert under applicable SEC rules. Mr. Hasson is a partner at Emerge, a leading early stage venture capital firm. Mr. Hasson serves in several non-profit organizations, including as a director on the board of Sheba Medical Center at Tel Hashomer, SpaceIL and Israel Tech Challenge. From January 2011 until July 2017, Mr. Hasson served as the Chief Scientist in the Ministry of Economy and Industry and as Chairman of the Israel Innovation Authority. During 2000 until 2010, Mr. Hasson served as General Partner at Gemini Israel Funds, a top tier venture capital fund in Israel. Prior thereto, Mr. Hasson held executive positions in product management, marketing and business development various telecommunication technology companies, including ECI Telecom, ECTel and Tadiran systems. Mr. Hasson received his B.A. degree in Economics and Middle East studies from Tel-Aviv University in 1997 and M.B.A. degree from Tel Aviv University in 2002.

We are not party to, and are not aware of, any arrangements or understandings with major shareholders, customers, suppliers or others, pursuant to which any director or executive officer was selected as a director or member of senior management, as the case may be.

## **B. COMPENSATION**

Under the Companies Law, a public company must have a compensation policy regarding the terms of engagement of office holders, as such term is defined in the Companies Law. The compensation policy must be approved at least once every three years, first, by our board of directors, upon recommendation of our compensation committee, and second, by the shareholders by the Special Majority (as defined in Item 6C under “— Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions—*Approval of Director and Officer Compensation—Executive Officers other than the Chief Executive Officer*”). Under special circumstances, the board of directors may approve the compensation policy despite the objection of the shareholders on the condition that the compensation committee and then the board of directors decide, on the basis of detailed grounds and after discussing again the compensation policy, that approval of the compensation policy, despite the objection of shareholders, is for the benefit of the company.

Our amended and restated compensation policy for executive officers and directors, which was approved by our shareholders on September 17, 2020, serves as the basis for decisions concerning the financial terms of employment or engagement of our office holders (within the meaning of the Companies Law), including compensation, equity-based awards, indemnification and insurance, severance and other benefits. Our compensation policy is performance based and is designed to align our officers’ and directors’ interests with those of our company and shareholders in order to enhance shareholder value. Our compensation policy allows us to provide incentives that reflect short-term, mid-term and long-term goals and performance, as well as motivate achievement of company targets, while providing compensation that is competitive in the global marketplace in which we recruit our senior management.

As an Israeli company with a significant global footprint, we aim to adopt compensation policies and procedures that match global companies of similar complexity, including semiconductor companies and other companies which compete with us for similar talent.

Under the Companies Law, a company's compensation policy must be determined and later reevaluated according to certain factors, including: the advancement of the company's objectives, business plan and long-term strategy; the creation of appropriate incentives for office holders, while considering, among other things, the company's risk management policy; the size and the nature of the company's operations; and with respect to variable compensation, the contribution of the office holder towards the achievement of the company's long-term goals and the maximization of its profits, all with a long-term objective and according to the position of the office holder. The compensation policy must furthermore consider the following additional factors:

- the education, skills, expertise and achievements of the relevant office holder;
- the role and responsibilities of the office holder, and prior compensation arrangements with the office holder;
- the ratio of the cost of the terms of employment of an office holder to the cost of compensation of the other employees of the company (including any employees employed through manpower companies), specifically to the cost of the average and median salaries of such employees and the impact of the disparities between them upon work relationships in the company;
- with respect to variable compensation, the possibility of reducing variable compensation at the discretion of the board of directors, and the possibility of setting a limit on the exercise value of non-cash variable equity-based compensation; and
- with respect to severance compensation, the period of employment or service of the office holder, the terms of his or her compensation during such period, the company's performance during such period, the person's contribution towards the company's achievement of its goals and the maximization of its profits, and the circumstances under which the person is leaving the company.

In addition, under the Companies Law, the compensation policy must also include the following features: (i) with respect to variable components of the compensation of the chief executive officer, determining the variable compensation components on long term performance and measurable metrics; however, an immaterial portion of the variable components of the compensation of the chief executive officer, in the amount of up to three monthly salaries per annum, can be discretion based awards (i.e., not based on measurable metrics), taking into account the contribution of the chief executive officer to the company. This requirement applies also to any other office holder (within the meaning of the Companies Law) who is not subordinate to the chief executive officer, if any; (ii) the ratio of variable components and fixed components and a cap on variable components at the time of their payment, except that the cap for equity-based compensation is determined at the time of grant; (iii) the conditions under which an office holder would be required to return compensation paid, in the event that it is later revealed that such amounts were paid on the basis of data that was inaccurate and was required to be restated in the company's financial statements; (iv) the minimum holding or vesting periods for equity-based variable components of compensation, while taking into consideration long term incentives; and (v) maximum limits on grants or benefits paid upon termination.

Compensation under our compensation policy may include: base salary; benefits and perquisites, performance-based cash bonuses and other bonuses (such as special bonuses for substantial achievements and sign-on bonuses); equity-based compensation; and retirement, termination and other arrangements. Our compensation policy aims to optimize the mix of fixed compensation and variable compensation in order to, among other things, appropriately incentivize office holders to meet our goals while considering our management of business risks, and sets maximum ratios between the two types of compensation elements.

All compensation arrangements of officers and directors are required to be approved in the manner prescribed by applicable law (see details in Exhibit 2.1 to this annual report).

For the year ended December 31, 2020, we paid to all our directors and senior management who served during the period, as a group, an aggregate of \$7.3 million in salaries, fees, payments upon termination and bonuses (excluding employer cost and equity-based compensation, which are detailed below). The total employer cost for personal vehicles, relocation related expenses, amounts set aside or accrued to provide for insurance, severance, retirement, vacation and similar benefits or expenses for such persons was approximately \$2.0 million for the year ended December 31, 2020.

The following is a summary of the compensation paid or granted to our five most highly compensated officers and/or directors for the year ended December 31, 2020 (collectively referred to herein as the “Covered Officers”). The Covered Officers consist of the individuals listed in A, D, B, C and H in the table set forth in Item 6A above. All amounts reported reflect the cost to the Company as recognized in our financial statements for the year ended December 31, 2020.

The base salary of our executive officers is individually determined according to past performance, educational background, country of residence, professional experience, qualifications, specializations, role, business responsibilities, achievements of the officer and prior salary and compensation arrangements, as well as comparative peer group analyses. Base salary (gross) paid to the Covered Officers A, D, B, C and H for the year ended December 31, 2020, amounted to \$0.73 million, \$0.38 million, \$0.32 million, \$0.29 million and \$0.29 million, respectively. Executive officers are entitled to social and other benefits in accordance with applicable law, our policies and common practice. The cost of social and other benefits awarded to the Covered Officers A, D, B, C and H for the year ended December 31, 2020, amounted to \$0.17 million, \$0.11 million, \$0.17 million, \$0.16 million and \$0.06 million, respectively. In addition, relocation and related reimbursement expenses awarded to Covered Officers A and H for the year ended December 31, 2020, amounted to \$0.28 million and \$0.27 million, respectively. No relocation related payments or accruals were made to any of Covered Officers B, C and D during the year ended December 31, 2020.

Our policy is to award annual cash bonuses to executive officers, subject to the attainment of pre-determined annual measurable objectives, which are set in the first quarter of each year, and personal performance evaluation. In accordance with our compensation policy, the pre-defined annual bonus plans include measurable metrics and the weight (in percentage terms) of each metric as a portion of the annual measurable metrics, as well as a minimum threshold for achievement of corporate measurable metrics below which no portion of the pre-determined corporate measurable metrics component of the annual bonus will be awarded, and a portion of the annual bonus is based on performance valuation, in accordance with our compensation policy and subject to applicable law. The cash bonus gross amounts paid by the Company to the Covered Officers A, D, B, C and H for the year ended December 31, 2020, amounted to \$0.99 million, \$0.32 million, \$0.29 million, \$0.27 million and \$0.22 million, respectively.

Equity based compensation for directors and officers is intended to be in the form of restricted stock units (“RSUs”), performance-based stock units (“PSUs”), options and/or other equity forms, in accordance with our equity-based compensation policies and programs in place from time to time and in accordance with our compensation policy. Equity-based compensation may be granted as an annual grant and/or from time to time and is individually determined. Generally, equity-awards shall not begin to vest before the end of the first year from the date of grant. We calculate the fair market value of equity-based compensation for officers and directors at the time of grant according to the Black-Scholes model, binomial model or any other best practice or commonly accepted equity-based compensation valuation model, when such award is duly approved in accordance with applicable law, and amortize such value over the applicable vesting schedule. Total value of equity based compensation to the Covered Officers A, D, B, C and H recorded for the year ended December 31, 2020 (calculated based on the total amortization cost recorded in the Company’s statement of operations for the year ended December 31, 2020 with respect to all equity-based grants to the Covered Officers), amounted to \$3.45 million, \$0.88 million, \$0.88 million, \$0.77 million and \$0.45 million, respectively.

Under our compensation policy, we may grant our executive officers certain termination and retirement payments, including a change of control bonus, subject to the termination of employment of such officer upon a change of control and subject to receipt of applicable corporate approvals as required by law. In accordance with our compensation policy and the employment terms of our chief executive officer, upon termination of his employment, including upon a change of control, our chief executive officer may be eligible for a payment of twelve monthly base salaries, and in the event of termination of his employment upon a change of control, he may also be entitled to acceleration of all unvested equity. In addition, under our compensation policy, upon a change of control, all other executive officers may be entitled to a payment in the amount of up to nine months’ base salary and acceleration of all unvested equity, and the chairman of the board of directors and other directors may be entitled to acceleration of all unvested equity. No such payment or accrual was made or earned year ended December 31, 2020.

At our 2020 annual general meeting held on September 17, 2020, our shareholders approved an equity grant to our chief executive officer in the value of \$5.1 million, 40% of which is time-based vesting RSUs and 60% of which is PSUs, both vesting over a three year period. With respect to the PSUs, one third shall vest each year over a three year period from the date of grant subject to the attainment of certain defined financial performance metrics of net profit and cash from operations for the year ended December 31, 2020, weighted equally. Actual net profit for 2020 was \$82.3 million and cash from operations for 2020 was \$276.6 million. Since these 2020 actual financial results exceeded the defined financial performance metrics for the vesting of the PSUs, the chief executive officer shall be entitled to all of the PSUs, subject to the time vesting described above. For further details, see our proxy statement for the 2020 annual general meeting of shareholders, filed with the SEC on Form 6-K on August 3, 2020.

Following the approval of our shareholders at the 2020 annual general meeting and consistent with our compensation policy, we pay each of our directors (other than our chief executive officer who also serves as a director, whose compensation is detailed above, and the chairman of our board of directors, whose compensation is detailed below): (i) an annual fee of \$52,500; and (ii) a committee membership fee of up to \$6,000 annually and an additional fee of up to \$3,000 annually for each committee chairperson; as well as reimbursement for reasonable travel and other expenses in accordance with our policies. In addition, the board of directors may compensate directors for special activities that are performed under special circumstances, in the amount of up to \$2,000 per meeting. With regards to the chairman of our board of directors, our shareholders approved the payment of an annual cash fee of \$300,000 (paid in monthly installments) and the award of time-based vesting RSUs in the value of \$300,000, which vest in three equal installments on each of the three anniversaries of the date of grant. If the service of the chairman of our board of directors is terminated for any reason other than for cause, including by way of resignation, prior to the third anniversary from the date of grant, all his unvested RSUs shall be accelerated. Furthermore, our shareholders approved the award to each of our directors (other than our chief executive officer and the chairman of our board of directors, whose compensation is detailed above) of time vested RSUs in the value of \$100,000, which vest over a two-year period, with 50% vesting at the end of each of the two anniversaries of the date of grant. In the event any such director's service is terminated for any reason other than for cause, including by way of resignation, prior to the second anniversary of the date of grant, (i) if such director has served on the board of directors for five years or more, all his/her unvested RSUs shall be accelerated; and (ii) if such director has served on the board of directors for less than five years, 50% of all his/her unvested RSUs shall be accelerated.

We have entered into exemption and indemnification agreements with each of our officers and directors, pursuant to which, subject to the limitations set forth in the Companies Law, the Israeli Securities Law, 1968 and our articles of association, they will be exempt from liability for breaches of the duty of care and we agreed to indemnify them for certain costs, expenses and liabilities with respect to events specified in such agreements. In addition, our officers and directors are currently covered by a directors' and officers' liability insurance policy.

### **Equity Incentive Plans**

In 2013, the Company adopted a share incentive plan for its directors, officers, employees and its subsidiaries' employees (the "2013 Plan"). In accordance with our compensation policy, the aggregate amount of outstanding equity-based compensation awarded by the Company at any time shall not exceed 10% of the fully-diluted share capital of the Company, as calculated at the time of grant (which fully-diluted share capital will be calculated pro-forma after taking into account the proposed grants and shares underlying all outstanding equity-based awards).



As of December 31, 2020, approximately 1.21 million options, RSUs and PSUs outstanding under the 2013 Plan were awarded to our directors and senior management, of which approximately 0.49 million were awarded to our chief executive officer and approximately 0.03 million were awarded to the chairman of our board of directors.

In September 2020, pursuant to the approval of our shareholders at the 2020 annual general meeting, we granted the following equity awards to the chief executive officer, chairman of the board of directors and other directors under the 2013 Plan: (i) 108,620 time-based vesting RSUs and 162,931 PSUs to the chief executive officer, as detailed above, for a total compensation value of approximately \$5.1 million; (ii) 15,915 time-based vesting RSUs to the chairman of the board of directors, as detailed above, for a total compensation value of approximately \$0.3 million; and (iii) 5,305 time-based vesting RSUs to nine directors who served on the board of directors at the time of such shareholder meeting (excluding the chairman and the chief executive officer), as detailed above, for a total compensation value of approximately \$0.9 million.

In addition, during 2020, we granted an aggregate of approximately 0.12 million time-based RSUs and approximately 0.18 million PSUs to our senior management described in Item 6A (excluding the chief executive officer) under the 2013 Plan, vesting over a three year period, for a total compensation value of approximately \$7.0 million.

Our compensation policy includes minimum shareholding guidelines pursuant to which: (i) the chief executive officer is required to own ordinary shares in a minimum value that equals at least three times his annual base salary, commencing May 2024; and (ii) the directors and other executive officers are required to own ordinary shares in a minimum value that equals at least 50% of their respective annual fee or annual base salary, as applicable, commencing July 2025. The chief executive officer, other officers and directors have been provided five years from the date our board of directors approved their respective minimum shareholding guideline to accumulate such minimum holdings until such specified dates, and during such period they must retain at least 20% of the vested time-based RSUs that may be granted to them from the date the respective guideline was approved by the board of directors and until the respective minimum holding is met.

For further information concerning our employee equity plans and outstanding employee equity, see Note 15B to the consolidated financial statements included in this annual report.

### **C. BOARD PRACTICES**

#### ***Board of Directors***

Our Articles of Association provide that the Board of Directors shall consist of at least five and no more than 11 members. Our Board of Directors is currently comprised of nine directors. Our directors are elected by the general meeting of our shareholders by the vote of a majority of the ordinary shares present, in person or by proxy, and voting at that meeting. Generally, our directors hold office until their successors are elected at the next annual general meeting of shareholders (or until any of their earlier resignation or removal in accordance with the Companies Law). In addition, our Articles of Association allow our board of directors to appoint directors (other than the external directors) to fill vacancies on our board of directors, until the next annual general meeting of shareholders.

### ***Alternate Directors***

Our Articles of Association provide that any director may, subject to the approval of the Board of Directors, appoint another person to serve as an alternate director, and may cancel such appointment, by delivering written notice to the alternate director and to the Company. Any person who is qualified to serve as a director, and who is not already serving as a director or an alternate director, may act as an alternate director, and the same person may not act as the alternate for more than one director at a time. An alternate director has the same rights and responsibilities as a director, and the appointment of an alternate director does not relieve the appointing director from his/her responsibilities as a director. 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 or until the director who appointed the alternate ceases to serve as a director of the Company.

### ***External Directors***

The Companies Law requires Israeli companies with shares that have been offered to the public in or outside of Israel to appoint no less than two external directors. However, pursuant to the Companies Regulations (Relief for Companies Whose Shares are Registered for Trading Outside of Israel) – 2000 (the “Relief Regulations”), an Israeli public company may elect to exempt itself from the requirement to appoint external directors if it meets all of the following conditions:

- The company’s shares are listed on certain foreign stock exchanges listed in the Relief Regulations, which include the NASDAQ Global Select Market;
- The company does not have a controlling shareholder; and
- The company complies with the requirements of the securities laws and stock exchange regulations in the foreign jurisdiction where its shares are listed relating to the appointment of independent directors and composition of audit and compensation committees as applicable to companies that are incorporated under the laws of such foreign jurisdiction.

Pursuant to the Relief Regulations, Israeli public companies that meet the above conditions may opt to comply with the applicable rules in the foreign jurisdiction governing the appointment of independent directors and composition of audit and compensation committees as applicable to domestic issuers in the foreign jurisdiction (which with respect to the Company are the Nasdaq Listing Rules and the rules under the Securities Exchange Act of 1934 (the “Exchange Act”)) instead of complying with the Companies Law provisions relating to (i) the appointment of external directors; (ii) certain limitations on the employment or service of an outside director or his or her spouse, children or other relatives, following the cessation of the service as an outside director, by or for the company, its controlling shareholder or an entity controlled by the controlling shareholder; (iii) the composition, meetings and quorum of the audit committee; and (iv) the composition and meetings of the compensation committee. If a company has elected to avail itself from the requirement to appoint external directors and at the time a director is appointed all members of the board of directors are of the same gender, a director of the other gender must be appointed.

Following analysis of our qualification to rely on the exemption, in September 2016, our Board of Directors determined to adopt the exemption, effective as of November 1, 2016. If in the future we were to have a controlling shareholder, we would again be required to comply with the requirements relating to external directors and the composition of the audit committee and compensation committee under Israeli law.

### ***Director Independence***

In accordance with exemptions from the Israeli law requirements to have external directors serving on our Board of Directors, we comply with the director independence requirements and the audit committee and compensation committee composition requirements under U.S. laws (including applicable Nasdaq Capital Market rules) applicable to U.S. domestic issuers. In addition, the composition of our corporate governance and nominating committee complies with the requirements of the Nasdaq Capital Market rules applicable to U.S. domestic issuers. Under the Nasdaq Listing Rules, a majority of the board of directors must be comprised of independent directors (as defined in the Nasdaq Listing Rules). Our board of directors has made a determination of independence under the Nasdaq Listing Rules with respect to all directors, other than Mr. Ellwanger, our Chief Executive Officer.

## ***Audit Committee***

Our audit committee currently consists of Mr. Yoav Z. Chelouche, Mr. Ilan Flato, Mr. Avi Hasson and Mrs. Iris Avner. Mr. Yoav Z. Chelouche serves as the audit committee chairman.

### ***Composition requirements***

The Companies Law requires public companies to appoint an audit committee; however, following the Company's determination to follow the relief provided under the Relief Regulations, as described above, the composition of our audit committee is governed by the rules set forth in the Nasdaq Listing Rules and the Exchange Act.

Under Nasdaq Listing Rules, we are required to maintain an audit committee consisting of at least three independent directors (within the meaning of the Exchange Act and Nasdaq Listing Rules), each of whom must meet certain requirements for financial literacy and one of whom has accounting or related financial management expertise, and none of whom has participated in the preparation of our or any of our subsidiaries financial statements at any time during the prior three years.

The Board of Directors has determined that all of the members of the audit committee meet the independence and financial knowledge requirements for audit committee service of the Nasdaq Listing Rules and the Exchange Act, as well as the Nasdaq Listing Rules requirement regarding financial sophistication. In addition, our Board of Directors has determined that each member of our audit committee is an audit committee financial expert pursuant to the applicable SEC rules.

### ***Audit Committee role***

Our board of directors has adopted an audit committee charter setting forth the responsibilities of the audit committee consistent with the Companies Law, the SEC rules and the Nasdaq Listing Rules, which include:

- retaining and terminating our independent auditors, subject to the ratification of the board of directors, and in the case of retention, to that of the shareholders, as applicable in accordance with the Companies Law;
- pre-approving of audit and non-audit services and related fees and terms, to be provided by the independent auditors;
- overseeing the accounting and financial reporting processes of our company and audits of our financial statements, the effectiveness of our internal control over financial reporting and making such reports as may be required of an audit committee under the rules and regulations promulgated under the Exchange Act;
- reviewing with management and our independent auditor our annual and quarterly financial statements prior to publication or filing (or submission, as the case may be);
- recommending to the board of directors the retention and termination of the internal auditor, and the internal auditor's engagement fees and terms, in accordance with the Companies Law as well as approving the yearly or multi-year plan proposed by the internal auditor, and review the results and findings of internal audits;

- overseeing Company risk assessment and reviewing regulatory compliance;
- determining whether to approve certain related party transactions (including transactions in which an office holder has a personal interest) and whether any such transaction is extraordinary or material under Companies Law;
- determining whether a competitive process must be implemented for the approval of certain transactions with controlling shareholders or its relative or in which a controlling shareholder has a personal interest (whether or not the transaction is an extraordinary transaction), under the supervision of the audit committee or other party determined by the audit committee and in accordance with standards to be determined by the audit committee, or whether a different process determined by the audit committee should be implemented for the approval of such transactions;
- determining the process for the approval of certain transactions with controlling shareholders or in which a controlling shareholder has a personal interest that the audit committee has determined are not extraordinary transactions but are not immaterial transactions; and
- responsible for the handling of employees' complaints as to the management of our business and the protection to be provided to such employees.

### ***Compensation Committee***

Our compensation committee is comprised of Mr. Ilan Flato, Mr. Avi Hasson and Mrs. Dana Gross. Mrs. Dana Gross serves as the compensation committee chairperson.

### ***Composition requirements***

The Companies Law requires public companies to appoint a compensation committee; however, following the Company's determination to adopt the relief provided under the Relief Regulations, as described above, the composition of our compensation committee is governed by the rules set forth in the Nasdaq Listing Rules and the Exchange Act.

Under the Nasdaq Listing Rules, we are required to maintain a compensation committee consisting of at least two directors, each of whom is an independent director within the meaning of the Nasdaq Listing Rules.

The Board of Directors has determined that all of the members of the compensation committee meet the independence requirements for compensation committee service of the Nasdaq Listing Rules and the Exchange Act.

### ***Compensation Committee role***

Our board of directors adopted a compensation committee charter, which sets forth the responsibilities of the compensation committee consistent with the Nasdaq Listing Rules and the requirements for compensation committees under the Companies Law, including the following:

- recommending to the Board of Directors for its approval (i) a compensation policy for officers and directors, (ii) once every three years, whether to extend the compensation policy, subject to receipt of the required corporate approvals approval (either a new compensation policy or the continuation of an existing compensation policy must in any case occur every three years); and (iii) periodic updates to the compensation policy. In addition, the compensation committee is required to periodically review the implementation of the compensation policy;

- approving transactions relating to the terms of office and employment of office holders (within the meaning of the Companies Law), which require the approval of the compensation committee pursuant to the Companies Law; and
- reviewing and approving equity grants to non-executive employees under our equity-based incentive plans.

### ***Corporate Governance and Nominating Committee***

Our corporate governance and nominating committee is comprised of Mr. Kalman Kaufman, Mrs. Dana Gross, Ms. Michal Vakrat Wolkin and Yoav Z. Chelouche. Mr. Kalman Kaufman serves as the corporate governance and nominating committee chairman.

Our board of directors has adopted a corporate governance and nominating committee charter setting forth the responsibilities of the corporate governance and nominating committee, which include:

- overseeing and assisting our board of directors in reviewing and recommending nominees for election as directors;
- assessing the performance of the members of our board of directors;
- reviewing and recommending to our board of directors the structure and members of committees of the board;
- assisting our board of directors in carrying out its responsibilities related to chief executive officer succession planning;
- reviewing and overseeing our corporate governance practices and communication plans for shareholder meetings and to promote effective communication for shareholder meetings; and
- overseeing our commitment to Environmental, Social and Governance (ESG) matters and advising our board of directors on such matters.

### ***Internal Auditor***

Under the Companies Law, the board of directors of an Israeli public company must appoint an internal auditor, who is 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 Companies Law, the internal auditor may be an employee of the company but not an office holder (within the meaning of the Companies Law) or an interested party (i.e., a person who holds more than 5% of the Company's outstanding shares or voting rights or who has the power to appoint a director or the general manager of the company) or a relative of an office holder or interested party, and may not be the company's independent auditor or its representative. Gabriel David, an employee of our company, serves as our internal auditor.

### ***Director Service Contracts***

Other than under the employment agreement with Mr. Russell Ellwanger, our Chief Executive Officer and a director, as detailed in "Item 6. Directors, Senior Management and Employees—B. Compensation," we do not have written agreements with any director providing for benefits upon the termination of his or her services with our Company.

## **D. EMPLOYEES**

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

	As of December 31,		
	2020	2019	2018
Process and product engineering, R&D and design	994	1,040	1,065
Manufacturing and operations	3,858	3,569	3,860
Manufacturing support	386	385	394
Sales and marketing, finance & administration	273	285	267
<b>Total</b>	<b>5,511</b>	<b>5,279</b>	<b>5,586</b>

As of December 31, 2020, we had 1,518 employees located in Israel, 1,416 employees located in the United States, 2,561 employees located in Japan and 16 employees located in other countries in Asia Pacific.

Other than a special collective agreement relating to our Israeli employees regarding employer payments to pension funds of such employees, as described below, our employees in Israel are not covered under a collective bargaining agreement. However, in Israel we are subject to certain labor statutes and national labor court precedent rulings, as well as to certain provisions of the collective bargaining agreements between the Histadrut (General Federation of Labor in Israel) and the Coordination Bureau of Economic Organizations, by virtue of expansion orders issued in accordance with relevant labor laws by the Israeli Ministry of Labor and Welfare, and which apply such agreement provisions to our employees even though they are not directly part of a union that has signed a collective bargaining agreement. The labor laws and court rulings that apply to our employees principally concern the minimum wage laws, procedures for dismissing employees, determination of severance pay, leaves of absence (such as annual vacation or maternity leave), sick pay and other conditions for employment. The expansion orders that apply to our employees principally concern the requirement for length of the workday and workweek, mandatory employer's payments to employees' pension funds, annual recreation allowance, travel expenses payment and other conditions of employment.

Under the special collective bargaining agreement to which we are party relating to our Israeli employees, we are required to pay funds to an employee's insurance fund and/or pension fund. Such funds generally provide a combination of savings plans, insurance and severance pay benefits to the employee, securing his or her right to receive pension or giving the employee a lump sum payment upon retirement, under certain circumstances, if legally entitled, upon termination of employment. Tower's Israeli employees pay an amount equal to 6% of his or her wages to the insurance fund or pension fund, and Tower pays an additional 14.83% to 15.83% of the employee's wages to such funds. Israeli law generally requires severance pay upon the retirement or death of an employee or termination of employment by the employer without due cause. Under the special collective bargaining agreement, Section 14 to the Israeli Severance Pay Law, 5723-1963 applies to Tower, according to which the employer's payments to severance pay is in lieu of payment of severance pay upon termination of employment. Therefore, the monthly payments as mentioned above constitute the entire required payments for severance pay, and we are not required to pay any additional sum upon termination of employment of our Israeli employees for the period during which Sections 14 applies.

A portion of the employees at its Newport Beach, California fab are represented by a union and covered by a collective bargaining agreement. NPB Co. maintains a defined benefit pension plan for certain of its employees covered by a collective bargaining agreement that provides for monthly pension payments to eligible employees upon retirement. The pension benefits are based on years of service and specified benefit amounts. In addition, the bargaining agreement includes a post-retirement medical plan for certain employees. Certain eligible bargaining union employees who terminate employment are provided with a lump-sum benefit payment.

Most of TPSCo's employees at its Japan fabs are represented by a union and covered by a collective bargaining agreement. TPSCo established a Defined Contribution Retirement Plan (the "DC Plan") for its employees, through which TPSCo pays approximately 9% with employee average match of 1% from employee base salary to the DC Plan. Such payment releases the employer from further obligation to any payments upon termination of employment. The payment is remitted either to third party benefit funds that are responsible to invest the funds based on employee preference, or directly, to those employees who elected not to enroll in the DC Plan.

#### E. SHARE OWNERSHIP

As of March 31, 2021, no individual director or senior manager beneficially owned (determined in accordance with the rules of the SEC) one percent or more of our outstanding ordinary shares. As of March 31, 2021, our directors and senior managers held options and restricted stock units to purchase an aggregate of 1.27 million of our ordinary shares. The options have an average exercise price of \$17.6 per share and expire by April 2022. For information regarding our equity-based incentive plans, see Note 15B to our consolidated financial statements included in this annual report.

#### ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

##### A. MAJOR SHAREHOLDERS

Information concerning the beneficial ownership (as defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) of our ordinary shares by any person who is known to us to beneficially own 5% or more of our issued and outstanding ordinary shares as of March 31, 2021 is set forth below. The percentage of beneficial ownership of our ordinary shares is based on 106.8 million ordinary shares issued and outstanding as of March 31, 2021.

The voting rights of our major shareholders do not differ from the voting rights of other holders of our ordinary shares.

Name of Beneficial Owner	Ordinary Shares Beneficially Owned	
	Number	Percent (1)
Wellington Management Group LLP (2)	8,756,782	8.11%
Senvest Management, LLC (3)	7,604,946	7.04%
Phoenix Holdings Ltd. (4)	6,549,601	6.07%
Harel Insurance Investments & Financial Services Ltd. (5)	5,915,557	5.48%

(1) In accordance with the rules of the SEC, assumes (i) the holder's beneficial ownership of outstanding ordinary shares and all ordinary shares that the holder has a right to purchase within 60 days of March 31, 2021; and (ii) no other exercisable or convertible securities held by other holders has been exercised or converted into ordinary shares.

(2) Based solely upon, and qualified in its entirety with reference to, a notice provided to the Company by Wellington Management Group LLP. as of March 31, 2021.

(3) Based solely upon, and qualified in its entirety with reference to, a notice provided to the Company by Senvest Management, LLC as of March 31, 2021.

(4) Based solely upon and qualified in its entirety with reference to, a notice provided to the Company by Phoenix Holdings Ltd. as of March 31, 2021.

(5) Based solely upon and qualified in its entirety with reference to, a notice provided to the Company by Harel Insurance Investments & Financial Services Ltd. as of March 31, 2021.

As of April 1, 2021, based on information provided to us by our transfer agent in the United States, there were a total of 12 holders of record of our ordinary shares, of which 8 were registered with addresses in the United States. Such U.S. record holders were, as of such date, the holders of record of approximately 70% of our outstanding ordinary shares. The number of record holders in the United States is not representative of the number of beneficial holders nor is it representative of where such beneficial holders are resident since many of these ordinary shares were held by brokers or other nominees (including one U.S. nominee company, CEDE & Co., which held approximately 70% of our outstanding ordinary shares as of such date, including those held for the benefit of the Tel Aviv Stock Exchange clearing house as a member of Depository Trust Company).

## **B. RELATED PARTY TRANSACTIONS**

Other than the executive and director compensation, executive officer employment agreements, indemnification and exculpation arrangements and directors' and officers' liability insurance policy, as discussed elsewhere in the annual report, for the years 2018, 2019 and 2020 and up to the date of the document, we have not been and are not a party to any transactions in which any of our directors, executive officers or holders of 5% or more of our share capital, or any immediate family member of, or person sharing the household with, any of these individuals or entities, had or will have a direct or indirect material interest. For additional information, see Note 18 to the consolidated financial statements included herein.

## **C. INTERESTS OF EXPERTS AND COUNSEL**

Not applicable.

# **ITEM 8. FINANCIAL INFORMATION**

## **A. CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION**

### **Consolidated Financial Statements.**

See "Item 18 – Financial Statements".

### **Legal Proceedings**

NPB Co. leases its fabrication facilities and offices under an operational lease agreement that was initially in effect until March 2022 and provided NPB Co. an option, at its sole discretion, to extend the lease for an additional five year period, which NPB Co. elected to exercise for the lease to continue through March 2027. In the amendments to its lease, (i) NPB Co. secured various contractual safeguards designed to limit and mitigate any adverse impact of construction activities on its fabrication operations; and (ii) the lease agreement includes certain obligations, including certain noise abatement actions in relation to the fabrication facility. The landlord is claiming that noise abatement actions that have been implemented according to the obligations under the lease agreement are not adequate under the terms of the lease agreement, which he claims may give him the right to terminate the lease and/or NPC Co.'s option to extend the lease. NPB Co. does not agree with, and is disputing, these claims. See "Item 3. Key Information—D. Risk Factors—Risks Affecting Our Business— *Risks relating to construction activities adjacent to Fab 3 and our Fab 3 lease could harm our operations and financial results.*"

### **Dividend Policy**

We currently intend to retain our cash balance, deposits, investments in marketable securities and future earnings to finance our growth and acquisition strategy, as well as capacity growth and our ongoing operations. Our board of directors has sole discretion whether to pay dividends. We do not anticipate paying any dividends in the foreseeable future. If our board of directors will decide to pay dividends, the form, frequency and amount will depend upon our future growth and acquisition strategy, as well as our capacity growth plans, future operations and earnings, capital requirements and surplus, general financial condition, contractual and legal restrictions and other factors that our directors may deem relevant. The Companies Law imposes restrictions on our ability to declare and pay dividends. Furthermore, under the indenture for our Series G Debentures, a distribution of dividends is subject to us satisfying certain financial covenants and is subject to certain limitations. Payment of dividends may be subject to Israeli withholding taxes. See "Item 10. Taxation—E. Israeli Taxation" for additional information.



## **B. SIGNIFICANT CHANGES**

No significant change has occurred since December 31, 2020, except as disclosed in this annual report.

### **ITEM 9. THE OFFER AND LISTING**

Our ordinary shares are listed and traded on the NASDAQ Stock Market (on the NASDAQ Global Market through March 16, 2012, on the NASDAQ Capital Market from March 17, 2012 through September 6, 2012, and on the NASDAQ Global Select Market since that date) and on the Tel Aviv Stock Exchange (TASE) under the symbol "TSEM".

### **ITEM 10. ADDITIONAL INFORMATION**

#### **A. SHARE CAPITAL.**

Not applicable.

#### **B. MEMORANDUM AND ARTICLES OF ASSOCIATION**

A copy of our Articles of Association is attached as Exhibit 1.1 to this annual report, as amended by Exhibits 1.2-1.7 to this annual report. Other than as disclosed below, the information called for by this Item is set forth in Exhibit 2.1 to this annual report and is incorporated by reference into this annual report.

#### **Registration Number and Purposes**

Our registration number with the Israeli Companies Registrar is 520041997. Pursuant to Section 4 of our Articles of Association, our objective is to engage in any lawful activity.

#### **Shareholder Meetings**

Under Israeli law and our Articles of Association, we are required to hold an annual general meeting of shareholders each year that must be held no later than 15 months from the last annual meeting, upon at least 21 days' prior notice to our shareholders.

A special meeting may be convened by the Board of Directors, at such times as it deems fit, and it is required to convene a special meeting at the request of (i) any two directors or twenty-five percent of the board members or (ii) 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 of Directors must convene a special meeting and provide notice for the meeting setting forth the date, time and place of the meeting, which generally shall not be convened more than 35 days after the notice for the meeting. If the special meeting is not convened by the Board of Directors as set forth above, the person who requested the Board to convene the meeting may convene the meeting, in the same manner a special meeting is convened by the Board of Directors, provided that such meeting shall not be held after three months have elapsed from the date the request was submitted.

Pursuant to the Companies Law and our Articles of Association, resolutions regarding the following matters are required to be approved by our shareholders at a general meeting by an ordinary resolution.

- amendments to our Articles of Association;
- appointment, terms of engagement and termination of engagement of our independent auditors;
- appointment and dismissal of our directors;
- approval of certain related party transactions and certain officer and director compensation;
- increase or reduction of authorized share capital in accordance with the provisions of the Companies Law or the rights of shareholders or a class of shareholders;
- any merger; and
- the exercise of the Board of Directors' powers by the 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.

Subject to the provisions of the Companies Law and regulations promulgated thereunder, shareholders entitled to participate and vote at general meetings are the shareholders of record on a date to be decided by the board of directors, which, as a company listed on an exchange outside Israel, may be between four and 40 days prior to the date of the meeting.

The Companies Law requires that a notice of any annual general meeting or special general meeting be provided to shareholders at least 21 days prior to the meeting and if the agenda of the meeting includes, among other things, the appointment or removal of directors, the approval of transactions with office holders or interested or related parties, an approval of a merger or the approval of the compensation policy, notice must be provided at least 35 days prior to the meeting.

### ***Borrowing Powers***

Our Board of Directors may, from time to time, at its discretion, approve the receipt of credit by the Company in any amount and the discharge thereof, in such manner as it deems fit, as well as the award of collateral to secure any such credit, of whatsoever type. The Board of Directors may, from time to time, at its discretion, approve the issue of a series of debentures, including capital notes or bonds, and including debentures, capital notes or bonds convertible or exercisable into shares, and determine the terms thereof, and to charge all or any of our present or future property by way of a floating or fixed charge. In accordance with our Articles of Association, debentures, capital notes, bonds or other securities, as aforesaid, may be issued at a discount, with a premium or in any other manner, with deferred rights, special rights, privileges or other rights, all as determined by the board of directors at its discretion.

### **C. MATERIAL CONTRACTS**

For information regarding material contracts see Notes 10, 11, 12, 13, 14 and 15 to our consolidated financial statements for the year ended December 31, 2020 and the agreements described under the caption "Item 5. Operating and Financial Review and Prospects - B. Liquidity and Capital Resources".

#### ***TPSCo Agreements***

In March 2014, we acquired a 51% equity stake in TPSCo from Panasonic. Panasonic transferred its semiconductor wafer manufacturing process and 8 inch and 12 inch capacity tools at its three fabs (Uozu E, Tonami CD and Arai E) to TPSCo, and entered into a manufacturing agreement with TPSCo for a period of five years of volume production. In June 2014, Panasonic's shares in TPSCo were transferred, and its rights and obligations were assigned, to its wholly-owned subsidiary, PSCS. In March 2019, agreements were signed between Tower and/or TPSCo and PSCS to extend the business relationship by an additional three-year period under certain amended terms, including a manufacturing agreement between TPSCo and PSCS, under which TPSCo manufactures products for PSCS under a revised pricing structure. TPSCo leases its fabrication facility buildings in Japan from NTCJ under a long-term capital lease that was renewed in 2020 for continuation of the lease until at least March 2032. In September 2020, Panasonic sold its shares in PSCS to Nuvoton Technology Corp. (a Taiwan-based semiconductor company, majority-owned by Winbond Electronics Corporation, a Taiwan-based specialty memory integrated circuits company), which assumed and continues performance of the agreements previously signed between Tower, Panasonic, PSCS and/or TPSCo.

## D. EXCHANGE CONTROLS

There are currently no Israeli government laws, decrees, regulations or other legislation that restrict or affect our import or export of capital, including the availability of cash and cash equivalents for use by us, or the remittance of dividends, interest or other payments to holders of our securities that are non-residents of Israel, except under certain circumstances, for nationals of countries that are, or have been, in a state of war with Israel.

## E. TAXATION

The discussion below 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 the acquisition, ownership and disposition of our securities or to reflect the views of the relevant tax authorities, and it is not meant to replace professional advice in these matters. The discussion below is based on current, applicable tax law, which may be changed by future legislation or reforms. Non-residents should obtain professional tax advice with respect to the tax consequences of acquiring, holding or selling our securities under the laws of their countries of residence of acquiring, holding or selling our securities.

### Israeli Taxation

#### *General Corporate Tax*

Israeli companies are subject to corporate tax at the rate of 23% commencing 2018. However, the effective corporate tax rate payable by a company which derives income from a "Preferred Enterprise" (as further discussed below) may be considerably less.

#### *Israeli Tax on Capital Gains*

An individual is subject to a tax at a rate of 25% on real capital gains derived from the sale of shares, unless such individual claims a deduction for interest and linkage differences expenses in connection with the purchase and holding of such shares and as long as the individual is not a "substantial shareholder" in the company issuing the shares.

A "substantial shareholder" is generally a person who alone, or together with his relative or another person who collaborates with him on a regular basis, holds, directly or indirectly, at least 10% of any of the "means of control" of the corporation. "Means of control" generally include the right to vote, receive profits, nominate a director or an officer, receive assets upon liquidation, or instruct someone who holds any of the aforesaid rights regarding the manner in which he or she is to exercise such right(s), and all regardless of the source of such right.

An individual who is a substantial shareholder at the time of sale or at any time during the preceding 12-month period, is subject to tax at a rate of 30% in respect of real capital gains derived from the sale of shares issued by the company in which he or she is a substantial shareholder.

Individual shareholders dealing in securities in Israel are taxed at their marginal tax rates applicable to business income (up to 47% from 2017).

Under present Israeli tax legislation, the tax rate applicable to real capital gain derived by Israeli resident corporations from the sale of shares of an Israeli company is the general corporate tax rate at a rate of 23% from 2018 onwards.

Non-Israeli residents are exempt from Israeli capital gains tax on any gains derived from the sale of shares in an Israeli corporation publicly traded on the TASE and/or on a foreign stock exchange, provided such gains do not derive from a permanent establishment of such shareholders in Israel and that such shareholders did not acquire their shares prior to the issuer's initial public offering. However, non-Israeli corporations will not be entitled to such exemption if Israeli residents (i) have a controlling interest of more than 25% in such non-Israeli corporation, or (ii) are the beneficiaries of or is entitled to 25% or more of the revenues or profits of such non-Israeli corporation, whether directly or indirectly. In addition, the sale of the shares may be exempt from Israeli capital gains tax under the provisions of an applicable tax treaty. For example, the Convention between the Government of the United States of America and the Government of Israel with respect to taxes on income, or the "US-Israel Tax Treaty," generally exempts U.S. residents from Israeli capital gains tax in connection with such sale, provided that (i) the U.S. resident owned, directly or indirectly, less than 10% of the Israeli resident company's voting power at any time within the 12-month period preceding such sale; (ii) the seller, if an individual, has been present in Israel for less than 183 days (in the aggregate) during the taxable year; and (iii) the capital gain from the sale was not generated through a permanent establishment of the U.S. resident in Israel.

The purchaser of the shares, the stockbrokers who effected the transaction or the financial institution holding the shares through which payment to the seller is made are obligated, subject to the above-referenced exemptions if certain conditions are met, to withhold tax on the real capital gain resulting from a sale of shares at the rate of 25%.

#### *Israeli Tax on Interest Income and on Original Issuance Discount*

Interest and Original Issuance Discount (OID) on our Series G debentures are, in general, subject to Israeli tax of up to 15% (which would be withheld at source) if received by an individual. However, tax at the marginal rate (up to 47%) shall apply, if one of the following applies:

- if the interest or OID are business income in the hands of the recipient,
- if the interest is recorded or should be recorded in the individual's accounting books,
- if the recipient is a substantial shareholder of the company,
- if financing expenses related to the purchase of the debentures were deducted by the individual in the calculation of the individual's Israeli taxable income, or
- if the individual is an employee, supplier, or service provider of the company or has another special relationship with the company and the tax authorities have not been persuaded that the payment of interest was not affected by the relationship between the parties.

Interest and OID paid on our Series G debentures to Israeli corporations will, in general, be subject to withholding tax at a rate of 23% from 2018 onwards.

Interest and OID paid on our debentures to non-Israeli residents may be subject to lower withholding tax in an applicable tax treaty. For example, under the US-Israel Tax Treaty, the maximum Israeli tax withheld on interest and OID paid to a US resident (other than with respect to payments attributed to a permanent establishment in Israel) is 17.5%.

Interest, OID or inflation linkage differentials paid to a non-Israeli resident who does not have a permanent establishment in Israel, on debentures issued by an Israeli corporation and which are traded on the TASE, are generally exempt from taxes in Israel. However, this exemption from taxes will not apply (and consequently tax will be withheld at source):

- if the recipient is a substantial shareholder of the company,
- if the recipient is an affiliate of the company, or
- if the individual is an employee, supplier, or service provider of the company and the tax authorities have not been persuaded that the payment was not affected by the relationship between the parties.

#### *Israeli Tax on Dividend Income*

Israeli resident corporations are generally exempt from Israeli corporate tax for dividends paid on our ordinary shares.

On distributions of dividends other than bonus shares, or stock dividends, to Israeli and non-Israeli resident individuals and non-Israeli resident corporations, we would be required to withhold income tax at the rate of 25% (or 30% if such shareholder is a “substantial shareholder” at the time receiving the dividend or on any date in the 12 months preceding such date and the shares are not held through a nominee company). If the income out of which the dividend is being paid is attributable to a privileged Enterprise or Preferred Enterprise under the Investment Law, the rate is generally not more than 20%. A different rate may be provided for in an applicable tax treaty.

Under the US-Israel Tax Treaty, Israeli withholding tax on dividends paid to a US resident may not, in general, exceed 25%. Where the recipient is a US corporation owning 10% or more of the voting stock of the paying corporation during the part of the tax year which precedes the date of payment of the dividend and during the entire tax year preceding such year, the Israeli tax withheld may not exceed 12.5% or 15% in the case of dividends paid out of the profits of a corporation entitled to the benefits of the Investment Law, subject to certain conditions.

#### *Law for the Encouragement of Capital Investments, 5719-1959*

The Law for the Encouragement of Capital Investments, 5719-1959, generally referred to as the Investment Law, was originally enacted in order to provide certain incentives for capital investments in production facilities (or other eligible assets).

In recent years, the Investment Law has undergone major reforms and several amendments which were intended to provide expanded tax benefits and to simplify the bureaucratic process relating to the approval of investments qualifying under the Investment Law. The different benefits under the Investment Law depend on the specific year in which the enterprise received approval from the Investment Center or the year it was eligible for Approved/Privileged/Preferred Enterprise status under the Investment Law, and the benefits available at that time.

#### *Tax Benefits Prior to the 2005 Amendment*

Prior to an amendment to the Investment Law effective as of April 1, 2005, generally referred to as the 2005 Amendment, a capital investment in eligible production facilities (or other eligible assets) could, upon application to the Investment Center of the Israeli Ministry of Economy (formerly named the Ministry of Industry, Trade and Labor), generally referred to as the “Investment Center,” be designated as an “Approved Enterprise” and accordingly, entitled to certain tax benefits under the Investment Law. Each certificate of approval for an Approved Enterprise relates to a specific investment program in the Approved Enterprise, delineated both by the financial scope of the investment and by the physical characteristics of the facility or the asset.

Pursuant to the 2005 Amendment, a company whose facilities meet certain criteria set forth in the 2005 Amendment may claim certain tax benefits offered by the Investment Law (as further described below) directly in its tax returns, without the need to obtain prior approval. In order to receive the tax benefits, a company must make an investment which meets all of the conditions, including exceeding a minimum entitling investment amount, set forth in the Investment Law. Such investment allows a company to receive "Benefited Enterprise" status, and may be made over a period of no more than three years ending at the end of the year in which the company chose to have the tax benefits apply to its Benefited Enterprise, referred to as the "Year of Election."

The extent of the tax benefits available under the 2005 Amendment to qualifying income of a Benefited Enterprise depends on, among other things, the geographic location in Israel of the Benefited Enterprise. The location will also determine the period for which tax benefits are available.

The benefits available to a Benefited Enterprise are subject to the fulfillment of conditions stipulated in the Investment Law and its regulations. If a company does not meet these conditions, it may be required to refund the amount of tax benefits, as adjusted by the Israeli consumer price index, plus interest, or other monetary penalties.

*Tax Benefits under the 2011 Amendment and thereafter*

An amendment to the Investment Law that became effective on January 1, 2011, generally referred to as the 2011 Amendment, made significant changes to the Investment Law, which revamped the tax incentive regime in Israel. The main changes are, inter alia, as follows:

- Industrial companies meeting the criteria set out by the Investment Law for a "Preferred Income" of a "Preferred Enterprise" (as defined below) will be eligible for flat tax rates of 7.5% or 16% in 2017 and thereafter, with the actual tax rates determined by the location of the enterprise. The location of Tower's fabrication facilities in Israel (also referred to as "Zone A") entitles it to benefit from a tax rate of 7.5% on its Preferred Income. The tax incentives offered by the Investment Law are no longer dependent neither on minimum qualified investments nor on foreign ownership.
- A company can enjoy both government grants and tax benefits concurrently. Governmental grants will not necessarily be dependent on the extent of enterprise's investment in assets and/or equipment. The approval of "Preferred Enterprise" status by either the Israel Tax Authority or the Investment Center will be accepted by the other. Therefore, a Preferred Enterprise may be eligible to receive both tax incentives and government grants, under certain conditions.
- Under the transition provisions, any tax benefits obtained prior to 2011 shall continue to apply until expired, unless the company elects to apply the provisions of the new provisions to its income.

"Preferred Income" is defined as income from a Preferred Enterprise, as specified below, with the condition that the income was produced or arose in the course of the enterprise's ordinary activity in Israel from one of the following (excluding certain income derives from intangible assets which are not attributed to the enterprise's production): income from the sale of products of the Preferred Enterprise (including components that were produced by other enterprises); income from the sale of semiconductors produced by other non-related enterprises which use the Preferred Enterprise's self-developed know-how; income for providing a right to use the Preferred Enterprise's know how or software; royalties from the use of the know-how or software which was confirmed by the Head of the Investment Center to be related to the production activity of the Preferred Enterprise; and services with respect to the aforementioned sales. In addition, the definition of "Preferred Income" also includes income from the provision of industrial R&D services to foreign residents to the extent that the services were approved by the Head of Research for the Industrial Development and Administration.

A “Preferred Enterprise” is defined as an Industrial Enterprise (including, inter alia, an enterprise which provides approved R&D services to foreign residents), which generally more than 25% of its business income is from export. As mentioned above, these tax incentives no longer depend on minimum qualified investments nor on foreign ownership.

The Investment Law also determines the conditions and limitations applying to the tax benefits offered to a “Special Preferred Enterprise” (as defined below). A “Special Preferred Enterprise” will be able to enjoy corporate income tax rate in a rate of 5% if located in a preferred zone and 8% if not located in a preferred zone.

A “Special Preferred Enterprise” is defined as a Preferred Enterprise which meets all of the following conditions, during the relevant tax year: (a) its Preferred Income is equal to or exceeds NIS 1 billion; (b) the total income of the company which owns the Preferred Enterprise or which operates in the same field of the Preferred Enterprise and which consolidates in its financial reports the company that owns the Preferred Enterprise equals or exceeds NIS 10 billion; and (c) its business plan was approved by the authorities as significantly benefitting the Israeli economy.

Dividends paid out of income attributed to a Preferred Enterprise are generally subject to withholding tax at source at a rate of 20% or such lower rate as may be provided in an applicable tax treaty upon a request submitted by the recipient of such dividends. However, if such dividends are paid to an Israeli company no tax will be withheld (although, if such dividends are subsequently distributed to individuals or a non-Israeli company, withholding tax at a rate of 20% or such lower rate as may be provided in an applicable tax treaty will apply).

The provisions of the 2011 Amendment do not apply to existing Benefited Enterprises or Approved Enterprises, which will continue to be entitled to the tax benefits under the Investment Law as in effect prior to the 2011 Amendment. Nevertheless, a company owning such enterprises may choose to apply the 2011 Amendment to its existing enterprises while waiving benefits provided under the Investment Law as in effect prior to the 2011 Amendment. Once a company elects to be classified as a Preferred Enterprise under the provisions of the 2011 Amendment, the election cannot be rescinded and such company will no longer enjoy the tax benefits of its Approved/Privileged Enterprises.

As Tower’s fabrication facilities located in Israel qualify as a Preferred Enterprise, it is entitled to the 7.5% preferred tax rate described above with respect to its Preferred Income, and therefore, applies a 7.5% tax rate in determining its Israeli current tax provision, deferred tax assets and liabilities in connection with its Preferred Income. Tower has not yet notified the Israeli tax authorities of its election to apply the 7.5% tax rate to its Preferred Income since it is not required to do so due to Tower having significant accumulated net operating losses for tax purposes, which are carried forward with no expiration date.

#### *New tax benefits under the 2017 amendment that became effective on January 1, 2017*

The 2017 Amendment was enacted as part of the Economic Efficiency Law that was published on December 29, 2016, and became effective as of January 1, 2017. The 2017 Amendment provides new tax benefits for two types of “Technology Enterprises,” as described below, and is in addition to the other existing tax beneficial programs under the Investment Law.

The 2017 Amendment provides that a technology company satisfying certain conditions will qualify as a “Preferred Technology Enterprise” and will thereby enjoy a reduced corporate tax rate of 12% on income that qualifies as “Preferred Technology Income”, as defined in the Investment Law. The tax rate is further reduced to 7.5% for a Preferred Technology Enterprise located in development Zone A. In addition, a Preferred Technology Company will enjoy a reduced corporate tax rate of 12% on capital gain derived from the sale of certain “Benefitted Intangible Assets” (as defined in the Investment Law) to a related foreign company if the Benefitted Intangible Assets were acquired from a foreign company on or after January 1, 2017 for at least NIS 200 million, and the sale receives prior approval from the Israel Innovation Authority (previously known as the Israeli Office of the Chief Scientist), which we refer to as the IIA.

The 2017 Amendment further provides that a technology company satisfying certain conditions (group turnover of at least NIS 10 billion) will qualify as a “Special Preferred Technology Enterprise” and will thereby enjoy a reduced corporate tax rate of 6% on “Preferred Technology Income” regardless of the company’s geographic location within Israel. In addition, a Special Preferred Technology Enterprise will enjoy a reduced corporate tax rate of 6% on capital gain derived from the sale of certain “Benefitted Intangible Assets” to a related foreign company if the Benefitted Intangible Assets were either developed by the Special Preferred Enterprise or acquired from a foreign company on or after January 1, 2017, and the sale received prior approval from IIA. A Special Preferred Technology Enterprise that acquires Benefitted Intangible Assets from a foreign company for more than NIS 500 million will be eligible for these benefits for at least ten years, subject to certain approvals as specified in the Investment Law.

Dividends distributed to Israeli shareholders by a Preferred Technology Enterprise or a Special Preferred Technology Enterprise, paid out of Preferred Technology Income, are generally subject to withholding tax at source at the rate of 20% (in the case of non-Israeli shareholders - subject to the receipt in advance of a valid certificate from the ITA allowing for a reduced tax rate, 20% or such lower rate as may be provided in an applicable tax treaty). However, if such dividends are paid to an Israeli company, no tax is required to be withheld (although, if such dividends are subsequently distributed to individuals or a non-Israeli company, withholding tax at a rate of 20% or such lower rate as may be provided in an applicable tax treaty, will apply). If such dividends are distributed to a foreign company that holds solely or together with other foreign companies 90% or more in the Israeli company and other conditions are met, the withholding tax rate will be 4%.

As we have accumulated unused tax carry forward losses, we have not examined yet the full impact of the 2017 Amendment and the degree to which our facilities in Israel will qualify as a Preferred Technology Enterprise, the amount of Preferred Technology Income that we may have and other benefits that we may receive from the 2017 Amendment.

#### *Excess Tax*

Subject to the provisions of an applicable tax treaty, individuals who are subject to tax in Israel are also subject to an additional tax at the rate of 3% on the annual taxable income (including, but not limited to, dividends, interest and capital gain) exceeding NIS 651,600 in 2020 and NIS 647,640 in 2021.

#### *Estate and Gift Tax*

Israeli law presently does not impose estate or gift taxes.

#### ***U.S. Federal Income Tax Considerations***

The following discussion is a description of the material U.S. federal income tax considerations applicable to an investment in the ordinary shares by U.S. Holders who acquire our ordinary shares and hold them as capital assets for U.S. federal income tax purposes. As used in this section, the term “U.S. Holder” means a beneficial owner of an ordinary share who is:

- an individual citizen or resident of the United States;



- a corporation created or organized in or under the laws of the United States or of any state of the United States or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if the trust has elected validly to be treated as a United States person for U.S. federal income tax purposes or if a U.S. court is able to exercise primary supervision over the trust's administration and one or more United States persons have the authority to control all of the trust's substantial decisions.

The term "Non-U.S. Holder" means a beneficial owner of an ordinary share who is not a U.S. Holder. The tax consequences to a Non-U.S. Holder may differ substantially from the tax consequences to a U.S. Holder. Certain aspects of U.S. federal income tax relevant to a Non-U.S. Holder also are discussed below.

This description is based on provisions of the U.S. Internal Revenue Code of 1986, as amended, referred to in this discussion as the Code, existing and proposed U.S. Treasury regulations and administrative and judicial interpretations, each as available and in effect as of the date of this annual report. These sources may change, possibly with retroactive effect, and are open to differing interpretations. This description does not discuss all aspects of U.S. federal income taxation that may be applicable to investors in light of their particular circumstances or to investors who are subject to special treatment under U.S. federal income tax law, including:

- insurance companies;
- dealers in stocks, securities or currencies;
- financial institutions and financial services entities;
- real estate investment trusts;
- regulated investment companies;
- persons that receive ordinary shares as compensation for the performance of services;
- tax-exempt organizations;
- persons that hold ordinary shares as a position in a straddle or as part of a hedging, conversion or other integrated instrument;
- individual retirement and other tax-deferred accounts;
- expatriates of the United States;
- persons (other than Non-U.S. Holders) having a functional currency other than the U.S. dollar; and
- direct, indirect or constructive owners of 10% or more, by voting power or value, of us.

This discussion also does not consider the tax treatment of persons or partnerships that hold ordinary shares through a partnership or other pass-through entity or the possible application of United States federal gift or estate tax or alternative minimum tax.

We urge you to consult with your own tax advisor regarding the tax consequences of investing in the ordinary shares, including the effects of federal, state, local, foreign and other tax laws.

#### *Distributions Paid on the Ordinary Shares*

A U.S. Holder generally will be required to include in gross income as ordinary dividend income the amount of any distributions paid on the ordinary shares, including the amount of any Israeli taxes withheld, to the extent that those distributions are paid out of our current or accumulated earnings and profits as determined for U.S. federal income tax purposes. Distributions in excess of our earnings and profits will be applied against and will reduce the U.S. Holder's tax basis in its ordinary shares and, to the extent they exceed that tax basis, will be treated as gain from a sale or exchange of those ordinary shares. Our dividends will not qualify for the dividends-received deduction applicable in some cases to U.S. corporations. Dividends paid in NIS, including the amount of any Israeli taxes withheld, will be includible in the income of a U.S. Holder in a U.S. dollar amount calculated by reference to the exchange rate in effect on the date they are included in income by the U.S. Holder, regardless of whether the payment in fact is converted into USD. Any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend is includible in the income of the U.S. Holder to the date that payment is converted into USD generally will be treated as ordinary income or loss.

A non-corporate U.S. holder's "qualified dividend income" is subject to tax at reduced rates not exceeding 20% for tax years beginning 2012 (15% for 2011 and prior years). For this purpose, "qualified dividend income" generally includes dividends paid by a foreign corporation if either:

- (a) the stock of that corporation with respect to which the dividends are paid is readily tradable on an established securities market in the U.S., or
- (b) that corporation is eligible for benefits of a comprehensive income tax treaty with the U.S. which includes an information exchange program and is determined to be satisfactory by the U.S. Secretary of the Treasury. The Internal Revenue Service has determined that the U.S.-Israel Tax Treaty is satisfactory for this purpose.

In addition, under current law a U.S. Holder must generally hold his ordinary shares for more than 60 days during a 121 day period beginning 60 days prior to the ex-dividend date, and meet other holding period requirements for qualified dividend income.

Dividends paid by a foreign corporation will not qualify for the reduced rates, if such corporation is treated, for the tax year in which the dividend is paid or the preceding tax year, as a "passive foreign investment company" for U.S. federal income tax purposes. We do not believe that we will be classified as a "passive foreign investment company" for U.S. federal income tax purposes for our current taxable year.

Subject to the discussion below under "Information Reporting and Back-up Withholding," a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax on dividends received on ordinary shares unless that income is effectively connected with the conduct by that Non-U.S. Holder of a trade or business in the United States.

#### *Foreign Tax Credit*

Any dividend income resulting from distributions we pay to a U.S. Holder with respect to the ordinary shares generally will be treated as foreign source income for U.S. foreign tax credit purposes, which may be relevant in calculating such holder's foreign tax credit limitation. Subject to certain conditions and limitations, Israeli tax withheld on dividends may be deducted from taxable income or credited against a U.S. Holder's U.S. federal income tax liability. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For this purpose, dividends that we distribute generally should constitute "passive category income," or, in the case of certain U.S. Holders, "general category income." A foreign tax credit for foreign taxes imposed on distributions may be denied if the taxpayer does not satisfy certain minimum holding period requirements. The rules relating to the determination of foreign source income and the foreign tax credit are complex, and the availability of a foreign tax credit depends on numerous factors. Each prospective purchaser who would be a U.S. Holder should consult with its own tax advisor to determine whether its income with respect to the ordinary shares would be foreign source income and whether and to what extent that purchaser would be entitled to the credit.

## *Disposition of Ordinary Shares*

Upon the sale or other disposition of ordinary shares, a U.S. Holder generally will recognize capital gains or loss equal to the difference between the amount realized on the disposition and the holder's adjusted tax basis in the ordinary shares. U.S. Holders should consult their own advisors with respect to the tax consequences of the receipt of a currency other than USD upon such sale or other disposition.

In the event there is an Israeli income tax on gain from the disposition of ordinary shares, such tax should generally be the type of tax that is creditable for U.S. tax purposes; however, because it is likely that the source of any such gain would be a U.S. source, a U.S. foreign tax credit may not be available. U.S. shareholders should consult their own tax advisors regarding the ability to claim such credit.

Gain or loss upon the disposition of the ordinary shares will be treated as long-term if, at the time of the sale or disposition, the ordinary shares were held for more than one year. Long-term capital gains realized by non-corporate U.S. Holders are generally subject to a lower marginal U.S. federal income tax rate than ordinary income, other than qualified dividend income, as defined above. The deductibility of capital losses by a U.S. Holder is subject to limitations. In general, any gain or loss recognized by a U.S. Holder on the sale or other disposition of ordinary shares will be U.S. source income or loss for U.S. foreign tax credit purposes. U.S. Holders should consult their own tax advisors concerning the source of income for U.S. foreign tax credit purposes and the effect of the U.S.-Israel Tax Treaty on the source of income.

Subject to the discussion below under "Information Reporting and Back-up Withholding", a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax on any gain realized on the sale or exchange of ordinary shares unless:

- that gain is effectively connected with the conduct by the Non-U.S. Holder of a trade or business in the United States, or
- in the case of any gain realized by an individual Non-U.S. Holder, that holder is present in the United States for 183 days or more in the taxable year of the sale or exchange, and other conditions are met.

Holders generally will be subject to information reporting requirements with respect to dividends paid in the United States on ordinary shares. In addition, Holders will be subject to back-up withholding tax on dividends paid in the United States on ordinary shares unless the holder provides an IRS certification or otherwise establishes an exemption. Holders will be subject to information reporting and back-up withholding tax on proceeds paid within the United States from the disposition of ordinary shares unless the holder provides an IRS certification or otherwise establishes an exemption. Information reporting and back-up withholding may also apply to dividends and proceeds paid outside the United States that are paid by certain “U.S. payors” or “U.S. middlemen,” as defined in the applicable Treasury regulations, including:

- (1) a U.S. person;
- (2) the government of the U.S. or the government of any state or political subdivision of any state (or any agency or instrumentality of any of these governmental units);
- (3) a controlled foreign corporation;
- (4) a foreign partnership that is either engaged in a U.S. trade or business or whose United States partners in the aggregate hold more than 50% of the income or capital interests in the partnership;
- (5) a foreign person that derives 50% or more of its gross income for certain periods from the conduct of a trade or business in the U.S.; or
- (6) a U.S. branch of a foreign bank or insurance company.

The back-up withholding tax rate is 28%. Back-up withholding and information reporting will not apply to payments made to Non-U. S. Holders if they have provided the required certification that they are not United States persons.

In the case of payments by a payor or middleman to a foreign simple trust, foreign grantor trust or foreign partnership, other than payments to a holder that qualifies as a withholding foreign trust or a withholding foreign partnership within the meaning of the Treasury regulations and payments that are effectively connected with the conduct of a trade or business in the United States, the beneficiaries of the foreign simple trust, the person treated as the owner of the foreign grantor trust or the partners of the foreign partnership will be required to provide the certification discussed above in order to establish an exemption from backup withholding tax and information reporting requirements.

The amount of any back-up withholding may be allowed as a credit against a U.S. Holder’s U.S. federal income tax liability and may entitle the holder to a refund, provided that required information is furnished to the IRS.

**F. DIVIDENDS AND PAYING AGENTS**

Not applicable.

**G. STATEMENT BY EXPERTS**

Not applicable.

**H. 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. 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.

The SEC maintains an internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. Our filings with the SEC are available to the public through this web site at [www.sec.gov](http://www.sec.gov). Our filings with the SEC are also available to the public on the Israel Securities Authority's Magna website at [www.magna.isa.gov.il](http://www.magna.isa.gov.il), the Tel Aviv Stock Exchange website at <http://www.maya.tase.co.il>, and from commercial document retrieval services. We also generally make available on our own website ([www.towersemi.com](http://www.towersemi.com)) our quarterly and year-end financial statements as well as other information. We do not intend for any information contained on our website to be considered part of this annual report, and we have included our website address in this annual report solely as an inactive textual reference. We will post on our website any materials required to be posted on such website under applicable corporate or securities laws and regulations, including posting any XBRL interactive financial data required to be filed with the SEC, and any notices of general meetings of our shareholders.

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 this annual report or a 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**

### **Risk of Interest Rate Fluctuation**

Our cash equivalents, short-term deposits and investments in marketable securities are exposed to market risk due to fluctuation in interest rates on our cash deposits and/ or investments, 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/ securities. Due to the short maturities of our investments and available for sale securities, their carrying value approximates their fair value.

Our Series G Debentures issued in 2016 (with an outstanding principal of approximately NIS 334 million, or approximately \$104 million, as of December 31, 2020) bear annual fixed interest of 2.79%, the JP Loan (with an outstanding principal of approximately \$107 million as of December 31, 2020) bears annual fixed interest of 1.95%, and approximately \$96 million of our subsidiaries' equipment capital leases bear fixed interest at rates of 1.85% or 1.95% per annum. Therefore, we are not subject to cash flow exposure, financing expenses or interest rate fluctuations with respect to any of the Series G Debentures, JP Loan or capital leases.

However, in the event that market interest rates for similar debt decrease and are lower than the interest rate provided under our debentures, capital leases or loans, our actual financing costs would have been higher than they otherwise would have been had our debentures or loans provided for interest at a floating interest rate, which would have impacted our financing expense in an immaterial manner. Assuming a 10% change in market interest rate, the effective impact on our debentures' market value would be immaterial.

### **Foreign Exchange Risk**

We currently operate in three different regions: Japan, the United States and Israel. The functional currency of our entities in the United States and Israel is the USD. The functional currency of our subsidiary in Japan is the JPY. Our expenses and costs are denominated mainly in USD, JPY and NIS, revenues are denominated mainly in USD and JPY, and our cash from operations, investing and financing activities are denominated mainly in USD, JPY and NIS. Therefore, we are exposed to the risk of currency exchange rate fluctuations in Israel and Japan.

The USD cost of our operations in Israel is influenced by changes in the USD-to-NIS exchange rate, with respect to costs that are denominated in NIS. During the year ended December 31, 2020, the USD depreciated against the NIS by 7.0%, as compared to 7.8% depreciation during the year ended December 31, 2019.

The fluctuation of the USD against the NIS can affect our results of operations as it relates to our entity in Israel. Appreciation of the NIS has the effect of increasing the cost, in USD terms, of some of our purchases and labor costs that are denominated in NIS, which may lead to erosion in the profit margins. We use foreign currency cylinder transactions to hedge a portion of this currency exposure to be contained within a pre-defined, fixed range. In addition, we execute swap-hedging transactions to hedge the exposure to the fluctuation of USD against the NIS to the extent it relates to our non-convertible Series G Debentures, which are denominated in NIS.

The majority of TPSCo revenues are denominated in JPY and the majority of the expenses of TPSCo are in JPY, which limits the exposure to fluctuations of the USD / JPY exchange rate on TPSCo's results of operations. In order to mitigate a portion of the net exposure to the USD / JPY exchange rate, we engage in cylinder hedging transactions to contain the currency's fluctuation within a pre-defined, fixed range.

During the year ended December 31, 2020, the USD depreciated against the JPY by 5.0%, as compared to 1.2% depreciation during the year ended December 31, 2019. The net effect of USD depreciation against the JPY on TPSCo's assets and liabilities denominated in JPY is presented in the Cumulative Translation Adjustment ("CTA") as part of Other Comprehensive Income ("OCI") in the balance sheet.

Assuming a 10% appreciation of the NIS against the USD on December 31, 2020 (from 3.22 NIS/\$ to 2.92 NIS/\$), the effective impact on our quarterly Israeli expenses would be higher expenses by approximately \$4 million, which would partially be offset by the net impact of the hedging executed using the above-described cylinder transactions.

Assuming a 10% appreciation of the JPY against the USD on December 31, 2020 (from 103 JPY/\$ to 94 JPY/\$), the effective impact on our quarterly statement of operating results would be lower profitability (higher expenses, net of higher revenue) by approximately \$3 million, which would be partially offset by the net impact of the hedging using the above-described cylinder transactions and our natural hedging.

As of December 31, 2020, we are subject to currency exchange rate fluctuations of the JPY against the USD in connection with the following JPY-denominated debt financings: (i) approximately \$107 million of TPSCo's loans bearing a fixed interest rate of 1.95% per annum and (ii) approximately \$96 million of equipment capital lease agreements with an annual interest rate of 1.85% or 1.95%. However, as of December 31, 2020, we had approximately \$45 million of cash and cash equivalents and \$34 million of short-term deposits, held in JPY currency accounts and deposits, partially mitigating the above JPY debt exposure. Under the current terms of our JPY cash, cash equivalent and debt financing, we have determined that an assumed 10% appreciation of the JPY against the USD rate as of December 31, 2020 (from 103 JPY/\$ to 94 JPY/\$), would not have a material effect on our balance sheet as of December 31, 2020.

**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**

Not applicable.

**ITEM 15. CONTROLS AND PROCEDURES*****Evaluation of Disclosure Controls and Procedures***

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the “Act”) as of the end of the period covered by this annual report on Form 20-F. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that these disclosure controls and procedures were effective as of such date, at a reasonable level of assurance, in ensuring that the information required to be disclosed by our company in the reports we file or submit under the Act is (i) accumulated and communicated to our management (including the Chief Executive Officer and Chief Financial Officer) in a timely manner, and (ii) recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms.

***Internal Control over Financial Reporting***

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on our evaluation, management has concluded that our internal control over financial reporting was effective as of December 31, 2020.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

***Attestation Report of the Registered Public Accounting Firm***

The effectiveness of our internal control over financial reporting as of December 31, 2020 has been audited by Brightman Almagor Zohar & Co., a member firm of Deloitte Touche Tohmatsu, an independent registered public accounting firm, as stated in their report which appears herein.

***Changes in Internal Control over Financial Reporting***

There has been no change in our internal control over financial reporting during the period covered by this annual report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 16. [RESERVED]****ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT**

Our board of directors has determined that all four members of our audit committee, Mr. Ilan Flato, Mr. Yoav Chelouche, Mr. Avi Hasson and Ms. Iris Avner, are audit committee financial experts under applicable SEC rules and are independent as defined by NASDAQ Marketplace Rules.

**ITEM 16B. CODE OF ETHICS**

We adopted a code of ethics that applies to all directors, officers and employees of our Company and our subsidiaries, including our Chief Executive Officer, Chief Financial Officer, controller, and persons performing similar functions. We have posted our code of ethics on our website, [www.towersemi.com](http://www.towersemi.com) under "About Tower". The information contained on our website is not incorporated by reference in this annual report.

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The following table presents fees for professional services rendered by our independent registered public accounting firm for audit services, audit-related services and tax services:

	<u>2020</u>	<u>2019</u>
	<u>(US dollars in Thousands)</u>	
Audit Fees (1)	833	805
Audit Related Fees (2)	2	28
Tax Fees (3)	12	8
	<u>847</u>	<u>841</u>

- (1) Audit Fees consist of fees for professional services rendered for the audit of our financial statements and our subsidiaries financial statements, services rendered in connection with statutory and regulatory filings and engagements (including audit of our internal control over financial reporting) and reviews of our interim financial results submitted on Form 6-K.
- (2) Audit-related fees consist of assurance and related services by the auditors including, among others: due diligence services, accounting consultations and audits in connection with acquisitions, attest services related to financial reporting that are not required by statute or regulation and consultation concerning financial accounting, consent letters for our SEC filings and reporting standards and out of pocket expenses reimbursement.
- (3) Tax fees consist of fees for tax compliance services and tax returns services.

**ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES.**

Not applicable.

**ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS.**

Not applicable.

**ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT**

Not applicable.



## ITEM 16G. CORPORATE GOVERNANCE

As a foreign private issuer whose shares are listed on the NASDAQ Global Select Market, we are permitted to follow certain home country corporate governance practices instead of certain requirements of the Nasdaq Listing Rules. We have elected to follow the practices of our home country, rather than the Nasdaq Listing Rules, with respect to the following requirements:

- *Distribution of certain reports to shareholders.* As opposed to the Nasdaq Listing Rule 5250(d), which requires listed issuers to make annual reports available to shareholders in one of a number of specific manners, Israeli law does not require that we distribute annual reports, including our financial statements. As such, the generally accepted business practice in Israel is to distribute such reports to shareholders through a public regulated distribution website. In addition to making such reports available on a public regulated distribution website, we plan to make our audited financial statements available to our shareholders at our offices and will only mail such reports to shareholders upon request.
- *Independent director meetings.* Our Board has not adopted a policy of conducting regularly scheduled meetings at which only our independent directors are present, as permitted by Israeli law. We do not follow the requirements of Nasdaq Listing Rule 5605(b)(2).
- *Compensation of officers.* We follow Israeli law and practice with respect to the approval of compensation for our chief executive officer and other executive officers. While our compensation committee currently complies with the provisions of the Nasdaq Listing Rules relating to composition requirements and Israeli law generally requires that the compensation of the chief executive officer and all other executive officers be approved, or recommended to the board for approval, by the compensation committee (with respect to the compensation of the chief executive officer and in certain other instances, shareholder approval is also required), Israeli law may differ from the provisions provided for in the Nasdaq Listing Rule 5605(d) (see Exhibit 2.1 to this Annual Report, "Description of Securities").
- *Director nomination process.* While our corporate governance and nominating committee currently complies with the provisions of the Nasdaq Listing Rules relating to composition requirements, the process under which director nominees are selected, or recommended for the Board of Directors selection, may not be in full compliance with the applicable Nasdaq Listing Rule 5605(e). Furthermore, although we have adopted a formal written corporate governance and nominating committee charter, there is no requirement under the Companies Law to do so and the charter as adopted may not be in full compliance with the requirements under Nasdaq Listing Rule 5605(e)(2).
- *Audit Committee Charter.* Although we have adopted a formal written audit committee charter, there is no requirement under the Companies Law to do so and the charter as adopted may not specify all the items enumerated in the Nasdaq Listing Rule 5605(c)(1).
- *Compensation Committee Charter.* Although we have adopted a formal written compensation committee charter, there is no requirement under the Companies Law to do so and the charter as adopted may not specify all the items enumerated in the Nasdaq Listing Rule 5605(d)(1).
- *Quorum requirements.* Under our articles of association and as permitted under the Companies Law, a quorum for any meeting of shareholders shall be the presence of at least two shareholders holding a combined 33% of our outstanding ordinary shares, instead of 33 1/3% of the issued share capital required under Nasdaq Listing Rule 5620(c). If the meeting was adjourned for lack of a quorum, if a quorum is not present at the adjourned meeting within half an hour of the time fixed for the commencement of the adjourned meeting, the shareholders present, in person or by proxy, shall constitute a quorum.
- *Related Party Transactions.* We review and approve all related party transactions in accordance with the requirements and procedures for approval of related party acts and transactions set forth in Sections 268 to 275 the Companies Law, which may not fully reflect the requirements of the Nasdaq Listing Rule 5630.

- *Shareholder Approval.* We seek shareholder approval for all corporate actions requiring such approval under the requirements of the Companies Law, rather than seeking approval for corporate actions in accordance with Nasdaq Listing Rule 5635. Under the Companies Law, shareholder approval is required (subject to certain limited exceptions) for, among other things: (a) transactions with directors concerning the terms of their service (including indemnification, exemption, and insurance for their service or for any other position that they may hold at a company), for which approvals of the compensation committee, board of directors, and shareholders are all required (subject to exceptions) (see Exhibit 2.1 to this Annual Report, “Description of Securities”); (b) extraordinary transactions with controlling shareholders of publicly held companies; (c) terms of office and employment or other engagement of a controlling shareholder, if any, or such controlling shareholder’s relative; (d) approval of transactions with the chief executive officer with respect to his or her compensation, or transactions with officers not in accordance with the approved compensation policy (see Exhibit 2.1 to this Annual Report, “Description of Securities”); and (e) approval of the compensation policy for office holders (within the meaning of the Companies Law) (see “Item 6 Directors, Senior Management and Employees–B. Compensation”). In addition, under the Companies Law, a merger requires approval of the shareholders of each of the merging companies.

We do not necessarily seek shareholder approval for the establishment of, and amendments to, stock option or equity compensation plans (as set forth in Nasdaq Listing Rule 5635(c)), as such matters are not subject to shareholder approval under Israeli law. We will attempt to seek shareholder approval for our stock option or equity compensation plans (and the relevant annexes thereto) to the extent required in order to ensure they are tax qualified for our employees in the United States. However, even if such approval is not received, then the stock option or equity compensation plans will continue to be in effect, but we will be unable to grant options to our U.S. employees that qualify as Incentive Stock Options for U.S. federal tax purpose. Our stock option or other equity compensation plans are also available to our non-U.S. employees, and provide features necessary to comply with applicable non-U.S. tax laws.

Except as stated above, we currently intend to comply with the rules generally applicable to U.S. domestic companies listed on Nasdaq. We may in the future decide to use the foreign private issuer exemption with respect to some or all of the other Nasdaq Listing Rules. Following our home country governance practices, as opposed to the requirements that would otherwise apply to a company listed on Nasdaq, may provide less protection than is accorded to investors under the Nasdaq Listing Rules applicable to domestic issuers. For more information, see “Item 3. “Key Information – D. Risk Factors-Risks Related to the Company – *“We are a foreign private issuer and, as a result, the public reporting and disclosure rules to which we are subject, and the corporate governance practices that we are permitted to follow, may provide less protection to our investors than is accorded to investors under rules applicable to domestic U.S. issuers”.*

**ITEM 16H. MINE SAFETY DISCLOSURE**

Not applicable.

**PART III**

**ITEM 17. FINANCIAL STATEMENTS**

Not applicable.

## ITEM 18. FINANCIAL STATEMENTS

Our consolidated financial statements and related auditors' report for the year ended December 31, 2020 are included in this annual report beginning on page F-1.

## ITEM 19. EXHIBITS

1.1 Articles of Association of the Company, approved by shareholders on November 14, 2000, as amended (incorporated by reference to Exhibit 3.1 of the Company's Registration Statement on Form F-1, File No. 333-126909).

[1.2 Amendment to Articles of Association of the Company \(approved by shareholders on December 7, 2003\) \(incorporated by reference to Exhibit 4.2 to the Registration Statement on Form S-8, File No. 333-117565\).](#)

[1.3 Amendment to the Articles of Association of the Company \(approved by shareholders on September 28, 2006\) \(incorporated by reference to Exhibit 4.2 of the Company's Registration Statement on Form S-8, File No. 333-138837\).](#)

[1.4 Amendment to Articles of Association of Company \(approved by shareholders on September 24, 2008\) \(incorporated by reference to Exhibit 3.4 of the Company's Registration Statement on Form S-8, File No. 333-153710\).](#)

[1.5 Amendment to Articles of Association of Company \(approved by shareholders on August 11, 2011\) \(incorporated by reference to Exhibit 99.1 of the Form 6-K furnished to the SEC on January 17, 2012\).](#)

[1.6 Amendment to Articles of Association of Company \(approved by shareholders on August 2, 2012\) \(incorporated by reference to proposals 1 and 2 of the proxy statement filed on Form 6-K furnished to the SEC on June 12, 2012, and the Form 6-K furnished to the Securities and Exchange Commission on August 2, 2012\)](#)

[1.7 Amendment to Articles of Association of Company \(approved by shareholders on May 23, 2013\) \(incorporated by reference to Proposal 5 of the proxy statement furnished on Form 6-K to the Securities and Exchange Commission on April 16, 2013\).](#)

[#2.1 Description of Securities Registered Under Section 12](#)

[4.1 2013 Share Incentive Plan \(incorporated by reference to Exhibit 4.54 to the Company's Annual Report on Form 20-F filed with the Securities and Exchange Commission on May 14, 2015\).](#)

[4.2 Compensation Policy for Executive Officers and Directors of the Company \(incorporated by reference to Exhibit A to Exhibit 99.1 to the Form 6-K furnished to the Securities and Exchange Commission on August 3, 2020\).](#)

[#8.1 List of Subsidiaries.](#)

[#12.1 Certification by Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.](#)

[#12.2 Certification by Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.](#)

[#13.1 Certification by Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.](#)

[#13.2 Certification by Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.](#)

[#15.1 Consent of Brightman Almagor Zohar & Co., Certified Public Accountants, a member of Deloitte Touche Tohmatsu.](#)

#101 The following financial information from Tower Semiconductor Ltd.'s Annual Report on Form 20-F for the year ended December 31, 2020, formatted in XBRL (eXtensible Business Reporting Language):

- (i) Consolidated Balance Sheets as of December 31, 2020 and 2019;
- (ii) Consolidated Statements of Operations for the years ended December 31, 2020, 2019 and 2018;
- (iii) Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2020, 2019 and 2018;
- (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2020, 2019 and 2018; and
- (v) Notes to Consolidated Financial Statements, tagged as blocks of text.

Users of this data are advised, in accordance with Rule 406T of Regulation S-T promulgated by the SEC, that this Interactive Data File is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of Section 18 of the Exchange Act, and otherwise the Company is not subject to liability under these sections.

#Filed herewith

**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

**TOWER SEMICONDUCTOR LTD.**

By: /s/ Russell C. Ellwanger

Russell C. Ellwanger  
Chief Executive Officer

April 30, 2021

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES

INDEX TO UNAUDITED CONDENSED INTERIM  
CONSOLIDATED FINANCIAL STATEMENTS  
AS OF JUNE 30, 2020

	<u>Page</u>
<a href="#"><u>REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM</u></a>	F-2 - F-5
<a href="#"><u>BALANCE SHEETS</u></a>	F-6
<a href="#"><u>STATEMENTS OF OPERATIONS</u></a>	F-7
<a href="#"><u>STATEMENTS OF COMPREHENSIVE INCOME</u></a>	F-8
<a href="#"><u>STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY</u></a>	F-9
<a href="#"><u>STATEMENTS OF CASH FLOWS</u></a>	F-11 - F-12
<a href="#"><u>NOTES TO FINANCIAL STATEMENTS</u></a>	F-13 - F-53

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the shareholders and the Board of Directors of Tower Semiconductor Ltd.

**Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Tower Semiconductor Ltd. and subsidiaries (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income, shareholders' equity and cash flows, for each of the three years in the period ended December 31, 2020, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 3, 2021, expressed an unqualified opinion on the Company's internal control over financial reporting.

**Basis for Opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

**Critical Audit Matter**

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

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**Critical Audit Matter Description**

The Company's provision for income taxes is affected by income taxes in a multinational tax environment. The income tax provision is an estimate determined based on current enacted tax laws and tax rates at each of its geographic locations with the use of acceptable allocation methodologies based upon the Company's organizational structure, the Company's operations and business mode of work, and result in applicable local taxable income attributable to those locations. For the year-ended December 31, 2020, the consolidated provision for income taxes was \$5.4 million comprised of amounts related to Israel, Japan and U.S. operations, as detailed in Note 19.

We identified management's determination of the taxable income and its related income tax provision as a critical audit matter because of the significant judgements and estimates management makes related to the charges between the sites located in different tax jurisdictions, the consideration of different tax status in each jurisdiction. This required a high degree of auditor judgement and an increased extent of effort, including the need to involve our income tax specialists, when performing audit procedures to evaluate the reasonableness of management's estimate of the income tax provision.

**How the Critical Audit Matter was addressed in the Audit**

Our audit procedures related to the determination of the taxable income allocation and income tax provision included the following, among others:

- We obtained the taxable income allocation used in calculating the income tax provision and tested that the taxable income allocation between Israel and corporate operations and the other subsidiaries is appropriate based on the specified services and margins determined in the Company's transfer pricing studies
- We tested the effectiveness of controls over the Company's process to allocate its taxable income between the different subsidiaries based on the Company's transfer pricing studies.
- We read and evaluated management's documentation, including information obtained by management from outside tax specialists that detailed the basis of the uncertain tax positions.
- With the assistance of our income tax specialists we evaluated:
  - The appropriateness of the ranges of outcomes utilized and the pricing conclusions reached within the transfer pricing studies conducted by the Company's outside tax specialists.
  - The transfer pricing methodology utilized by management with alternative methodologies and industry benchmarks.
  - The relevant facts by reading the Company's correspondence with the relevant tax authorities and any third-party advice obtained by the Company.
  - The Company's measurement of uncertain tax positions related to transfer pricing based on our knowledge of international and local income tax laws, as well as historical settlement activity from income tax authorities



**Brightman Almagor Zohar & Co.**  
**Certified Public Accountants**  
**A Firm in The Deloitte Global Network**

Tel Aviv, Israel  
March 3, 2021

We have served as the Company's auditor since 1993.

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the shareholders and the Board of Directors of Tower Semiconductor Ltd.

**Opinion on Internal Control over Financial Reporting**

We have audited the internal control over financial reporting of Tower Semiconductor Ltd. and subsidiaries (the "Company") as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2020, of the Company and our report dated March 3, 2021, expressed an unqualified opinion on those consolidated financial statements.

**Basis for Opinion**

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financing Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

**Definition and Limitations of Internal Control over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the consolidated financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the consolidated financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the consolidated financial statements.

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Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

*Brightman Almagor Zohar & Co.*

**Brightman Almagor Zohar & Co.**  
**Certified Public Accountants**  
**A Firm in The Deloitte Global Network**

Tel Aviv, Israel  
March 3, 2021

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
(dollars and shares in thousands)

	As of December 31, 2020	As of December 31, 2019
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 211,683	\$ 355,561
Short-term interest-bearing deposits	310,230	215,609
Marketable securities (*)	188,967	176,070
Trade accounts receivables	162,100	126,966
Inventories	199,126	192,256
Other current assets	30,810	22,019
<b>Total current assets</b>	<b>1,102,916</b>	<b>1,088,481</b>
<b>LONG-TERM INVESTMENTS</b>	<b>40,699</b>	<b>40,085</b>
<b>PROPERTY AND EQUIPMENT, NET</b>	<b>839,171</b>	<b>681,939</b>
<b>INTANGIBLE ASSETS, NET</b>	<b>10,962</b>	<b>10,281</b>
<b>GOODWILL</b>	<b>7,000</b>	<b>7,000</b>
<b>DEFERRED TAX AND OTHER LONG-TERM ASSETS, NET</b>	<b>93,401</b>	<b>105,047</b>
<b>TOTAL ASSETS</b>	<b>\$ 2,094,149</b>	<b>\$ 1,932,833</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES</b>		
Current maturities of long-term debt	\$ 106,513	\$ 65,932
Trade accounts payables	96,940	119,199
Deferred revenue and customers' advances	10,027	10,322
Employee related liabilities	51,527	50,302
Other current liabilities	7,905	7,301
<b>Total current liabilities</b>	<b>272,912</b>	<b>253,056</b>
<b>LONG-TERM DEBT</b>	<b>283,765</b>	<b>245,821</b>
<b>LONG-TERM CUSTOMERS' ADVANCES</b>	<b>25,451</b>	<b>28,196</b>
<b>EMPLOYEE RELATED LIABILITIES</b>	<b>15,833</b>	<b>13,285</b>
<b>DEFERRED TAX AND OTHER LONG-TERM LIABILITIES</b>	<b>41,286</b>	<b>45,752</b>
<b>TOTAL LIABILITIES</b>	<b>639,247</b>	<b>586,110</b>
Ordinary shares of NIS 15 par value:	430,996	426,111
150,000 authorized as of December 31, 2020 and 2019		
108,010 and 107,923 issued and outstanding, respectively, as of December 31, 2020		
106,895 and 106,808 issued and outstanding, respectively, as of December 31, 2019		
Additional paid-in capital	1,393,095	1,395,376
Cumulative stock based compensation	124,762	107,774
Accumulated other comprehensive loss	(16,509)	(18,244)
Accumulated deficit	(465,460)	(547,398)
Treasury stock, at cost - 87 shares	(9,072)	(9,072)
<b>THE COMPANY'S SHAREHOLDERS' EQUITY</b>	<b>1,457,812</b>	<b>1,354,547</b>
<b>Non-controlling interest</b>	<b>(2,910)</b>	<b>(7,824)</b>
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>1,454,902</b>	<b>1,346,723</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>\$ 2,094,149</b>	<b>\$ 1,932,833</b>

(\*) Marketable securities are available-for-sale securities and included amortized cost of \$187,719 and \$173,817 as of December 31, 2020 and 2019, respectively. The balance as of December 31, 2020 included an allowance for credit losses of \$57.

See notes to consolidated financial statements.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(dollars and shares in thousands, except per share data)

	Year ended December 31,		
	2020	2019	2018
<b>REVENUES</b>	\$ 1,265,684	\$ 1,234,003	\$ 1,304,034
<b>COST OF REVENUES</b>	<u>1,032,366</u>	<u>1,004,332</u>	<u>1,011,087</u>
<b>GROSS PROFIT</b>	<u>233,318</u>	<u>229,671</u>	<u>292,947</u>
<b>OPERATING COSTS AND EXPENSES:</b>			
Research and development	78,320	75,579	73,053
Marketing, general and administrative	<u>63,965</u>	<u>67,376</u>	<u>64,951</u>
	<u>142,285</u>	<u>142,955</u>	<u>138,004</u>
<b>OPERATING PROFIT</b>	91,033	86,716	154,943
<b>FINANCING INCOME (EXPENSE), NET</b>	2,870	12	(13,184)
<b>OTHER INCOME (EXPENSE), NET</b>	<u>(5,215)</u>	<u>4,293</u>	<u>(2,442)</u>
<b>PROFIT BEFORE INCOME TAX</b>	88,688	91,021	139,317
<b>INCOME TAX EXPENSE, NET</b>	<u>(5,399)</u>	<u>(2,948)</u>	<u>(5,938)</u>
<b>NET PROFIT</b>	83,289	88,073	133,379
Net loss (income) attributable to non-controlling interest	<u>(987)</u>	<u>1,975</u>	<u>2,200</u>
<b>NET PROFIT ATTRIBUTABLE TO THE COMPANY</b>	<u>\$ 82,302</u>	<u>\$ 90,048</u>	<u>\$ 135,579</u>
<b>BASIC EARNINGS PER ORDINARY SHARE:</b>			
Earnings per share	<u>\$ 0.77</u>	<u>\$ 0.85</u>	<u>\$ 1.35</u>
Weighted average number of ordinary shares outstanding	<u>107,254</u>	<u>106,256</u>	<u>100,399</u>
<b>DILUTED EARNINGS PER ORDINARY SHARE:</b>			
Earnings per share	<u>\$ 0.76</u>	<u>\$ 0.84</u>	<u>\$ 1.32</u>
Net profit used for diluted earnings per share	<u>\$ 82,302</u>	<u>\$ 90,048</u>	<u>\$ 135,579</u>
Weighted average number of ordinary shares outstanding used for diluted earnings per share	<u>108,480</u>	<u>107,438</u>	<u>102,517</u>

See notes to consolidated financial statements.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
(dollars in thousands)

	Year ended December 31,		
	2020	2019	2018
<b>Net profit</b>	\$ 83,289	\$ 88,073	\$ 133,379
<b>Other comprehensive income, net of tax:</b>			
Foreign currency translation adjustment	7,830	3,478	3,599
Change in employees plan assets and benefit obligations, net of taxes	(394)	(1,118)	269
Unrealized gain (loss) on derivatives	<u>(1,774)</u>	<u>3,696</u>	<u>(2,704)</u>
<b>Comprehensive income</b>	<b>88,951</b>	<b>94,129</b>	<b>134,543</b>
Comprehensive loss (income) attributable to non-controlling interest	<u>(4,914)</u>	<u>1,063</u>	<u>407</u>
<b>Comprehensive income attributable to the Company</b>	<b>\$ 84,037</b>	<b>\$ 95,192</b>	<b>\$ 134,950</b>

See notes to consolidated financial statements.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY**  
(dollars and share data in thousands)

<b>THE COMPANY'S SHAREHOLDERS' EQUITY</b>												
	Ordinary shares issued	Ordinary shares amount	Additional paid-in capital	Capital notes	Unearned compensation	Accumulated other comprehensive income (loss)	Foreign currency translation adjustment	Accumulated deficit	Treasury stock	Comprehensive income	Non controlling interest	Total
<b>BALANCE AS OF JANUARY 1, 2018</b>	98,544	\$391,727	\$1,347,866	\$ 20,758	\$ 80,565	\$ 1,763	\$ (24,522)	\$ (773,025)	\$(9,072)		\$ (6,354)	\$1,029,706
<b>Changes during the period:</b>												
Conversion of notes into share capital	5,790	23,722	34,864									58,586
Exercise of options and RSUs	732	3,043	(2,334)									709
Capital notes converted into share capital												--
Employee stock-based compensation					12,661							12,661
Other comprehensive income:												
Profit								135,579		\$ 135,579	(2,200)	133,379
Foreign currency translation adjustments							1,806			1,806	1,793	3,599
Change in employees plan assets and benefit obligations						269				269		269
Unrealized loss on derivatives						(2,704)				(2,704)		(2,704)
Comprehensive income										<u>\$ 134,950</u>		
<b>BALANCE AS OF DECEMBER 31, 2018</b>	105,066	\$418,492	\$1,380,396	\$ 20,758	\$ 93,226	\$ (672)	\$ (22,716)	\$ (637,446)	\$(9,072)		\$ (6,761)	\$1,236,205
<b>Changes during the period:</b>												
Exercise of options and RSUs	648	2,727	(886)									1,841
Capital notes converted into share capital	1,181	4,892	15,866	(20,758)								--
Employee stock-based compensation					14,548							14,548
Other comprehensive income:												
Profit								90,048		\$ 90,048	(1,975)	88,073
Foreign currency translation adjustments							2,566			2,566	912	3,478
Change in employees plan assets and benefit obligations						(1,118)				(1,118)		(1,118)
Unrealized gain on derivatives						3,696				3,696		3,696
Comprehensive income										<u>\$ 95,192</u>		

**THE COMPANY'S SHAREHOLDERS' EQUITY**

	Ordinary shares issued	Ordinary shares amount	Additional paid-in capital	Capital notes	Unearned compensation	Accumulated other comprehensive income (loss)	Foreign currency translation adjustment	Accumulated deficit	Treasury stock	Comprehensive income	Non controlling interest	Total
<b>BALANCE AS OF DECEMBER 31, 2019</b>	106,895	\$ 426,111	\$1,395,376	\$ --	\$ 107,774	\$ 1,906	\$ (20,150)	\$ (547,398)	\$ (9,072)		\$ (7,824)	\$1,346,723
<b>Changes during the period:</b>												
Exercise of options and RSUs	1,115	4,885	(2,281)									2,604
Employee stock- based compensation					16,988							16,988
Cumulative effect upon adoption of ASC 326 - see note 2X								(364)				(364)
<b>Other comprehensive income:</b>												
Profit								82,302		\$ 82,302	987	83,289
Foreign currency translation adjustments							3,903			3,903	3,927	7,830
Change in employees plan assets and benefit obligations					(394)					(394)		(394)
Unrealized loss on derivatives					(1,774)					(1,774)		(1,774)
<b>Comprehensive income</b>										<u>\$ 84,037</u>		

BALANCE AS  
OF  
DECEMBER  
31, 2020

108,010 \$ 430,996 \$ 1,393,095 \$ -- \$ 124,762 \$ (262) \$ (16,247) \$ (465,460) \$ (9,072) \$ (2,910) \$ 1,454,902

OUTSTANDING  
SHARES, NET OF  
TREASURY STOCK  
AS OF DECEMBER  
31, 2020

107,923

See notes to consolidated financial statements.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(dollars in thousands)

CASH FLOWS - OPERATING ACTIVITIES	Year ended December 31,		
	2020	2019	2018
Net profit	\$ 83,289	\$ 88,073	\$ 133,379
<b>Adjustments to reconcile net profit for the period to net cash provided by operating activities:</b>			
<b>Income and expense items not involving cash flows:</b>			
Depreciation and amortization	240,531	214,474	214,391
Effect of exchange rate differences on debentures	6,645	10,294	(9,791)
Other expense (income), net	5,215	(4,293)	2,442
<b>Changes in assets and liabilities:</b>			
Trade accounts receivable	(33,087)	27,317	(3,096)
Other current assets	(7,999)	(4,600)	11,260
Inventories	(2,891)	(21,021)	(26,344)
Trade accounts payable	(18,576)	(339)	(3,562)
Deferred revenue and customers' advances	(3,072)	(10,331)	2,625
Employee related liabilities and other current liabilities	347	(9,435)	(867)
Long-term employee related liabilities	3,936	(310)	(795)
Deferred tax, net and other long-term liabilities	2,223	1,491	(6,745)
Net cash provided by operating activities	<u>276,561</u>	<u>291,320</u>	<u>312,897</u>
<b>CASH FLOWS - INVESTING ACTIVITIES</b>			
Investments in property and equipment	(313,656)	(191,396)	(210,192)
Proceeds related to sale and disposal of property and equipment	57,117	19,230	40,451
Investments in other assets	(1,450)	(413)	(14,536)
Deposits and marketable securities, net	(105,620)	(132,515)	(143,940)
Net cash used in investing activities	<u>(363,609)</u>	<u>(305,094)</u>	<u>(328,217)</u>
<b>CASH FLOWS - FINANCING ACTIVITIES</b>			
Exercise of options, net	2,512	1,842	714
Proceeds from loans	--	--	98,990
Loans repayment	--	--	(142,285)
Principal payments on account of capital lease obligation	(25,364)	(19,402)	(5,554)
Debentures repayment	(38,335)	--	--
Net cash used in financing activities	<u>(61,187)</u>	<u>(17,560)</u>	<u>(48,135)</u>
EFFECT OF FOREIGN CURRENCY EXCHANGE RATE CHANGE	<u>4,357</u>	<u>1,804</u>	<u>2,585</u>
DECREASE IN CASH AND CASH EQUIVALENTS	(143,878)	(29,530)	(60,870)
CASH AND CASH EQUIVALENTS - BEGINNING OF PERIOD	<u>355,561</u>	<u>385,091</u>	<u>445,961</u>
CASH AND CASH EQUIVALENTS - END OF PERIOD	<u>\$ 211,683</u>	<u>\$ 355,561</u>	<u>\$ 385,091</u>



**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(dollars in thousands)

	Year ended December 31,		
	2020	2019	2018
<b>NON-CASH ACTIVITIES:</b>			
Investments in property and equipment	\$ 35,271	\$ 39,184	\$ 28,052
Conversion of notes into share capital	\$ --	\$ 22,600	\$ 58,586
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:</b>			
Cash received during the period from interest	\$ 10,524	\$ 14,436	\$ 8,818
Cash paid during the period for interest	\$ 6,633	\$ 7,456	\$ 11,835
Cash paid for (received from) income taxes, net during the period	\$ (2,436)	\$ 13,026	\$ 5,768

See notes to consolidated financial statements.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**

(dollars in thousands, except per share data)

**NOTE 1 - DESCRIPTION OF BUSINESS AND GENERAL**

The consolidated financial statements of Tower Semiconductor Ltd. (“Tower”) include the financial statements of Tower, and (i) its wholly-owned subsidiary Tower US Holdings Inc., the sole owner of: (1) Tower Semiconductor NPB Holdings, Inc. (formerly named “Jazz US Holdings, Inc.”) and its wholly-owned subsidiary, Tower Semiconductor Newport Beach, Inc. (formerly named “Jazz Semiconductor, Inc.”), an independent semiconductor foundry focused on specialty process technologies for the manufacture of analog intensive mixed-signal semiconductor devices (Tower Semiconductor NPB Holdings, Inc. and Tower Semiconductor Newport Beach, Inc. collectively referred to herein as “TSNP”); and (2) Tower Semiconductor San Antonio, Inc. (formerly named “TowerJazz Texas, Inc.”) (“TSSA”); and (ii) its 51% owned subsidiary, Tower Partners Semiconductor Co., Ltd. (formerly named “TowerJazz Panasonic Semiconductor Co. Ltd.”) (“TPSCo”), an independent semiconductor foundry which includes three semiconductor manufacturing facilities located in Tonami, Uozu and Arai, in Hokuriku Japan. The other 49% of TPSCo’s shares are held by Nuvoton Technology Corporation Japan (“NTCJ”), formerly named “Panasonic Semiconductor Systems Co., Ltd.” (“PSCS”). PSCS’ name changed to NTCJ following the purchase of PSCS by Nuvoton Technology Corporation (“Nuvoton”) from Panasonic Corporation in September 2020. Tower and its subsidiaries are collectively referred to as the “Company”.

The Company is a global specialty foundry leader manufacturing integrated circuits, offering a broad range of customizable process technologies including: SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, integrated power management and MEMS. The Company also provides a world-class design enablement platform for a quick and accurate design cycle, as well as Transfer Optimization and development Process Services (“TOPS”) to integrated device manufacturers (“IDMs”) and fabless companies that require capacity. To provide multi-fab sourcing and expanded capacity for its customers, the Company operates two manufacturing facilities in Israel (150mm and 200mm), two in the U.S. (200mm) and three in Japan through TPSCo (two 200mm and one 300mm), which provide 45nm CMOS, 65nm RF CMOS and 65nm advanced image sensor technologies.

Tower’s ordinary shares are traded on the NASDAQ Global Select Market and on the Tel-Aviv Stock Exchange (“TASE”) under the symbol TSEM.

In March 2020, the World Health Organization declared the novel coronavirus (“COVID-19”) a global pandemic. Since then, several measures have been implemented worldwide in response to the increased impact from COVID-19. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused disruption to certain business sectors globally, resulting in economic and other difficulties in many regions worldwide. The COVID-19 pandemic did not have a material adverse effect on the Company’s financial position and on its financial stability.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**A. Basis of presentation**

The Company's consolidated financial statements are presented in accordance with U.S. generally accepted accounting principles ("US GAAP").

**B. Use of Estimates in Preparation of Financial Statements**

The preparation of financial statements in conformity with GAAP requires the Company to make estimates and assumptions that affect the reported amounts of assets and liabilities, affect the disclosure of contingent assets and liabilities as of the date of the financial statements, and affect the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

**C. Principles of Consolidation**

The Company's consolidated financial statements include the financial statements of Tower and its subsidiaries. The Company's consolidated financial statements are presented after elimination of inter-company transactions and balances.

**D. Cash and Cash Equivalents**

Cash and cash equivalents consist of cash, bank deposits, money market funds and short-term investments with insignificant interest rate risk and original maturities of three months or less.

**E. Short-Term Interest-Bearing Deposits**

Short-term deposits include bank deposits with original maturities greater than three months and with remaining maturities of less than one year. Such deposits are presented at cost, including accrued interest, which approximates their fair value.

**F. Marketable securities**

The Company accounts for its investments in investment grade debt securities in accordance with ASC 320 "*Investments - Debt and Equity Securities*". Management determines the appropriate classification of its investments in debt securities at the time of purchase and re-evaluates such determinations at each balance sheet date.

Marketable securities are classified as "available-for-sale", and are measured at fair value, based on quoted market prices. Unrealized gains and losses are reported in a separate component of shareholders' equity in accumulated other comprehensive income ("OCI"). Gains and losses are recognized when realized, on a specific identification basis, in the Company's consolidated statements of income.

Following the adoption of ASC 326 in January 2020, current expected credit losses on the Company's marketable grade debt securities are recorded, if expected, through an allowance for current expected credit losses and recognized in "other income (expense), net" on the consolidated statements of operations. The amount of allowance for current expected credit losses is limited to the amount that the fair value is less than the amortized cost basis. Any remaining unrealized losses are included in accumulated other comprehensive loss in shareholders' equity. See also X below.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**F. Marketable securities (Cont.)**

If the Company intends to sell the debt security (that is, it has decided to sell the security), or more likely than not will be required to sell the security before recovery of its amortized cost basis, any allowance for current expected credit losses is written off and the amortized cost basis shall be written down to the debt security's fair value at the reporting date with any incremental impairment reported in earnings. The Company concluded that the current expected credit losses on its available for sale investment portfolio were immaterial.

**G. Trade Accounts Receivables - Allowance for Expected Credit Loss**

The Company maintains an allowance based on specific analysis of each customer account receivable's aging, assessment of its related risk and ability of the customer to make the required payment. In addition, following the adoption of ASC 326 in January 2020 (see X below), an allowance is maintained for estimated forward-looking losses resulting from possible inability of customers to make required payments (current expected losses). The amount of the allowance is determined principally on the basis of past collection experience and known financial factors regarding specific customers. Trade accounts receivables are written off against the allowance when it becomes evident that collection will not occur. Credit is extended to customers satisfying pre-defined credit criteria.

As of December 31, 2020, the Company's total allowance for expected credit loss was \$1,065, of which \$385 has been recorded following the adoption of ASC 326 effective from January 1, 2020, with \$358 recognized as an adoption adjustment to retained earnings. As of December 31, 2019, the allowance was \$10,925, see Note 14F for more details.

**H. Trade Accounts Receivables - Factoring**

From time to time, the Company uses non-recourse factoring arrangements, to sell accounts receivable to third-party financial institutions. The sale of the receivables in these arrangements are accounted for as a true sale, under ASC 860. Total accounts receivables factoring was \$0 and \$12,989 as of December 31, 2020 and 2019 respectively.

**I. Inventories**

Inventories are stated at the lower of aggregate cost or net realizable value. If inventory costs exceed expected net realizable value, the Company records reserves for the difference between the cost and the expected net realizable value. Cost of raw materials is determined mainly on the basis of the weighted average moving price per unit. Work in progress is measured at production costs including acquisition costs, processing costs and other costs incurred in bringing the inventories to their present location in the production line and condition.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**J. Investments in Privately-Held Companies**

Long-term investments include equity investments in privately-held companies without readily determinable fair values. In accordance with ASC 321 - "*Investments - Equity Securities*", the Company may elect between fair value and measurement alternative of cost, less impairments, and further adjust up or down, based on observable price changes in orderly transactions for identical or similar investments of the same issuer ("Measurement Alternative"). The Company elected to use the measurement alternative for each of its investments. Any adjustments resulting from impairments and/or observable price changes are recorded under "other income (expense), net" in the consolidated statements of operations.

**K. Property and Equipment**

The Company accounts for property and equipment in accordance with Accounting Standards Codification ASC 360 "*Accounting for the Property, Plant and Equipment*". Property and equipment are presented at cost, including capitalizable costs. Capitalizable costs include only costs that are identifiable with, and related to, the property and equipment, and are incurred prior to their initial operation. Identifiable incremental direct costs include costs associated with constructing, establishing and installing property and equipment.

Maintenance and repairs are charged to expenses as incurred.

Property and equipment are presented net of investment grants received and less accumulated depreciation.

Depreciation is calculated based on the straight-line method over the Company's estimated useful lives of the assets, as follows:

Buildings and building improvements, including facility infrastructure	10-25 years
Machinery and equipment, software and hardware	3-15 years

Impairment charges, if needed, are determined based on the policy outlined in M below.

Property and equipment also include assets under capital leases, which are depreciated according to their applicable useful life.

**L. Intangible Assets and Goodwill**

The Company accounts for intangible assets and goodwill in accordance with ASC 350 "*Intangibles-Goodwill and Other*". Intangible assets include the values assigned to the intangible assets as part of the purchase price allocation made at the time of acquisition. Intangible assets are amortized over the expected estimated economic life of the intangible assets commonly used in the industry. Goodwill is not amortized and subject to impairment testing. Impairment charges on intangibles or goodwill, if needed, are determined based on the policy outlined in M below.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**M. Impairment of Assets**

***Impairment of Property, Equipment and Intangible Assets***

The Company reviews long-lived assets and intangible assets on a periodic basis, as well as when such review is required based upon relevant circumstances, to determine whether events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable, considering the undiscounted cash flows expected from them. If applicable, the Company recognizes an impairment loss based upon the difference between the carrying amount and the fair value of such assets, in accordance with ASC 360-10 "*Property, Plant and Equipment*". As of December 31, 2020, the Company concluded there was no impairment to its long-lived assets and intangible assets.

***Impairment of Goodwill***

The Company operates in one reporting unit. The Company performs a qualitative analysis when testing goodwill for impairment. A qualitative goodwill impairment test is performed when the fair value of a reporting unit historically has significantly exceeded the carrying value of its net assets and based on current operations is expected to continue to do so. Otherwise, the Company is required to conduct a quantitative impairment test and estimate the fair value of the reporting unit using a combination of an income approach based on discounted cash flow analysis and a market approach based on market multiples. If the fair value of a reporting unit is less than its carrying value, a goodwill impairment charge is recorded for the difference. As of December 31, 2020, the Company performed a qualitative impairment test for its reporting unit and concluded there was no impairment of goodwill, see also X below.

***Impairment of Investment in Privately-Held Companies***

The Company concluded there was no impairment to its investments in privately-held companies in 2020.

**N. Leases**

On January 1, 2019, the Company adopted the new leasing standard "*Leases*" ("ASC 842"), which requires lessees to recognize a right-of-use ("ROU") asset and a lease liability for all operating and capital leases with a term greater than twelve months and also requires disclosures by lessees and lessors about the amount, timing and uncertainty of cash flows arising from leases.

The Company adopted ASC 842 using the modified retrospective transition method. The adoption of the new standard did not have any impact on the results of operations or cash flows.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**N. Leases (cont.)**

The determination of whether an arrangement is a lease is to be made at inception of a lease contract. ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. ROU assets and lease liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. Whenever leases do not provide an implicit interest rate, an incremental borrowing rate is used based on the information available at the commencement date in determining the present value of lease payments. The lease terms used to calculate the ROU asset and related lease liability include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for operating leases is recognized on a straight-line basis over the lease term as an operating expense. For additional information, see Notes 11D and 11E.

**O. Revenue Recognition**

The Company follows ASC 606 "*Revenue from Contracts with Customers*" and recognizes revenue when it transfers the control of promised goods or services to customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services.

The Company's revenues are generated principally from sales of semiconductor wafers. The Company, to a much lesser extent, also derives revenues from design support and other technical and support services incidental to the sale of semiconductor wafers. The vast majority of the Company's sales are achieved through the effort of its direct sales force.

Wafer sales are recognized at a point in time, which is upon shipment of the Company's products to unaffiliated customers, depending on shipping terms. Accordingly, control of the products transfers to the customer in accordance with the transaction's shipping terms. Taxes imposed by governmental authorities, such as sales taxes or value-added taxes, are excluded from net sales. The Company's contracts typically contain a single performance obligation that is fulfilled on the date of delivery based on shipping terms stipulated in the contract.

The Company provides for sales returns allowance relating to specified yield or quality commitments as a reduction of revenues, based on past experience and specific identification of events necessitating an allowance, which has been in immaterial amounts.

The Company provides its customers with other services that are less significant in scope and amount and for which recognition occurs over time when customers receive the services.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**P. Research and Development**

Research and development costs are charged to operations as incurred. Amounts received or receivable from the government of Israel and others, such as participation in research and development programs, are offset against research and development costs. The accrual for grants receivable is determined based on the terms of the programs, provided that the criteria for entitlement have been met.

**Q. Income Taxes**

The Company accounts for income taxes using an asset and liability approach as prescribed in ASC 740-10 "*Income Taxes*" ("*ASC 740-10*"). This topic prescribes the use of the liability method whereby deferred tax asset and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities. Deferred taxes are measured using the enacted tax rates anticipated (under applicable law as of the balance sheet date) to apply when the deferred taxes are expected to be paid or realized. Deferred tax assets and liabilities, as well as any related valuation allowance, are classified as noncurrent items on the balance sheets.

The Company evaluates the potential realization of its deferred tax assets for each jurisdiction in which the Company operates at each reporting date and establishes valuation allowances when it is more likely than not that all or a part of its deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income of the same character and in the same jurisdiction. The Company considers all available positive and negative evidence in making this assessment, including, but not limited to, the scheduled reversal of deferred tax liabilities and deferred tax assets and projected future taxable income.

A valuation allowance is established, when necessary, to reduce deferred tax assets to the amount that is more likely than not to be realized based on all available evidence.

ASC 740-10 prescribes a two-step approach for recognizing and measuring uncertain tax positions. The first step is to evaluate tax positions taken or expected to be taken in a tax return by assessing whether they are more-likely-than-not sustainable, based solely on their technical merits, upon examination and including resolution of any related appeals or litigation process. The second step is to measure the associated tax benefit of each position as the largest amount that the Company believes is more-likely-than-not realizable. Differences between the amount of tax benefits taken or expected to be taken in its income tax returns and the amount of tax benefits recognized in its financial statements, represent the Company's unrecognized income tax benefits. The Company's policy is to include interest and penalties related to unrecognized income tax benefits as a component of income tax expense.



**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**R. Earnings per Ordinary Share**

Basic earnings per share are calculated in accordance with ASC 260, “*Earnings Per Share*” by dividing net profit or loss attributable to ordinary equity holders of Tower (the numerator) by the weighted average number of ordinary shares outstanding during the reported period (the denominator). Diluted earnings per share are calculated, if applicable, by adjusting net profit attributable to ordinary equity holders of Tower, and the weighted average number of ordinary shares, taking into effect all potential dilutive ordinary shares.

**S. Comprehensive Income**

In accordance with ASC 220 “*Comprehensive Income*”, comprehensive income represents the change in shareholders’ equity during a reporting period from transactions and other events and circumstances from non-owner sources. It includes all changes in equity during a reporting period except those resulting from investments by owners and distributions to owners. Other comprehensive income (“OCI”) represents gains and losses that are included in comprehensive income but excluded from net profit.

**T. Functional Currency and Exchange Rate Income (Loss)**

The currency of the primary economic environment in which Tower, TSSA and TSNP conduct their operations is the U.S. Dollar (“dollar”). Thus, the dollar is their functional and reporting currency. Accordingly, monetary accounts maintained in currencies other than the dollar are re-measured into dollars in accordance with ASC 830-10 “*Foreign Currency Matters*”. All transaction gains and losses from the re-measurement of monetary balance sheet items are reflected in the statements of operations as financial income or expenses, as appropriate. The financial statements of TPSCo, whose functional currency is the Japanese Yen (“JPY”), have been translated into dollars. The assets and liabilities have been translated using the exchange rate in effect as of the balance sheet date. The statements of operations of TPSCo have been translated using the average exchange rate for the reported period. The resulting translation adjustments are charged or credited to OCI.

**U. Stock-Based Compensation**

The Company applies the provisions of ASC Topic 718 “*Compensation - Stock Compensation*”, under which employees’ share-based equity awards (mostly restricted stock units and performance unit shares) are recognized based on the grant-date fair values.

The compensation costs are recognized using the graded vesting attribution method based on the vesting terms of each unit included in the award resulting in an accelerated recognition of compensation costs.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**V. Fair value Measurements of Financial Instruments**

ASC 820, "*Fair Value Measurements and Disclosures*" ("ASC 820"), requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. ASC 820 establishes a fair value hierarchy based on the level of independent, objective evidence surrounding the inputs used to measure fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

ASC 820 prioritizes the inputs into three levels that may be used to measure fair value:

***Level 1***

Level 1 applies to assets or liabilities for which there are quoted prices in active markets for identical assets or liabilities.

***Level 2***

Level 2 applies to assets or liabilities for which there are inputs other than quoted prices that are observable for the asset or liability such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.

***Level 3***

Level 3 applies to assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

The Company's financial instruments primarily consist of cash, bank deposits, account receivables and payables, accrued liabilities, loans and leases whose carrying values approximate their current fair values because of their nature and respective maturity dates or durations. The Company had no financial assets or liabilities carried and measured on a non-recurring basis during the reporting periods. Financial assets and liabilities measured on a recurring basis are those that are adjusted to fair value each time a financial statement is prepared such as marketable securities and investment in privately- held companies.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**W. Derivatives and hedging**

The Company accounts for its derivative instruments as either assets or liabilities and carries them at fair value. The accounting for changes in the fair value of a derivative depends on the intended use of the derivative and the resulting designation.

*For derivative instruments designated as cash flow hedges*, the effective portion of the gains (losses) on the derivatives is initially reported as a component of OCI and is subsequently recognized in earnings when the hedged exposure is recognized in earnings. Gains (losses) on derivatives are recognized in earnings, representing either hedge components excluded from the assessment of effectiveness or hedge ineffectiveness. In January 2019, the Company adopted ASU 2017-12, “*Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedge Activities*”, which amends the hedge accounting recognition and presentation requirements of ASC 815. ASU 2017-12 permits a qualitative effectiveness assessment for certain hedges instead of a quantitative test after the initial qualification, if the Company can reasonably support an expectation of high effectiveness throughout the term of the hedge. Also, for cash flow hedges and net investment hedges, if the hedge is highly effective, all changes in the fair value of the derivative hedging instrument are recorded in other comprehensive income. The adoption of this guidance did not have a material impact on the Company’s financial position, results of operations and cash flows. The consolidated financial statements for the year ended December 31, 2019 were not retrospectively adjusted.

**X. Recently Adopted Accounting Pronouncements**

In January 2017, the FASB issued ASU 2017-04 “*Intangibles - Goodwill and Other: Simplifying the Test for Goodwill Impairment*” (“*Topic 350*”). The Company adopted this guidance in the beginning of 2020 with no impact on its consolidated financial statements. See also M above.

In June 2016, the FASB issued ASU 2016-13 “*Financial Instruments Credit Losses*” (“*ASC 326*”). This update relates to financial reporting of current expected credit losses on financial instruments and other commitments to extend credit. ASU 2016-13 requires that an entity measure and recognize current expected credit losses for financial assets held at amortized cost and replaces the incurred loss impairment methodology in prior GAAP with a methodology that requires consideration of a broader range of information to estimate credit losses. The Company adopted ASU 2016-13 on January 1, 2020 using the modified retrospective approach. The impact of this adoption on its retained earnings and 2020 financial results was not material to the Company’s consolidated financial statements as current expected credit losses were not significant based on historical collection trends, the financial condition of payment partners, and external market factors. See also F and G above.

In March 2020, the FASB issued ASU No. 2020-04, “*Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*”, which provides temporary optional guidance to ease potential accounting impacts associated with transitioning away from reference rates that are expected to be discontinued, such as interbank offered rates and London Interbank Offered Rate (“LIBOR”). The guidance includes practical expedients for contract modifications due to reference rate reform. Generally, contract modifications related to reference rate reform may be considered an event that does not require remeasurement or reassessment of a previous accounting determination at the modification date. This guidance is effective immediately and is only available through December 31, 2022.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**

(dollars in thousands, except per share data)

**NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**Y. Recently Issued Accounting Pronouncements Not Yet Adopted**

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes - Simplifying the Accounting for Income Taxes" ("Topic 740"). This guidance removes certain exceptions related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period, and the recognition of deferred tax liabilities for outside basis differences. This guidance also clarifies and simplifies other areas of ASC 740. This ASU will be effective beginning on January 1, 2021. Early adoption is permitted. Certain amendments in this update must be applied on a prospective basis, certain amendments must be applied on a retrospective basis, and certain amendments must be applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings in the period of adoption. The Company does not believe the adoption of this ASU would have a material effect on the Company's consolidated financial statements.

**NOTE 3 - INVENTORIES**

Inventories consist of the following:

	As of December 31,	
	2020	2019
Raw materials	\$ 60,855	\$ 90,605
Work in process	133,144	91,537
Finished goods	5,127	10,114
	<u>\$ 199,126</u>	<u>\$ 192,256</u>

Work in process and finished goods are presented net of aggregate write-downs to net realizable value of \$1,946 and \$649 as of December 31, 2020 and 2019, respectively.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 4 - OTHER CURRENT ASSETS**

Other current assets consist of the following:

	As of December 31,	
	2020	2019
Tax receivables	\$ 5,019	\$ 8,156
Prepaid expenses	6,990	8,265
Receivables from Hedging transactions - see Notes 10, 12A, and 12D	11,609	3,184
Insurance receivables - see Note 14E	5,949	--
Other receivables	1,243	2,414
	<u>\$ 30,810</u>	<u>\$ 22,019</u>

**NOTE 5 - LONG-TERM INVESTMENTS**

Long-term investments consist of the following:

	As of December 31,	
	2020	2019
Severance-pay funds	\$ 10,472	\$ 11,860
Long-term bank deposits	12,500	12,500
Investments in privately- held companies	17,727	15,725
	<u>\$ 40,699</u>	<u>\$ 40,085</u>

**NOTE 6 - PROPERTY AND EQUIPMENT, NET**

Composition:

	As of December 31,	
	2020	2019
<b>Original cost: (*)</b>		
Land and Buildings, including facility infrastructure	\$ 430,258	\$ 363,133
Machinery and equipment	2,998,019	2,684,980
	<u>\$ 3,428,277</u>	<u>\$ 3,048,113</u>
<b>Accumulated depreciation:</b>		
Buildings, including facility infrastructure	\$ (255,353)	\$ (239,241)
Machinery and equipment	(2,333,753)	(2,126,933)
	<u>\$ (2,589,106)</u>	<u>\$ (2,366,174)</u>
	<u>\$ 839,171</u>	<u>\$ 681,939</u>

(\*) Original cost includes ROU assets under capital lease in the amount of \$213,683 and \$86,087 as of December 31, 2020 and 2019, respectively. The depreciation expense of such assets amounted to \$13,421 and \$9,941 for the years ended December 31, 2020 and 2019, respectively.

As of December 31, 2020 and 2019, the original cost of land, buildings, machinery and equipment was reflected net of investment grants in the aggregate amount of \$285,615.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 7 - INTANGIBLE ASSETS, NET**

Intangible assets consist of the following as of December 31, 2020:

	Useful Life (years)	Cost	Accumulated Amortization	Net
Technologies	4;5;9	\$ 114,805	\$ (112,284)	\$ 2,521
Facilities lease	19	33,500	(25,529)	7,971
Trade name	9	7,834	(7,834)	--
Customer relationships	15	2,600	(2,130)	470
<b>Total identifiable intangible assets</b>		<b>\$ 158,739</b>	<b>\$ (147,777)</b>	<b>\$ 10,962</b>

Intangible assets consist of the following as of December 31, 2019:

	Useful Life (years)	Cost	Accumulated Amortization	Net
Technologies	4;5;9	\$ 111,108	\$ (110,730)	\$ 378
Facilities lease	19	33,500	(24,241)	9,259
Trade name	9	7,702	(7,702)	--
Customer relationships	15	2,600	(1,956)	644
<b>Total identifiable intangible assets</b>		<b>\$ 154,910</b>	<b>\$ (144,629)</b>	<b>\$ 10,281</b>

**NOTE 8 - DEFERRED TAX AND OTHER LONG-TERM ASSETS, NET**

Deferred tax and other long-term assets, net consist of the following:

	As of December 31,	
	2020	2019
Deferred tax asset (see Note 19)	\$ 57,802	\$ 66,362
Right of use - assets under operating leases	18,990	17,828
Prepaid long-term land lease, net	3,055	3,175
Fair value of cross currency interest rate swap (see Note 12D)	10,661	12,625
Long-term prepaid expenses and others	2,893	5,057
	<b>\$ 93,401</b>	<b>\$ 105,047</b>

**NOTE 9 - OTHER CURRENT LIABILITIES**

Other current liabilities consist of the following:

	As of December 31,	
	2020	2019
Tax payables	\$ 4,935	\$ 282
Interest payable on debt	868	1,057
Others	2,102	5,962
	<b>\$ 7,905</b>	<b>\$ 7,301</b>

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 10 - SERIES G DEBENTURES**

In June 2016, Tower raised approximately \$115,000 through the issuance of long-term unsecured non-convertible debentures (“Series G Debentures”).

The Series G Debentures are payable in seven semi-annual consecutive equal installments from March 2020 to March 2023 and carry an annual interest rate of 2.79%, payable semi-annually. The principal and interest amounts are denominated in NIS and are not linked to any index or to any other currency. The Company entered into cash flow hedging transactions to mitigate the foreign exchange rate differences on the principal and interest using a cross currency swap.

As of December 31, 2020 and December 31, 2019, the outstanding principal amount of Series G Debentures was NIS 334 million and NIS 468 million, respectively (approximately \$104,000 and \$135,000, respectively), with related hedging transactions net asset fair value of approximately \$17,000 and \$16,000, respectively. The changes in the fair value of outstanding principal amount of the debentures and in the fair value of the hedging transaction, are attributed to the corresponding changes in the exchange rates during the reported periods (see Note 12D). The Series G Debentures’ indenture includes customary financial and other terms and conditions, including a negative pledge and financial covenants. As of December 31, 2020, the Company was in compliance with all of the financial covenants under the indenture.

Composition by Repayment Schedule:

	As of December 31, 2020				
	Interest rate	2021	2022	2023	Total
Series G Debentures	2.79%	\$ 41,590	\$ 41,590	\$ 20,796	\$ 103,976
Accretion of carrying amount to principal amount					(1,579)
Carrying amount					\$ 102,397

**NOTE 11 - OTHER LONG-TERM DEBT**

**A. Composition:**

	As of December 31,	
	2020	2019
Long-term JPY loan – principal amount – see B and C below	\$ 106,719	\$ 101,365
Capital leases and other long-term liabilities – see D below	162,171	60,277
Operating leases – see E below	18,990	17,828
Less - current maturities	(65,658)	(28,201)
	<u>\$ 222,222</u>	<u>\$ 151,269</u>

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 11 - OTHER LONG-TERM DEBT (Cont.)**

**B. Repayment Schedule of Long-term JPY Loan:**

	As of December 31, 2020						Total
	Interest rate	2021	2022	2023	2024	2025	
Long-term JPY loan	1.95%	\$ 23,715	\$ 23,715	\$ 23,715	\$ 23,715	\$ 11,859	\$ 106,719

**C. Long-term JPY loan**

In June 2018, TPSCo refinanced its two outstanding loans with 11 Billion JPY (approximately \$100,000) new asset-based loan agreements with a consortia of financial institutions comprised of (i) JA Mitsui Leasing, Ltd., (ii) Sumitomo Mitsui Trust Bank, Limited (SMTB) replaced in 2020 by Sumitomo Mitsui Finance and Leasing Company, Limited (SMFL), (iii) Sumitomo Mitsui Banking Corporation (SMBC) and (iv) China trust Commercial Bank Corporation (CTBC) replaced in 2020 by Mitsubishi UFJ Lease & Finance Co. Ltd (MUL) ("JP Loan"). The JP Loan carries a fixed interest rate of 1.95% per annum with principal payable in nine semiannual payments from June 2021 until June 2025. The JP Loan is secured mainly by a lien over the machinery and equipment of TPSCo located in the Uozu and Tonami manufacturing facilities. Outstanding principal amount was approximately \$107,000 as of December 31, 2020.

The JP Loan also contains certain financial ratios and covenants, as well as customary definitions of events of default and acceleration of the repayment schedule. TPSCo's obligations pursuant to the JP Loan are not guaranteed by Tower, NTCJ, or any of its affiliates.

As of December 31, 2020, TPSCo was in compliance with all of the financial ratios and covenants under the amended JP Loan.

**D. Capital Lease Agreements and Other Long-Term Liabilities**

Certain of the Company's subsidiaries enter, from time to time, into capital lease agreements for certain machinery and equipment it operates in some of its fabrication facilities, usually for a period of four years, with an option to buy the machinery and equipment after a period of between three to four years from the start of the lease period. The lease agreements contain annual interest rates of approximately 2% and the assets under the lease agreements are pledged to the lender until the time at which the respective subsidiary will buy the assets. The obligations under the capital lease agreements are guaranteed by Tower, except for TPSCo's obligations under its capital lease agreements.

TPSCo leases its fabrication facility buildings in Japan from NTCJ under a long-term capital lease that was renewed in 2020 for continuation of the lease until at least March 2032. Under the lease agreement, TPSCo and NTCJ are expected to make best efforts to negotiate the purchase of the relevant facilities, buildings and related land, based on terms and conditions stipulated in the lease agreement, however if mutually agreed terms are not reached, the lease contract will continue until at least 2032.



**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 11 - OTHER LONG-TERM DEBT (Cont.)**

As of December 31, 2020 and 2019, the Company's total outstanding capital lease liabilities for fixed assets was \$159,650 and \$60,277, respectively, of which \$34,863 and \$21,070 respectively, were included under current maturities of long-term debt.

The following presents the maturity of capital lease and other long-term liabilities as of December 31, 2020:

Fiscal Year		
2021	\$	38,136
2022		36,606
2023		25,350
2024		26,808
2025		6,788
2026 and on		39,111
<b>Total</b>		<b>172,799</b>
Less - imputed interest		(10,628)
<b>Total</b>	<b>\$</b>	<b>162,171</b>

**E. Operating Lease Agreements**

In 2019, the Company adopted ASU No. 2016-02, "Leases" (Topic 842). The Company enters from time to time into operating leases for office space, operating facilities and vehicles. Operating lease cost for the years ended December 31, 2020, 2019 and 2018 was \$7,627, \$8,045 and \$8,773, respectively. During 2020, cash paid for operating lease liabilities was \$7,065.

The following presents the composition of operating leases in the balance sheets:

	Classification in the Consolidated Balance Sheets	December 31, 2020	December 31, 2019
Right of use - assets under operating leases	Deferred tax and other long-term assets, net	\$ 18,990	\$ 17,828
Lease liabilities:			
Current operating lease liabilities	Current maturities of long-term debt	\$ 6,550	\$ 7,131
Long-term operating lease liabilities	Other long-term debt	12,440	10,697
<b>Total operating lease liabilities</b>		<b>\$ 18,990</b>	<b>\$ 17,828</b>
Weighted average remaining lease term (years)		5.1	4.9
Weighted average discount rate		1.94%	1.95%

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 11 - OTHER LONG-TERM DEBT (Cont.)**

The following presents the maturity of operating lease liabilities as of December 31, 2020:

Fiscal Year	
2021	\$ 6,564
2022	3,526
2023	2,301
2024	2,166
2025	2,202
Thereafter	2,893
<b>Total</b>	<b>19,652</b>
Less – imputed interest	(662)
<b>Total</b>	<b>\$ 18,990</b>

**F. Wells Fargo Credit Line**

TSNP entered into an agreement with Wells Fargo Capital Finance, part of Wells Fargo & Company (“Wells Fargo”), for a secured asset-based revolving credit line in the total amount of up to \$70,000, maturing in 2023 (the “TSNP Credit Line Agreement”). The applicable interest on the loans is at a rate equal to, at lender’s option, either the lender’s prime rate plus a margin ranging from 0.0% to 0.5% or the LIBOR rate plus a margin ranging from 1.25% to 1.75% per annum.

The outstanding borrowing availability varies from time to time based on the levels of TSNP’s eligible accounts receivable, eligible equipment, eligible inventories and other terms and conditions described in the TSNP Credit Line Agreement. The obligations of TSNP under the TSNP Credit Line Agreement are secured by a security interest on all the assets of TSNP. The TSNP Credit Line Agreement contains customary covenants and other terms, including customary events of default. TSNP’s obligations pursuant to the TSNP Credit Line Agreement are not guaranteed by Tower or any of its affiliates.

As of December 31, 2020, TSNP was in compliance with all of the covenants under the TSNP Credit Line Agreement.

As of December 31, 2020, borrowing availability under the TSNP Credit Line Agreement was approximately \$69,000, of which approximately \$1,000 was utilized through letters of credit.

As of December 31, 2020 and 2019, no loan amounts were outstanding under the TSNP Credit Line Agreement.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS**

The Company makes certain disclosures as detailed below with regard to financial instruments, including derivatives. These disclosures include, among other matters, the nature and terms of derivative transactions, information about significant concentrations of credit risk and the fair value of financial assets and liabilities.

**A. Non-Designated Exchange Rate Transactions**

As the functional currency of Tower is the USD and part of Tower's expenses are denominated in NIS, Tower enters from time to time into exchange rate agreements to partially protect against the volatility of future cash flows caused by changes in foreign exchange rates on NIS denominated expenses.

As of December 31, 2020, the fair value amounts of such exchange rate agreements were \$5,143 in an asset position, presented in other current assets with a face value of \$51,000. As of December 31, 2019, the fair value amounts of such exchange rate agreements were \$167 in an asset position, presented in other current assets with a face value of \$48,000.

Changes in the fair values of such derivatives are presented in cost of revenues in the statements of operations.

As the functional currency of the Company is the USD and part of TPSCo revenues and expenses are denominated in JPY, the Company enters from time to time into exchange rate agreements to protect against the volatility of future cash flows caused by changes in foreign exchange rates on JPY denominated amounts. As of December 31, 2020 and 2019, the fair value amounts of such exchange rate agreements were \$150 in an asset position and \$318, in a liability position, respectively, presented in other current assets and other current liabilities, respectively, with a face value of \$40,000 and \$36,000, respectively. Changes in the fair value of such derivatives are presented in the statements of operations.

**B. Concentration of Credit Risks**

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents, bank deposits, marketable securities, derivatives, trade receivables and government and other receivables. The Company's cash, deposits, marketable securities and derivatives are maintained with large and reputable banks and investment banks. The composition and maturities of investments are regularly monitored by the Company. Generally, these securities may be redeemed upon demand and bear minimal risk.

The Company generally does not require collateral for insurance of receivables; however, in certain circumstances, the Company obtains credit insurance or may require advance payments. An allowance for current expected credit losses is maintained with respect to trade accounts receivables and marketable securities. The Company performs ongoing credit evaluations of its customers.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS (Cont.)**

**C. Fair Value of Financial Instruments**

The estimated fair values of the Company's financial instruments, excluding debentures, do not materially differ from their respective carrying amounts as of December 31, 2020 and 2019. The fair value of debentures, based on quoted market prices as of December 31, 2020 and 2019, was approximately \$107,000 and \$140,000, respectively, compared to carrying amounts of approximately \$102,000 and \$132,000, for the above dates, respectively.

**D. Designated Cash Flow Hedge Transactions**

The Company entered into designated cash flow hedging transactions to mitigate the foreign exchange rate differences on principal and interest using a cross currency swap to mitigate the risk arising from the Series G Debentures denomination in NIS.

As of December 31, 2020, the fair value of the swap was \$16,977 in an asset net position, of which \$6,316 was presented in other current assets and \$10,661 was presented in long-term assets. As of December 31, 2019, the fair value of the swap was \$15,642 in an asset net position, of which \$3,017 was presented in other current assets and \$12,625 was presented in long-term assets.

As of December 31, 2020 and December 31, 2019, the effective portions of \$323 loss and \$1,504 income, respectively, were recorded in OCI, of which a loss of \$533 is expected to be recorded in earnings during the twelve months ending December 31, 2021. For the years ended December 31, 2020 and December 31, 2019, the hedging effect on the Company's results of operations was \$5,252 and \$8,816 income, respectively, and was recognized as financing income, to offset the effect of the rate difference related to the Series G Debentures.

**E. Fair Value Measurements**

**Valuation Techniques**

In general, and where applicable, the Company uses quoted prices in active markets for identical assets or liabilities to determine fair value. This pricing methodology applies to the Company's Level 1 assets and liabilities. If quoted prices in active markets for identical assets and liabilities are not available to determine fair value, the Company uses quoted prices for similar assets and liabilities or inputs other than the quoted prices that are observable, either directly or indirectly. This pricing methodology applies to the Company's Level 2 and Level 3 assets and liabilities.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS (Cont.)**

***Level 1 Measurements***

Securities classified as available-for-sale are reported at fair value on a recurring basis. These securities are classified as Level 1 of the valuation hierarchy where quoted market prices from reputable third-party brokers are available in an active market. Changes in fair value of securities available-for-sale are recorded in other comprehensive income.

***Level 2 Measurements***

If quoted market prices are not available, the Company obtains fair value measurements of similar assets and liabilities from an independent pricing service. These securities are reported using Level 2 inputs and the fair value measurements consider observable data that may include dealer quotes, market spreads, cash flows, U.S. government and agency yield curves, live trading levels, trade execution data, market consensus prepayment speeds, credit information, and the security's terms and conditions, among other factors.

For cross currency swap measured under Level 2 - the Company uses the market approach using quotations from banks and other public information.

***Level 3 Measurements***

Equity Securities without Readily Determinable Fair Values - Investments in privately-held companies are measured using the Measurement Alternatives, see Note 2J above. The Company reviews these investments for impairment and observable price changes on a quarterly basis and adjusts the carrying value accordingly. For the years ended December 31, 2020 and 2019, the Company recorded an increase in the value of such investments, of \$358 and \$5,270, respectively, presented in "other income (expense), net", in the statements of operations.

Recurring fair value measurements using the indicated inputs:

	December 31, 2020	Quoted prices in active market for identical liability (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cross currency swap - net asset position	\$ 16,977	\$ --	\$ 16,977	\$ --
Privately-held companies	17,727	--	--	17,727
Marketable securities held for sale	188,186	188,186	--	--
Foreign exchange forward and cylinders - net asset position	5,293	--	5,293	--
	<u>\$ 228,183</u>	<u>\$ 188,186</u>	<u>\$ 22,270</u>	<u>\$ 17,727</u>

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS (Cont.)**

**E. Fair Value Measurements (Cont.)**

	December 31, 2019	Quoted prices in active market for identical liability (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cross currency swap - net asset position	\$ 15,642	\$ --	\$ 15,642	\$ --
Privately-held companies	15,725	--	--	15,725
Marketable securities held for sale	175,305	175,305	--	--
Foreign exchange forward and cylinders - net liability position	(151)	--	(151)	--
	<u>\$ 206,521</u>	<u>\$ 175,305</u>	<u>\$ 15,491</u>	<u>\$ 15,725</u>

**F. Short-Term and Long-Term Deposits and Marketable Securities**

Deposits and marketable securities as of December 31, 2020 included short term deposits in the amount of \$310,230, marketable securities with applicable accrued interest in the amount of \$188,967 and a long-term bank deposit in the amount of \$12,500; as of December 31, 2019, deposits and marketable securities included short term deposits in the amount of \$215,609, marketable securities with applicable accrued interest in the amount of \$176,070 and a long-term bank deposit in the amount of \$12,500.

The following table summarizes amortized costs, gross unrealized gains and losses and estimated fair values of available-for-sale marketable securities as of December 31, 2020:

	Amortized cost (*)	Gross unrealized Gains	Gross Unrealized losses	Estimated fair value
Corporate bonds	\$ 154,577	\$ 1,207	\$ (735)	\$ 155,049
Government bonds	32,894	37	(53)	32,878
Certificate of deposits	248	11	--	259
	<u>\$ 187,719</u>	<u>\$ 1,255</u>	<u>\$ (788)</u>	<u>\$ 188,186</u>

\* Excluding accrued interest of \$781.

The scheduled maturities of available-for-sale marketable securities as of December 31, 2020, were as follows:

	Amortized cost	Estimated fair value
Due within one year	\$ 22,772	\$ 22,800
Due within 2-5 years	138,894	139,210
Due after 5 years	26,053	26,176
	<u>\$ 187,719</u>	<u>\$ 188,186</u>

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS (Cont.)**

**F. Short-Term and Long-Term Deposits and Marketable Securities (Cont.)**

The following table summarizes amortized costs, gross unrealized gains and losses and estimated fair values of available-for-sale marketable securities as of December 31, 2019:

	Amortized cost (*)	Gross unrealized Gains	Gross Unrealized losses	Estimated fair value
Corporate bonds	\$ 154,167	\$ 1,273	\$ (214)	\$ 155,226
Government bonds	2,969	37	--	3,006
Municipal bonds	1,208	21	--	1,229
Money market fund	15,225	366	--	15,591
Certificate of deposits	248	5	--	253
	<u>\$ 173,817</u>	<u>\$ 1,702</u>	<u>\$ (214)</u>	<u>\$ 175,305</u>

\* Excluding accrued interest of \$765.

The scheduled maturities of available-for-sale marketable securities as of December 31, 2019, were as follows:

	Amortized cost	Estimated fair value
Due within one year	\$ 37,845	\$ 37,818
Due within 2-5 years	119,202	120,344
Due after 5 years	16,770	17,143
	<u>\$ 173,817</u>	<u>\$ 175,305</u>

Investments with continuous unrealized losses for less than twelve months and twelve months or more and their related fair values as of December 31, 2020 and December 31, 2019, were as indicated in the following tables:

	December 31, 2020					
	Investment with continuous unrealized losses for less than twelve months		Investments with continuous unrealized losses for twelve months or more		Total Investments with continuous unrealized losses	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Corporate bonds	\$ 24,699	\$ (700)	\$ 9,434	\$ (35)	\$ 34,133	\$ (735)
Government bonds	12,430	(50)	1,497	(3)	13,927	(53)
Total	<u>\$ 37,129</u>	<u>\$ (750)</u>	<u>\$ 10,931</u>	<u>\$ (38)</u>	<u>\$ 48,060</u>	<u>\$ (788)</u>

	December 31, 2019					
	Investment with continuous unrealized losses for less than twelve months		Investments with continuous unrealized losses for twelve months or more		Total Investments with continuous unrealized losses	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Corporate bonds	\$ 8,562	\$ (56)	\$ 23,022	\$ (158)	\$ 31,584	\$ (214)

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 13 - EMPLOYEE RELATED LIABILITIES**

**A. Employee Termination Benefits**

Israeli law, labor agreements and corporate policy determine the obligations of Tower to make severance payments to dismissed Israeli employees and to Israeli employees leaving employment under certain circumstances. Generally, the liability for severance pay benefits, as determined by Israeli law, is based upon length of service and the employee's monthly salary. This liability is primarily covered by regular deposits made each month by Tower into recognized severance and pension funds and by insurance policies maintained by Tower, based on the employee's salary for the relevant month. The amounts so funded and the liability are included on the balance sheets in long-term investments and employee related liabilities in the amounts of \$7,954 and \$10,304, respectively, as of December 31, 2020.

Commencing January 1, 2005, Tower implemented a labor agreement with regard to most of its Israeli employees, according to which monthly deposits into recognized severance and pension funds or insurance policies will release it from any additional severance obligation in excess of the balance in such accounts to such Israeli employees and, therefore, Tower incurs no liability or asset with respect to such severance obligations and deposits, since that date. Any net severance amount as of such date will be released on the employee's termination date. Payments relating to Israeli employee termination benefits were \$5,254, \$5,597 and \$5,158 for 2020, 2019 and 2018, respectively.

TPSCo established a Defined Contribution Retirement Plan (the "DC Plan") for its employees through which TPSCo contributes approximately 9% with employee average match of 1% of employee base salary to the DC Plan. Such contribution releases the employer from further obligation to any payments upon termination of employment. The contribution is remitted either to third party benefit funds based on employee preference, or directly, to those employees who elected not to enroll in the DC Plan. Total payments under the DC Plan in 2020, 2019 and 2018 amounted to \$6,132, \$6,572 and \$6,700, respectively.



**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 13 - EMPLOYEE RELATED LIABILITIES (Cont.)**

**B. TSNP Employee Benefit Plans**

The following information provides the changes in 2020, 2019 and 2018 periodic expenses and benefit obligations due to the bargaining agreement signed between TSNP with its collective bargaining unit employees.

**Post-Retirement Medical Plan**

The components of the net periodic benefit cost and other amounts recognized in other comprehensive income for post-retirement medical plan expense are as follows:

	Year ended December 31,		
	2020	2019	2018
<b>Net periodic benefit cost:</b>			
Service cost	\$ 6	\$ 7	\$ 10
Interest cost	57	72	73
Amortization of prior service costs	--	--	--
Amortization of net loss (gain)	(241)	(298)	(262)
Total net periodic benefit cost	<u>\$ (178)</u>	<u>\$ (219)</u>	<u>\$ (179)</u>
<b>Other changes in plan assets and benefits obligations recognized in other comprehensive income:</b>			
Prior service cost for the period	\$ --	\$ --	\$ --
Net loss (gain) for the period	146	(1)	(376)
Amortization of prior service costs	--	--	--
Amortization of net gain (loss)	241	298	262
Total recognized in other comprehensive income (loss)	<u>\$ 387</u>	<u>\$ 297</u>	<u>\$ (114)</u>
Total recognized in net periodic benefit cost and other comprehensive income (loss)	<u>\$ 209</u>	<u>\$ 78</u>	<u>\$ (293)</u>
<b>Weighted average assumptions used:</b>			
Discount rate	3.40%	4.50%	3.80%
Expected return on plan assets	N/A	N/A	N/A
Rate of compensation increases	N/A	N/A	N/A
<b>Assumed health care cost trend rates:</b>			
Health care cost trend rate assumed for current year (Pre-65/Post-65 Medicare Advantage)	6.20%/(5.00)%	6.90%/13.10%	8.30%/11.10%
Health care cost trend rate assumed for current year (Pre-65/Post-65 Non Medicare Advantage)	6.20%/6.10%	6.90%/7.90%	N/A
Ultimate rate (Pre-65/Post-65)	4.50%/4.50%	4.50%/4.50%	4.50%/4.50%
Year the ultimate rate is reached (Pre-65/Post-65)	2029/2029	2029/2029	2027/2027
Measurement date	December 31, 2020	December 31, 2019	December 31, 2018

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 13 - EMPLOYEE RELATED LIABILITIES (Cont.)**

**B. TSNP Employee Benefit Plans (Cont.)**

**Post-Retirement Medical Plan (Cont.)**

The components of the change in benefit obligation, change in plan assets and funded status for post-retirement medical plan are as follows:

	Year ended December 31,		
	2020	2019	2018
<b>Change in medical plan related benefit obligation:</b>			
Medical plan related benefit obligation at beginning of period	\$ 1,689	\$ 1,628	\$ 1,936
Service cost	6	7	10
Interest cost	57	72	73
Benefits paid	(16)	(17)	(15)
Change in medical plan provisions	--	--	--
Actuarial loss (gain)	146	(1)	(376)
Benefit medical plan related obligation end of period	<u>\$ 1,882</u>	<u>\$ 1,689</u>	<u>\$ 1,628</u>
<b>Change in plan assets:</b>			
Fair value of plan assets at beginning of period	\$ --	\$ --	\$ --
Employer contribution	16	16	15
Benefits paid	(16)	(16)	(15)
Fair value of plan assets at end of period	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>
Medical plan related net funding	<u>\$ (1,882)</u>	<u>\$ (1,689)</u>	<u>\$ (1,628)</u>

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 13 - EMPLOYEE RELATED LIABILITIES (Cont.)**

**B. TSNP Employee Benefit Plans (Cont.)**

**Post-Retirement Medical Plan (Cont.)**

	As of December 31,		
	2020	2019	2018
Amounts recognized in statement of financial position:			
Current liabilities	\$ (62)	\$ (50)	\$ (65)
Non-current liabilities	(1,820)	(1,639)	(1,563)
Net amount recognized	<u>\$ (1,882)</u>	<u>\$ (1,689)</u>	<u>\$ (1,628)</u>
Weighted average assumptions used:			
Discount rate	2.80%	3.40%	4.50%
Rate of compensation increases	N/A	N/A	N/A
Assumed health care cost trend rates:			
Health care cost trend rate assumed for next year (pre 65/ post 65 Medicare Advantage)	6.00%/6.50%	6.20%/(5.00)%	6.90%/13.10%
Health care cost trend rate assumed for next year (pre 65/ post 65 Non-Medicare Advantage)	6.00%/6.50%	6.20%/6.10%	6.90%/7.90%
Ultimate rate (pre 65/ post 65)	4.50%/4.50%	4.50%/4.50%	4.50%/4.50%
Year the ultimate rate is reached (pre 65/ post 65)	2029/2029	2029/2029	2029/2029

The following benefit payments are expected to be paid in each of the next five fiscal years and in the aggregate for the five fiscal years thereafter:

Fiscal Year	Other Benefits
2021	\$ 62
2022	55
2023	58
2024	66
2025	71
2026-2030	\$ 410

Description of Significant Gains and Losses in Obligations:

For Fiscal Year Ended December 31, 2020, the benefit obligation experienced a net actuarial loss that was primarily attributable to the discount rate decrease to 2.80%, compared to 3.40% in the prior year. For Fiscal Year Ended December 31, 2019, the benefit obligation experienced a net actuarial loss that was primarily attributable to the discount rate decrease to 3.40%, compared to 4.50% in the prior year.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 13 - EMPLOYEE RELATED LIABILITIES (Cont.)**

**B. TSNP Employee Benefit Plans (Cont.)**

**TSNP Pension Plan**

TSNP has a pension plan that provides for monthly pension payments to eligible employees upon retirement. The pension benefits are based on years of service and specified benefit amounts. TSNP uses a December 31 measurement date. TSNP's funding policy is to make contributions that satisfy at least the minimum required contribution for IRS qualified plans.

The components of the change in benefit obligation, the change in plan assets and funded status for TSNP's pension plan are as follows:

	Year ended December 31,		
	2020	2019	2018
<b>Net periodic benefit cost:</b>			
Interest cost	\$ 687	\$ 817	\$ 749
Expected return on plan assets	(909)	(930)	(1,427)
Expected Administrative Expenses	100	100	--
Amortization of prior service costs	3	3	3
Amortization of net loss (gain)	27	--	--
<b>Total net periodic benefit cost</b>	<b>\$ (92)</b>	<b>\$ (10)</b>	<b>\$ (675)</b>
<b>Other changes in plan assets and benefits obligations recognized in other comprehensive income:</b>			
Prior service cost for the period	\$ --	\$ --	\$ --
Net loss (gain) for the period	149	1,158	(231)
Amortization of prior service costs	(3)	(3)	(3)
Amortization of net gain (loss)	(27)	--	--
<b>Total recognized in other comprehensive income (loss)</b>	<b>\$ 119</b>	<b>\$ 1,155</b>	<b>\$ (234)</b>
<b>Total recognized in net periodic benefit cost and other comprehensive income (loss)</b>	<b>\$ 27</b>	<b>\$ 1,145</b>	<b>\$ (909)</b>
<b>Weighted average assumptions used:</b>			
Discount rate	3.20%	4.40%	3.70%
Expected return on plan assets	3.80%	4.20%	6.20%
Rate of compensation increases	N/A	N/A	N/A

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 13 - EMPLOYEE RELATED LIABILITIES (Cont.)**

**B. TSNP Employee Benefit Plans (Cont.)**

**TSNP Pension Plan (Cont.)**

The components of the change in benefit obligation, change in plan assets and funded status for TSNP's pension plan are as follows:

	Year ended December 31,		
	2020	2019	2018
<b>Change in benefit obligation:</b>			
Benefit obligation at beginning of period	\$ 21,908	\$ 18,979	\$ 20,629
Interest cost	687	817	749
Benefits paid	(736)	(688)	(607)
Change in plan provisions	--	--	--
Actuarial loss (gain)	1,608	2,800	(1,792)
Benefit obligation end of period	<u>\$ 23,467</u>	<u>\$ 21,908</u>	<u>\$ 18,979</u>
<b>Change in plan assets:</b>			
Fair value of plan assets at beginning of period	\$ 24,454	\$ 22,669	\$ 23,235
Actual return on plan assets	2,337	2,544	(133)
Employer contribution	--	--	175
Expenses paid	(69)	(71)	--
Benefits paid	(737)	(688)	(607)
Fair value of plan assets at end of period	<u>\$ 25,985</u>	<u>\$ 24,454</u>	<u>\$ 22,670</u>
Funded status	<u>\$ 2,518</u>	<u>\$ 2,546</u>	<u>\$ 3,691</u>
<b>Amounts recognized in statement of financial position:</b>			
Non-current assets	\$ 2,518	\$ 2,546	\$ 3,691
Non-current liabilities	-	-	-
Net amount recognized	<u>\$ 2,518</u>	<u>\$ 2,546</u>	<u>\$ 3,691</u>
<b>Weighted average assumptions used:</b>			
Discount rate	2.50%	3.20%	4.40%
Rate of compensation increases	N/A	N/A	N/A

The following benefit payments are expected to be paid in each of the next five fiscal years and in the aggregate for the five fiscal years thereafter:

Fiscal Year	Other Benefits
2021	\$ 913
2022	997
2023	1,074
2024	1,131
2025	1,176
2026-2030	\$ 6,182

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 13 - EMPLOYEE RELATED LIABILITIES (Cont.)**

**B. TSNP Employee Benefit Plans (Cont.)**

**TSNP Pension Plan (Cont.)**

Description of Significant Gains and Losses in Obligations:

For Fiscal Year Ended December 31, 2020, the benefit obligation experienced a net actuarial loss that was primarily attributable to the discount rate decrease to 2.50%, compared to 3.20% in the prior year. For Fiscal Year Ended December 31, 2019, the benefit obligation experienced a net actuarial loss that was primarily attributable to the discount rate decrease to 3.20%, compared to 4.40% in the prior year.

The plan's assets measured at fair value on a recurring basis consisted of the following as of December 31, 2020:

	Level 1	Level 2	Level 3
Investments in mutual funds	\$ --	\$ 25,985	\$ --
Total plan assets at fair value	\$ --	\$ 25,985	\$ --

The plan's assets measured at fair value on a recurring basis consisted of the following as of December 31, 2019:

	Level 1	Level 2	Level 3
Investments in mutual funds	\$ --	\$ 24,454	\$ --
Total plan assets at fair value	\$ --	\$ 24,454	\$ --

TSNP's pension plan weighted average asset allocations on December 31, 2020, by asset category are as follows:

Asset Category	December 31, 2020	Target allocation 2021
Equity securities	25%	20%
Debt securities	75%	80%
Total	100%	100%

TSNP's primary policy goals regarding the plan's assets are cost-effective diversification of plan assets, competitive returns on investment and preservation of capital. Plan assets are currently invested in mutual funds with various debt and equity investment objectives. The target asset allocation for the plan assets is 80% debt, or fixed income securities, and 20% equity securities. Individual funds are evaluated periodically based on comparisons to benchmark indices and peer group funds and investment decisions are made by TSNP in accordance with the policy goals. Actual allocation to each asset category fluctuates and may not be within the target allocation specified above due to changes in market conditions.

The estimated expected return on assets of the plan is based on assumptions derived from, among other things, the historical return on assets of the plan, the current and expected investment allocation of assets held by the plan and the current and expected future rates of return in the debt and equity markets for investments held by the plan. The obligations under the plan could differ from the obligation currently recorded, if management's estimates are not consistent with actual investment performance.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 14 - COMMITMENTS AND CONTINGENCIES**

**A. Liens**

**(1) Loans, Bonds and Capital Leases**

For liens relating to TSNP Credit Line Agreement, see Note 11F. For liens under TPSCo's 2018 JP Loan agreement, see Note 11C. For liens under the capital lease agreements, see Note 11D. For negative pledge under the Series G Debentures' indenture, see Note 10.

**(2) Approved Enterprise Program**

Floating liens are registered in favor of the State of Israel on substantially all of Tower's assets under the Investment Center's approved enterprise status program.

**B. Renewed Contract in relation to TPSCo**

In March 2019, the Company, PSCS and TPSCo, as applicable, signed three-year agreements renewing the previously signed 2014 agreements, to be in effect from April 2019 for an additional 3-year period. Following the purchase of NTCJ (previously named PSCS) by Nuvoton from Panasonic in September 2020, NTCJ assumed the above described contracts at same commercial terms and is utilizing TPSCo's three manufacturing facilities in Japan (see Note 11D). For details on TPSCo's facilities and buildings lease through 2032, see Note 11D above.

**C. License Agreements**

The Company enters into intellectual property and licensing agreements with third parties from time to time. The effect of each of them on the Company's total assets and results of operations is immaterial. Certain of these agreements call for royalties to be paid by the Company to these third parties.

**D. TSNP Lease Agreement**

TSNP leases its fabrication facilities under an operational lease contract that is due to expire in 2022, and that may be extended until 2027 through the exercise of an option at TSNP's sole discretion. In the amendments to its lease, (i) TSNP secured various contractual safeguards designed to limit and mitigate any adverse impact of construction activities on its fabrication operations; and (ii) set forth certain obligations of TSNP and the landlord, including certain noise abatement actions at the fabrication facility. The landlord has made claims that TSNP's noise abatement efforts are not adequate under the terms of the amended lease. TSNP does not agree and is disputing these claims.

**E. IT Security Systems Event**

In September 2020, the Company's information technology ("IT") security systems identified a security event on some of its computerized systems. As a preventive measure, the Company halted certain of its servers and proactively held operations in some of its manufacturing facilities for a few days, following which it commenced to gradually restore operations and

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 14 - COMMITMENTS AND CONTINGENCIES (Cont.)**

**E. IT Security Systems Event (Cont.)**

return to full capability in all its facilities. Due to the immediate procedures implemented, the functionality and quality of the work in progress, as well as customer and employee data, remained protected.

Tower maintains a cyber insurance policy and is working closely with its insurance providers to receive compensation for the damage resulting from the event. The Company included reimbursement to be received from the insurers for incurred costs related to the event under "other current assets" in the balance sheet as of December 31, 2020. The event had no material impact on the financial position of the Company.

**F. An engagement in relation to 8-inch Fabrication Facility Establishment**

In 2017, the Company, Nanjing Development Zone, Tacoma Technology Ltd. and Tacoma (Nanjing) Semiconductor Technology Co., Ltd. (collectively known as "Tacoma"), signed agreements targeting for an 8-inch fabrication facility to be established in Nanjing, China, to be entirely funded by Nanjing and Tacoma.

During the years 2017 and 2019, the Company received a total of \$18,000 and \$9,000, respectively (net of withholding taxes) for consultation and other services it provided. In 2020, Tacoma announced its bankruptcy and did not pay a remainder of \$9,000 (net of withholding taxes) it owed to the Company, however, since the Company accrued for the amounts owed and unpaid by Tacoma for the services provided in previous years, this event had no impact on the Company's results of operations or cash flows in 2020.

**G. Other Agreements**

From time to time, in the ordinary course of business, the Company enters into long-term agreements with various entities for the joint development of products and processes utilizing technologies owned separately by either the other entity or the Company, or owned jointly by both parties, as applicable.

**NOTE 15 - SHAREHOLDERS' EQUITY**

**A. Description of Ordinary Shares**

As of December 31, 2020, Tower had 150 million authorized ordinary shares, par value NIS 15.00 each, of which approximately 108 million were outstanding. Holders of ordinary shares are entitled to participate equally in the payment of cash dividends and bonus share (stock dividend) distributions and, in the event of the liquidation of Tower, in the distribution of assets after satisfaction of liabilities to creditors. Each ordinary share is entitled to one vote on all matters to be voted on by shareholders.



**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 15 - SHAREHOLDERS' EQUITY (Cont.)**

**B. Equity Incentive Plans**

**(1) General**

The Company has granted to its employees and directors options and restricted stock units ("RSUs") to purchase ordinary shares under several share incentive plans adopted by the Company. The specific provisions of each plan and grant vary as to vesting period, exercise price, exercise period and other terms. Generally, (i) the exercise price of options will not be lower than the nominal value of the shares and will equal either the closing market price of the ordinary shares immediately prior to the date of grant, or in relation to grants made from September 2013, an average of the closing price during the thirty trading days immediately prior to the date of grant; (ii) vesting is over a one to four year period according to defined vesting schedules, and for performance RSUs include performance targets; and (iii) options are not exercisable beyond seven or ten years from the grant date, as applicable.

Except for those share incentive plans described below, as of December 31, 2020 and December 31, 2019, there were approximately 3 thousand and 25 thousand options, respectively, which were outstanding under the Company's other share incentive plans (the "Old Plans"). No further options may be granted under the Old Plans.

**(2) Tower's 2013 Share Incentive Plan (the "2013 Plan")**

In 2013, the Company adopted a share incentive plan for directors, officers and employees of the Company which in 2019 was extended to enable grants to third party service providers ("2013 Plan"). Options granted under the 2013 Plan bear an exercise price equal to the average closing price during the thirty trading days immediately prior to the date of grant, vest over up to a three-year period and are not exercisable beyond seven years from the grant date.

Under the 2013 Plan, the Company granted, in 2020 and 2019, a total of 1.11 million RSUs and 1.16 million RSUs, respectively, to its employees and directors (including the below described grants to the CEO and Chairman), with vesting over up to a three-year period. The Company measures compensation expenses of the RSUs based on the closing market price of the ordinary shares immediately prior to the date of grant and amortizes it over the applicable vesting period taking into consideration compliance with performance criteria, if any.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 15 - SHAREHOLDERS' EQUITY (Cont.)**

In September 2020, the Company's shareholders approved the grant of the following RSUs to the Company's CEO and members of the Board of Directors under the 2013 Plan: (i) 109 thousand time vested RSUs and 163 thousand performance based RSUs to the CEO, which RSUs will vest linearly over a three-year period, 33% at the end of each year for three years following the grant date, for a compensation value of approximately \$5,000. Commencing May 2024, the CEO will have to own ordinary shares of the Company at a minimum value that equals at least three times his annual base salary as of May 2024 ("Minimum Holding"). The CEO has 5 years from May 2019 and until May 2024 to accumulate the Minimum Holding (whether by RSUs converted to ordinary shares or purchase of ordinary shares), during which 5 year period he must retain at least 20% of the vested time-based RSUs that are granted to him from May 2019 until the time he will accumulate and maintain such amount of shares that equals or exceeds three times his annual base salary; (ii) 16 thousand time vested RSUs to the chairman of the Board of Directors ("the Chairman") for a total compensation value of \$300, to vest linearly over a three-year period, 33% at the end of each year for three years following the grant date; and (iii) 5 thousand time vested RSUs to each of the 9 members of the Board of Directors serving then (other than to the Chairman and the CEO), for an aggregate compensation value of \$900, vesting over a two-year period, with 50% vesting at the first anniversary of the date of grant and 50% on the second anniversary of the date of grant. The chairman of the Board and each of the members of the Board will have to own ordinary shares of the Company at a minimum value that equals at least 50% of their annual cash compensation ("Minimum Holding"). They have 5 years to accumulate the Minimum Holding (whether by RSUs converted to ordinary shares or purchase of ordinary shares), during which 5 year period they must retain at least 20% of the vested time-based RSUs that were granted to them from July 2020 until the time they will accumulate and maintain such amount of shares that equals or exceeds 50% of their annual cash compensation.

In June 2019, the Company's shareholders approved the grant of the following RSUs to the Company's CEO and members of the Board of Directors under the 2013 Plan: (i) 129 thousand time vested RSUs and 129 thousand performance based RSUs to the CEO, which RSUs will vest linearly over a three-year period, 33% at the end of each year for the three years following the grant date, for a compensation value of \$3,900; (ii) 20 thousand time vested RSUs to the chairman of the Board of Directors ("the Chairman") for a total compensation value of \$300, to vest linearly over a three-year period, 33% at the end of each year for the three years following the grant date; and (iii) 5 thousand time vested RSUs to each of the 8 members of the Board of Directors serving then (other than to the Chairman and the CEO), for an aggregate compensation value of \$600, vesting over a two-year period, with 50% vesting at the first anniversary of the date of grant and 50% on the second anniversary of the date of grant.

In July 2018, the Company's shareholders approved the grant of the following RSUs to the Company's CEO and members of the Board of Directors under the 2013 Plan: (i) 107 thousand time vested RSUs and 72 thousand performance based RSUs to the CEO, which RSUs will vest linearly over a three-year period, 33% at the end of each year for the three years following the grant date, for a compensation value of \$3,900; and, in addition, 50 thousand performance based RSUs vesting over three years, with 65% vesting at the first anniversary of the grant, an additional 25% at the second anniversary and the remaining portion at the third anniversary for an additional compensation value of \$1,100; (ii) 14 thousand time vested RSUs to the Chairman for a total compensation value of \$300, to vest linearly over a three-year period, 33% at the end of each year for the three years following the grant date; and (iii) 3 thousand time vested RSUs to each of the 8 members of the Board of Directors serving then (other than to the Chairman and the CEO), for an aggregate compensation value of \$600, vesting over a two-year period, with 50% vesting on the first anniversary of the date of grant and 50% on the second anniversary of the date of grant.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 15 - SHAREHOLDERS' EQUITY (Cont.)**

**B. Equity Incentive Plans (Cont.)**

As of December 31, 2020, approximately 30 thousand options and approximately 2.2 million RSUs were outstanding under the 2013 Plan. As of December 31, 2019, approximately 318 thousand options and approximately 2 million RSUs were outstanding under the 2013 Plan. Further grants may be approved subject to compensation committee, board of directors and shareholders' approval, as may be required by law.

**(3) i. Share Options awards:**

	2020		2019		2018	
	Number of share options	Weighted average exercise price	Number of share options	Weighted average exercise price	Number of share options	Weighted average exercise price
Outstanding as of beginning of year	343,451	\$ 8.79	508,493	\$ 9.58	580,185	\$ 9.64
Granted	--		--		--	--
Exercised	(308,479)	8.14	(163,375)	11.28	(70,271)	10.19
Terminated	(667)	9.90	(667)	9.90	(921)	9.82
Forfeited	(1,500)	4.42	(1,000)	4.42	(500)	4.42
Outstanding as of end of year	<u>32,805</u>	15.28	<u>343,451</u>	8.79	<u>508,493</u>	9.58
Options exercisable as of end of year	<u>32,805</u>	\$ 15.28	<u>343,451</u>	\$ 8.79	<u>485,579</u>	\$ 9.46

**ii. RSUs awards:**

	2020		2019		2018	
	Number of RSU	Weighted Average Fair Value	Number of RSU	Weighted Average Fair Value	Number of RSU	Weighted Average Fair Value
Outstanding as of beginning of year	2,013,613	\$ 19.13	1,599,296	\$ 22.27	1,245,889	\$ 21.29
Granted	1,105,155	19.86	1,159,881	18.06	977,667	20.80
Converted	(806,993)	20.45	(484,665)	23.91	(602,423)	17.86
Forfeited	(88,732)	18.62	(260,899)	21.19	(21,837)	22.11
Outstanding as of end of year	<u>2,223,043</u>	\$ 19.45	<u>2,013,613</u>	\$ 19.13	<u>1,599,296</u>	\$ 22.27

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 15 - SHAREHOLDERS' EQUITY (Cont.)**

**B. Equity Incentive Plans (Cont.)**

**(4) Summary of Information about Employees' Share Incentive Plans**

The following table summarizes information about employees' share options outstanding as of December 31, 2020:

Range of exercise prices	Outstanding			Exercisable		
	Number outstanding	Weighted average remaining contractual life (in years)	Weighted average exercise price	Number exercisable	Weighted average exercise price	
\$ 12.00 - 17.16	32,805	1.60	\$ 15.28	32,805	\$ 15.28	
Year ended December 31,						
			2020	2019	2018	
The intrinsic value of options exercised			\$ 4,429	\$ 1,824	\$ 1,416	
The original fair value of options exercised			\$ 1,018	\$ 665	\$ 302	
Year ended December 31,						
			2020	2019	2018	
The intrinsic value of converted RSUs			\$ 15,971	\$ 8,207	\$ 15,840	
The original fair value of converted RSUs			\$ 16,506	\$ 11,588	\$ 10,761	

Stock-based compensation expenses were recognized in the Statement of Operations as follows:

	Year ended December 31,		
	2020	2019	2018
Cost of goods	\$ 5,197	\$ 4,529	\$ 3,141
Research and development, net	3,568	2,900	2,533
Marketing, general and administrative	8,223	7,119	6,987
Total stock-based compensation expense	\$ 16,988	\$ 14,548	\$ 12,661

**C. Treasury Stock**

During 1999 and 1998, the Company funded the purchase by a trustee of an aggregate of approximately 87 thousand Tower's ordinary shares. These shares are classified as treasury shares.

**D. Dividend Restriction**

Tower is subject to certain limitations on dividend distribution under the Series G Debentures indenture that allows for distribution of dividends subject to satisfying certain financial ratios.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 16 - INFORMATION ON GEOGRAPHIC AREAS AND MAJOR CUSTOMERS**

**A. Revenues by Geographic Area - as Percentage of Total Revenue**

	Year ended December 31,		
	2020	2019	2018
USA	44%	52%	52%
Japan	28	29	34
Asia (other than Japan)	22	15	10
Europe	6	4	4
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

The basis of attributing revenues from external customers to geographic area is based on the headquarters location of the customer issuing the purchase order; actual delivery may be shipped to another geographic area per customer request.

**B. Long-Lived Assets by Geographic Area**

Substantially all of Tower's long-lived assets are located in Israel, substantially all of TSNP's and TSSA's long-lived assets are located in the United States and substantially all of TPSCo's long-lived assets are located in Japan.

	As of December 31,	
	2020	2019
Israel	\$ 215,006	\$ 219,479
United States	234,902	248,453
Japan	389,263	214,007
	<b>\$ 839,171</b>	<b>\$ 681,939</b>

**C. Major Customers - as Percentage of Net Accounts Receivable Balance**

As of December 31, 2020, two customers exceeded 10% of the net accounts receivable balance and represented 13% and 12% of such balance. As of December 31, 2019, no customer exceeded 10% of the net accounts receivable balance.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 16 - INFORMATION ON GEOGRAPHIC AREAS AND MAJOR CUSTOMERS (Cont.)**

**D. Major Customers - as Percentage of Total Revenue**

	Year ended December 31,		
	2020	2019	2018
Customer A	25%	27%	33%
Customer B	11	7	1
Other customers *	22	25	28

\* Represents aggregated revenue to four customers that accounted for between 4% to 7% of total revenue during 2020, to four customers that accounted for between 5% and 9% of total revenue during 2019, and to four customers that accounted for between 5% and 9% of total revenue during 2018.

**NOTE 17 - FINANCING INCOME (EXPENSE), NET**

Financing income (expense), net consists of the following:

	Year ended December 31,		
	2020	2019	2018
Interest expense	\$ (6,755)	\$ (6,823)	\$ (10,610)
Interest income	8,484	12,949	10,762
TSNP Notes amortization	--	--	(5,010)
Series G Debentures amortization, related rate differences and hedging results	(3,045)	(3,299)	(3,589)
Exchange rate differences	5,190	(968)	(1,064)
Bank fees and others	(1,004)	(1,847)	(3,673)
	<u>\$ 2,870</u>	<u>\$ 12</u>	<u>\$ (13,184)</u>

**NOTE 18 - RELATED PARTIES BALANCES AND TRANSACTIONS**

**A. Balance:**

	<u>The nature of the relationship involved</u>	As of December 31,	
		2020	2019
Long-term investment	Equity investment in a limited partnership	\$ 57	\$ 55

**B. Transactions:**

	<u>Description of the transactions</u>	Year ended December 31,		
		2020	2019	2018
General and Administrative expense	Directors' fees and reimbursement to directors	\$ 787	\$ 783	\$ 736
Other income (expense), net	Non-controlling interest income (loss) from a limited partnership	\$ 2	\$ (55)	\$ 44

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 19 - INCOME TAXES**

**A. Tower Statutory Income Rates**

Substantially all of Tower’s existing facilities and other capital investments made through 2012 have been granted approved enterprise status, as provided by the Law for the Encouragement of Capital Investment in Israel (“Investments Law”).

Tower, as an Israeli industrial company located in Migdal Ha’emek, may elect the Preferred Enterprise regime to apply to it under the Investment Law. The election is irrevocable.

Under the Preferred Enterprise Regime, Tower’s entire preferred income is subject to the tax rate of 7.5%. Any portion of Tower’s Israeli taxable income, that is not eligible for Preferred Enterprise benefits, if at all, shall be taxed at the regular corporate tax rate of 23%.

**B. Income Tax Provision**

The Company’s provision for income taxes is affected by income taxes in a multinational tax environment. The income tax provision is an estimate determined based on current enacted tax laws and tax rates at each of its geographic locations with the use of acceptable allocation methodologies based upon the Company’s organizational structure, the Company’s operations and business mode of work, and result in applicable local taxable income attributable to those locations.

The Company’s income tax provision is comprised of the following:

	Year ended December 31,		
	2020	2019	2018
Current tax expense:			
Local	\$ --	\$ --	\$ 2,164
Foreign	2,232	1,013	9,273
Deferred tax expense (benefit):			
Local	8,481	7,098	9,316
Foreign	(5,314)	(5,163)	(14,815)
Income tax expense	<u>\$ 5,399</u>	<u>\$ 2,948</u>	<u>\$ 5,938</u>
	Year ended December 31,		
	2020	2019	2018
Profit (loss) before taxes:			
Domestic	\$ 100,145	\$ 103,432	\$ 142,831
Foreign	(11,457)	(12,411)	(3,514)
Total profit before taxes	<u>\$ 88,688</u>	<u>\$ 91,021</u>	<u>\$ 139,317</u>

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 19 - INCOME TAXES (Cont.)**

**C. Components of Deferred Tax Asset/Liability**

The following is a summary of the components of the deferred tax assets and liabilities reflected in the balance sheets as of the respective dates (\*)

	As of December 31,	
	2020	2019
Deferred tax asset and liability - long-term:		
Deferred tax assets:		
Net operating loss carryforward	\$ 72,658	\$ 78,783
Employees benefits and compensation	6,813	4,819
Accruals and reserves	3,312	3,341
Research and development	18,179	15,276
Others	3,453	5,068
	<u>104,415</u>	<u>107,287</u>
Valuation allowance, see F below	(10,745)	(7,266)
Deferred tax assets	<u>\$ 93,670</u>	<u>\$ 100,021</u>
Deferred tax liabilities- long-term:		
Depreciation and amortization	\$ (76,136)	\$ (77,966)
Others	(1,018)	(931)
Deferred tax liabilities	<u>\$ (77,154)</u>	<u>\$ (78,897)</u>
Presented in long term deferred tax assets	<u>\$ 57,802</u>	<u>\$ 66,362</u>
Presented in long term deferred tax liabilities	<u>\$ (41,286)</u>	<u>\$ (45,238)</u>

(\*) Deferred tax assets and liabilities relating to Tower for the years 2020 and 2019 are computed based on the Israeli preferred enterprise tax rate of 7.5%.

**D. Unrecognized Tax Benefit**

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	Unrecognized tax benefits
Balance at January 1, 2020	\$ 15,113
Additions for tax positions of current year	624
Reduction due to statute of limitation of prior years	(423)
Balance at December 31, 2020	<u>\$ 15,314</u>



**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 19 - INCOME TAXES (Cont.)**

**D. Unrecognized Tax Benefit (Cont.)**

	Unrecognized tax benefits
Balance at January 1, 2019	\$ 14,783
Additions for tax positions of current year	778
Reduction due to statute of limitation of prior years	(448)
Balance at December 31, 2019	<u>\$ 15,113</u>
	Unrecognized tax benefits
Balance at January 1, 2018	\$ 15,286
Additions for tax positions of current year	716
Reduction due to statute of limitation of prior years	(1,219)
Balance at December 31, 2018	<u>\$ 14,783</u>

**E. Effective Income Tax**

The reconciliation of the statutory tax rate to the effective tax rate is as follows:

	Year ended December 31,		
	2020	2019	2018
Tax expense computed at statutory rates, see (*) below	\$ 20,398	\$ 20,935	\$ 32,044
Effect of different tax rates in different jurisdictions and Preferred Enterprise Benefit	(15,046)	(16,396)	(23,150)
Change in valuation allowance, see F below	3,479	1,432	1,060
Permanent differences and other, net	(3,432)	(3,023)	(4,016)
Income tax expense	<u>\$ 5,399</u>	<u>\$ 2,948</u>	<u>\$ 5,938</u>

(\*) The tax expense was computed based on regular Israeli corporate tax rate of 23%.

**F. Net Operating Loss Carryforward**

As of December 31, 2020, Tower had net operating loss carryforward for tax purposes of approximately \$1,000,000 which may be carried forward indefinitely.

The future utilization of Tower US Holdings' federal net operating loss carryforward to offset future federal taxable income is subject to an annual limitation as a result of ownership changes that have occurred. Additional limitations could apply if ownership changes occur in the future. TSNP has had two "change in ownership" events that limit the utilization of net operating loss carryforward. The first "change in ownership" event occurred in February 2007 upon Jazz Technologies' acquisition of TSNP. The second "change in ownership" event occurred in September 2008, upon Tower's acquisition of TSNP. TSNP concluded that the net operating loss limitation for the change in ownership which occurred in September 2008 will be an annual utilization of approximately \$2,100 in its tax return.

**TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**AS OF DECEMBER 31, 2020**  
(dollars in thousands, except per share data)

**NOTE 19 - INCOME TAXES (Cont.)**

**F. Net Operating Loss Carryforward (Cont.)**

As of December 31, 2020, Tower US Holdings had federal net operating loss carryforward of approximately \$37,500, of which approximately \$20,100 do not expire and is subject to a taxable income limitation of 80% due to the Act, and the remaining federal tax loss carryforwards of \$17,400 will begin to expire in 2022, unless previously utilized.

As of December 31, 2020, Tower US Holdings had California state net operating loss carryforward of approximately \$8,800. The state tax loss carry forward will begin to expire in 2029, unless previously utilized.

Tower US Holdings recorded a valuation allowance against the deferred tax asset balances for its federal and state net operating loss carryforward.

As of December 31, 2020 and 2019, TPSCo had no net operating loss carryforward.

**G. Final Tax Assessments**

Tower possesses final tax assessments through the year 1998. In addition, the tax assessments for the years 1999-2015 are deemed final.

Tower US Holdings files a consolidated tax return including TSNP and TSSA. Tower US Holdings and its subsidiaries are subject to U.S. federal income tax as well as income tax in multiple states.

In general, Tower US Holdings is no longer subject to U.S. federal income tax examinations before 2017 and state and local income tax examinations before 2016. However, to the extent allowed by law, the tax authorities may have the right to examine prior periods where net operating losses were generated and carried forward, and make adjustments up to the amount of the net operating loss carryforward amount.

On March 27, 2020, the CARES Act was signed. The CARES Act provided numerous tax provisions and other stimulus measures, including but not limited to temporary changes regarding the prior and future utilization of net operating losses. Under the provisions of the CARES Act, Tower US Holdings received a \$2,100 income tax refund from carrying back federal net operating losses and a \$1,100 refund of its minimum tax credits.

TPSCo possesses final tax assessments through the year 2016.

## DESCRIPTION OF SECURITIES

The descriptions of the securities contained herein summarize the material terms and provisions of the ordinary shares of Tower Semiconductor Ltd. (the “**Company**”), registered under Section 12 of the Securities Exchange Act of 1934.

### **General**

Our authorized and registered share capital is NIS 2,250,000,000 (two billion two hundred and fifty million) divided into 150,000,000 (one hundred and fifty million) ordinary shares, nominal (par) value NIS 15.00 each.

### **The Nasdaq Global Select Market**

Our ordinary shares are listed on The Nasdaq Global Select Market under the symbol “TSEM”.

### **Memorandum and Articles of Association**

#### ***Election of Directors***

Our ordinary shares do not have cumulative voting rights for the election of directors. Our directors are elected by the general meeting of our shareholders by the vote of a majority of the ordinary shares present, in person or by proxy, and voting at that meeting. Generally, our directors hold office until their successors are elected at the next annual general meeting of shareholders (or until any of their earlier resignation or removal in accordance with the Companies Law). In addition, our Articles of Association allow our board of directors to appoint directors (other than the external directors) to fill vacancies on our board of directors, until the next annual general meeting of shareholders.

#### ***Rights Attached to Shares; Dividend and Liquidation Rights***

Holders of the Company’s 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 liquidation of the Company, in the distribution of assets after satisfaction of liabilities to creditors. No preferred shares are currently authorized.

Under the Companies Law, dividend distributions are determined by the board of directors and do not require the approval of the shareholders of a company unless the company’s articles of association provide otherwise. Our Articles of Association do not require shareholder approval of a dividend distribution and provide that dividend distributions may be determined by our board of directors. Under Israeli law, the distribution amount is limited to the greater of retained earnings or earnings generated over the two most recent years legally available for distribution according to our then last reviewed or audited financial statements (less the amount of previously distributed dividends, if not reduced from the earnings), provided that the date of the financial statements is not more than six months prior to the date of distribution. If we do not meet such criteria, we must seek the approval of the court in order to distribute a dividend. In each case, we are only permitted to distribute a dividend if our board of directors or the court, if applicable, determines that there is no reasonable concern that payment of the dividend will prevent us from satisfying our existing and foreseeable obligations as they become due.

#### ***Modification of Class Rights***

Pursuant to our Articles of Association, at any time the share capital is divided into different classes of shares, the Company may, in a resolution passed at the general meeting by an ordinary majority, convert, expand, add to, reduce or otherwise alter the rights attached to a particular class of shares, provided that the written agreement of all the holders of the shares of such class is received or that the resolution is approved at a general meeting of the holders of the shares of such class by an ordinary majority, or as otherwise provided in the issue terms of the particular class.

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## ***Vote Requirements***

Under our Articles of Association, all resolutions of our shareholders require a simple majority vote, unless otherwise required by the Companies Law or by our Articles of Association. Under our Articles of Association, approval by a special majority of 75% of the ordinary shares represented at a general meeting, in person or by proxy, is required in the event of a reorganization or liquidation of the Company (i) to approve the receipt of stock or securities of the other company; (ii) to distribute or allocate the securities or assets of the Company in a manner different to that in which they should have been distributed or allocated in accordance with the precise legal rights of the Company's shareholders; and (iii) to instruct that shares or assets of the Company, be valued in the manner and at the price resolved by the Company.

Under the Companies Law, certain actions require a special majority, including: (i) the approval of an extraordinary transaction with a controlling shareholder or in which the controlling shareholder has a personal interest, (ii) the terms of employment or other engagement of a controlling shareholder of the company or a controlling shareholder's relative (even if such terms are not extraordinary) and (iii) the adoption or amendment of a compensation policy for officers and directors and certain compensation-related matters, which require the approvals described below under "Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions—*Approval of Director and Officer Compensation.*"

Another exception to the simple majority vote requirement is a resolution for the voluntary winding up, or an approval of a scheme of arrangement or reorganization, of the company pursuant to Section 350 of the Companies Law, which requires the approval of a majority of the holders holding at least 75% of the voting rights represented at the meeting and voting on the resolution.

## ***Transfer of Shares***

Our ordinary shares may generally be freely transferred under the Articles of Association, unless the transfer is restricted or prohibited by applicable law or the rules of the stock exchange on which the shares are traded. The ownership or voting of our ordinary shares by non-residents of Israel is not restricted in any way by our Articles of Association or the laws of the State of Israel, except under certain circumstances for ownership by nationals of certain countries that are, or have been, in a state of war with Israel.

## ***Fiduciary Duties of Directors and Executive Officers***

The Companies Law codifies the fiduciary duties that "office holders" owe to a company. An office holder, as defined in the Companies Law, is a general manager, chief business manager, deputy general manager, vice general manager, another manager directly subordinate to the general manager or any other person assuming the responsibilities of any of the foregoing positions without regard to such person's title, or a director.

An office holder's fiduciary duties consist of a duty of care and a duty of loyalty. The duty of care requires an office holder to act with the level of care with which a reasonable office holder in the same position would have acted under the same circumstances. The duty of care includes a duty to use reasonable means to obtain:

- information on the advisability of a given action brought for his or her approval or performed by virtue of his or her position; and
  - all other important information pertaining to any such action.
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The duty of loyalty requires an office holder to act in good faith and in the best interests of the company, and includes, among other things, the duty to:

- refrain from any conflict of interest between the performance of his or her duties to the company and his or her other duties or personal affairs;
- refrain from any activity that is competitive with the company;
- refrain from exploiting any business opportunity of the company to receive a personal gain for himself or herself or others; and
- disclose to the company any information or documents relating to the company's affairs which the office holder received as a result of his or her position as an office holder.

We may approve an act specified above which would otherwise constitute a breach of the office holder's duty of loyalty, provided that the office holder acted in good faith, the act or its approval does not harm the company and the office holder discloses his or her personal interest a sufficient amount of time before the date for discussion of approval of such act.

### ***Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions***

#### ***Disclosure of Personal Interests of an Office Holder.***

The Companies Law requires an office holder to promptly disclose to the board of directors 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. An interested office holder's disclosure must be made promptly and in any event no later than the first meeting of the board of directors at which the transaction is considered.

A personal interest includes an interest of any person in an act or transaction of a company, including a personal interest of one's relative or of a corporate body in which such person or a relative of such person is a 5% or greater shareholder, director or general manager or in which he or she has the right to appoint at least one director or the general manager, but excluding a personal interest stemming solely from one's ownership of shares in the company. A personal interest includes the personal interest of a person for whom the office holder holds a voting proxy or the personal interest of the office holder with respect to his or her vote on behalf of a person for whom he or she holds a proxy even if such shareholder has no personal interest in the matter. An office holder is not, however, obliged to disclose a personal interest if it derives solely from the personal interest of his or her relative in a transaction that is not considered an extraordinary transaction.

A director and any other office holder who has a personal interest in a transaction which is considered at a meeting of the board of directors or the audit committee may generally (unless it is with respect to a transaction which is not an extraordinary transaction) not be present at such a meeting or vote on that matter unless, with respect to an office holder, the chairman of the audit committee or board of directors (as applicable) determines that the office holder should be present during the discussions in order to present the transaction that is subject to approval (provided that the office holder may not vote on the matter). If a majority of the members of the audit committee or the board of directors (as applicable) has a personal interest in the approval of such a transaction, then all of the directors may participate in deliberations of the audit committee or board of directors, as applicable, with respect to such transaction and vote on the approval thereof. If a majority of the members of the board of directors has a personal interest in the approval of a transaction, shareholder approval is also required for such transaction.

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### *Approval of Transactions with Officer Holders.*

If it is determined that an office holder has a personal interest in a non-extraordinary transaction, meaning any transaction that is in the ordinary course of business, on market terms or that is not likely to have a material impact on the company's profitability, assets or liabilities, approval by the board of directors is required for the transaction, unless the company's articles of association provide for a different method of approval. Our Articles of Association provide that extraordinary transactions with an office holder or in which an officer holder has a personal interest shall be approved by the board of directors or the audit committee or by another entity authorized by the board of directors, and may be approved by granting general approval for a particular class of transactions or by approving a particular transaction. Any such transaction that is adverse to the company's interests may not be approved by the board of directors.

Approval first by the company's audit committee and subsequently by the board of directors is required for an extraordinary transaction (meaning, any transaction that is 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 which an office holder has a personal interest.

### *Approval of Director and Officer Compensation*

*Executive Officers other than the Chief Executive Officer.* Under the Companies Law, the terms of office and employment of officers other than the chief executive officer (who are not directors) require the approval by the (i) compensation committee; (ii) the board of directors; and (iii) if such compensation terms do not comply with the company's stated compensation policy, also by the shareholders, provided that either one of the following conditions are met (the "Special Majority"):

- at least a majority of the shares held by all shareholders who are not controlling shareholders and do not have a personal interest in such matter, present and voting at such meeting, are voted in favor of the compensation package, excluding abstentions; or
- the total number of shares of non-controlling shareholders and shareholders who do not have a personal interest in such matter and who vote against the compensation package does not exceed two percent (2%) of the aggregate voting rights in the Company.

However, if the shareholders of the company do not approve a compensation arrangement with an executive officer (who is not a director) that is inconsistent with the company's stated compensation policy, the compensation committee and board of directors may override the shareholders' decision if each of the compensation committee and the board of directors provide detailed reasons for their decision.

An amendment to an existing arrangement with an office holder who is not the chief executive officer or a director requires only the approval of the compensation committee, if the compensation committee determines that the amendment is not material in comparison to the existing arrangement. However, according to regulations promulgated under the Companies Law, an amendment to an existing arrangement with an office holder (who is not a director) who is subordinate to the chief executive officer shall not require the approval of the compensation committee if (i) the amendment is approved by the chief executive officer and the company's compensation policy provides that a non-material amendment to the terms of service of an office holder (other than the chief executive officer) may be approved by the Chief Executive Officer and (ii) the engagement terms are consistent with the company's compensation policy.

*Chief Executive Officer.* Under the Companies Law, the terms of office and employment of the chief executive officer require approval by the (i) compensation committee; (ii) the board of directors and (iii) the shareholders by the Special Majority. However, if the shareholders of the company do not approve the compensation arrangement with the chief executive officer (who is not a director), the compensation committee and board of directors may override the shareholders' decision if each of the compensation committee and the board of directors provide a detailed report for their decision. Approval of terms of office and employment for the chief executive officer which do not comply with the compensation policy may nonetheless be approved subject to two cumulative conditions: (i) the compensation committee and thereafter the board of directors approved the terms, after having taken into account the various considerations and mandatory requirements set forth in the Companies Law with respect to compensation policies, and (ii) the shareholders of the company approved the terms of office and employment for the chief executive officer which deviate from the compensation policy by means of the Special Majority. A company may be exempted from receiving shareholder approval with respect to the terms of office and employment of a proposed candidate for general manager (chief executive officer) if such candidate meets certain independence criteria, the terms of office and employment are consistent with the compensation policy, and the compensation committee has determined for specified reasons that presenting the matter for shareholder approval would prevent the proposed engagement.

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*Directors.* Under the Companies Law, the terms of office and employment of directors require approval by the (i) compensation committee; (ii) board of directors and (iii) shareholders of the company by ordinary majority. Approval of terms of office and employment for directors of a company that do not comply with the compensation policy may nonetheless be approved subject to two cumulative conditions: (i) the compensation committee and thereafter the board of directors, approved the terms after having taken into account the various considerations and mandatory requirements set forth in the Companies Law with respect to compensation policies, and (ii) the shareholders of the company have approved the terms by means of the Special Majority. However, the terms of office and employment of directors are exempt from shareholder approval if such terms are either (i) only to the benefit of the company, or (ii) the compensation paid does not exceed the maximum compensation payable to external directors under regulations promulgated under the Companies Law, and the compensation committee and board of directors approved the foregoing.

Additional disclosure and approval requirements apply under Israeli law to certain transactions with controlling shareholders, certain transactions in which a controlling shareholder has a personal interest and certain arrangements regarding the terms of service or employment of a controlling shareholder.

### ***Shareholder Duties***

Under the Companies Law, a shareholder has a duty to act in good faith and in a customary manner towards the company and other shareholders and refrain from abusing his or her power in the company, including, among other things, in voting at a 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 and act of office holders that require shareholder approval.

A shareholder also has a general duty to refrain from discriminating against other shareholders.

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 of an 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, but provides that remedies applicable to a breach of contract, shall generally apply to a breach of the duty to act with fairness. With respect to the obligation to refrain from acting discriminatorily, a shareholder that is discriminated against can petition the court to instruct the company to remove or prevent the discrimination, as well as provide instructions with respect to future actions.

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## ***Approval of Significant Private Placements***

Under the Companies Law, a significant private placement of securities requires approval by the board of directors and the shareholders by a simple majority. A private placement is considered a significant private placement if it will cause a person to become a controlling shareholder or if all of the following conditions are met:

- the securities issued amount to 20% or more of the company's outstanding voting rights before the issuance;
- some or all of the consideration is other than cash or listed securities or the transaction is not on market terms; and
- the transaction will increase the relative holdings of a shareholder who holds 5% or more of the company's outstanding share capital or voting rights or will cause any person to become, as a result of the issuance, a holder of more than 5% of the company's outstanding share capital or voting rights.

## ***Merger and Acquisitions under Israeli Law***

*Full Tender Offer.* A person wishing to acquire shares or any class of shares of a publicly traded Israeli company and who would as a result hold over 90% of the company's voting rights, or issued and outstanding share capital or of a class of shares, is required by the Companies Law to make a tender offer to all of the company's shareholders for the purchase of all of the issued and outstanding shares of the company (or the applicable class). If (a) the shares represented by the shareholders who did not tender their shares in the tender offer constitute less than 5% of the issued and outstanding share capital of the company (or the applicable class), and more than half of the shareholders without a personal interest in accepting the offer tendered their shares, or (b) the shareholders who do not accept the offer hold less than 2% of the issued and outstanding share capital of the company (or the applicable class), then all of the shares that the acquirer offered to purchase will be transferred to the acquirer by operation of law. Upon a successful completion of such a full tender offer, any shareholder that was an offeree in such tender offer, whether such shareholder accepted the tender offer or not, may, within six months from the date of acceptance of the tender offer, petition the court to determine whether the tender offer was for less than fair value and whether the fair value should be paid as determined by the court, provided, however, subject to certain exceptions, the terms of the tender offer may state that a shareholder that accepts the offer waives such right. If the full tender offer was not accepted in accordance with any of the above alternatives, the acquirer may not acquire shares of the company that will increase its holdings to more than 90% of the voting rights or the issued and outstanding share capital of the company (or the applicable class) from shareholders who accepted the tender offer.

*Special Tender Offer.* The Companies Law provides that, subject to certain exceptions, an acquisition of shares of an Israeli public company must be made by means of a special tender offer if as a result of the acquisition the purchaser would become a holder of 25% or more of the voting rights in the company. This rule does not apply if there is already another shareholder of the company that holds 25% or more of the voting rights in the company. Similarly, the Companies Law provides that, subject to certain exceptions, an acquisition of shares in a public company must be made by means of a special tender offer if as a result of the acquisition the purchaser would become a holder of more than 45% of the voting rights in the company, if there is no shareholder that holds more than 45% of the voting rights in the company.

No tender offer is required if the acquisition of shares (i) occurs in the context of a private placement by the company that received shareholder approval as a private placement the purpose of which is to give the acquirer at least 25% of the voting rights in the company if there is no person who holds 25% or more of the voting rights in the company, or as a private placement whose purpose is to give the acquirer 45% of the voting rights in the company, if there is no person who holds 45% of the voting rights in the company; or (ii) was from a holder of 25% or 45% of the voting rights in the company, as the case may be.

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A special tender offer must be extended to all shareholders of a company. A special tender offer generally may be consummated only if (i) at least 5% of the voting power attached to the company's outstanding shares will be acquired by the offeror; and (ii) the number of shares tendered in the offer exceeds the number of shares whose holders objected to the offer (excluding the purchaser, its controlling shareholders, holders of 25% or more of the voting rights in the company or any person having a personal interest in the acceptance of the tender offer, or anyone on their behalf, including any such person's relatives and entities under their control).

If a special tender offer is accepted, then shareholders who did not respond to or that had objected the offer may accept the offer within four days of the last day set for the acceptance of the offer and they will be considered to have accepted the offer from the first day it was made.

If a special tender offer is accepted, then the purchaser or any person or entity controlling it, at the time of the offer, and any person or entity under common control with the purchaser or such controlling person or entity may not make a subsequent tender offer for the purchase of shares of the target company and may not enter into a merger with the target company for a period of one year from the date of the offer, unless the purchaser or such person or entity undertook to effect such an offer or merger in the initial special tender offer.

*Merger.* The Companies Law permits merger transactions if approved by each party's board of directors and, unless certain requirements described under the Israeli Law are met, the majority of each party's shares voted on the proposed merger at a shareholders' meeting called on at least 35 days prior notice. The board of directors of a merging company may not approve the merger if it determines that there exists a reasonable concern that, as a result of the merger, the surviving company will be unable to satisfy the obligations of the merging entities.

Under the Companies Law, merger transactions may be approved by holders of a simple majority of our shares present, in person or by proxy, at a general meeting and voting on the transaction. In determining whether the required majority has approved the merger, if shares of a company are held by the other party to the merger, or by any person holding at least 25% of the outstanding voting shares or 25% of the means of appointing directors of the other party to the merger, then a vote against the merger by holders of the majority of the shares present and voting, excluding shares held by the other party or by such person, or anyone acting on behalf of either of them, is sufficient to reject the merger transaction, provided. If the transaction would have been approved but for the exclusion of the votes of certain shareholders as provided above, a court may still approve the merger upon the request of holders of at least 25% of the voting rights of a company, if the court holds that the merger is fair and reasonable, taking into account the value of the parties to the merger and the consideration offered to the shareholders. If a merger is with a company's controlling shareholder or if the controlling shareholder has a personal interest in the merger, then the merger is instead subject to the same special majority approval that governs all extraordinary transactions with controlling shareholders.

Under the Companies Law, a merging company must inform its creditors of the proposed merger. Upon the request of a creditor of either party to the proposed merger, the court may delay or prevent the merger if it concludes that there exists a reasonable concern that, as a result of the merger, the surviving company will be unable to satisfy the obligations of any of the parties to the merger.

In addition, a merger may not be consummated unless at least 30 days have passed from the receipt of the shareholders' approval of both merging companies and 50 days have passed from the date that a merger proposal has been filed with the Israeli Registrar of Companies.

### ***Changes in Capital***

Our Articles of Association enable us to increase or reduce our share capital. Any such changes are subject to the provisions of the Companies Law and must be approved by a resolution duly passed by our shareholders at a general meeting by an ordinary majority. In addition, transactions that have the effect of reducing capital, such as the declaration and payment of dividends in the absence of sufficient retained earnings or profits, require the approval of both our board of directors and an Israeli court.

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**Subsidiaries**

The following is a list of our significant subsidiaries, including the name, country/jurisdiction of incorporation and the proportion of our ownership interest.

<b><u>Subsidiary</u></b>	<b><u>Jurisdiction</u></b>	<b><u>Ownership</u></b>
Tower US Holdings Inc.	Delaware	100% directly
Tower Semiconductor NPB Holdings Inc.	Delaware	100% indirectly through Tower US Holdings Inc.
Tower Semiconductor Newport Beach, Inc.	Delaware	100% indirectly through Tower Semiconductor NPB Holdings Inc.
Newport Fab LLC	Delaware	100% indirectly through Tower Semiconductor Newport Beach Inc.
Tower Semiconductor San Antonio Inc.	Delaware	100% indirectly through Tower US Holdings Inc.
Tower Partners Semiconductor Co., Ltd.	Japan	51% directly

**Certification**

I, Russell C. Ellwanger, certify that:

1. I have reviewed this annual report on Form 20-F of Tower Semiconductor Ltd.;
2. Based on my knowledge, this 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 report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

April 30, 2021

/s/ Russell C. Ellwanger  
Russell C. Ellwanger  
Chief Executive Officer  
Tower Semiconductor Ltd.

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**CERTIFICATION**

I, Oren Shirazi, certify that:

1. I have reviewed this annual report on Form 20-F of Tower Semiconductor Ltd.;
2. Based on my knowledge, this 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 report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

April 30, 2021

/s/ Oren Shirazi  
Oren Shirazi  
Senior VP & Chief Financial Officer  
Tower Semiconductor Ltd.

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**Certification Pursuant To  
18 USC Section 1350,  
As Adopted Pursuant To  
Section 906 Of The Sarbanes-Oxley Act Of 2002**

In connection with the Annual Report of Tower Semiconductor Ltd. (the “Registrant”) on Form 20-F for the year ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Russell C. Ellwanger, Chief Executive Officer of the Registrant, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. the Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

/s/ Russell C. Ellwanger  
Russell C. Ellwanger  
Chief Executive Officer

April 30, 2021

A signed original of this written statement required by Section 906 has been provided to the Registrant and will be retained by the Registrant and furnished to the Securities and Exchange Commission or its staff upon request.

**Certification Pursuant To  
18 USC Section 1350,  
As Adopted Pursuant To  
Section 906 Of The Sarbanes-Oxley Act Of 2002**

In connection with the Annual Report of Tower Semiconductor Ltd. (the “Registrant”) on Form 20-F for the year ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Oren Shirazi, Chief Financial Officer of the Registrant, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. the Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

/s/ Oren Shirazi  
Oren Shirazi  
Senior VP & Chief Financial Officer

April 30, 2021

A signed original of this written statement required by Section 906 has been provided to the Registrant and will be retained by the Registrant and furnished to the Securities and Exchange Commission or its staff upon request.

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We consent to the incorporation by reference in Registration Statement No. 333-204173 on Form S-8 of our reports dated March 3, 2021, relating to the consolidated financial statements of Tower Semiconductor Ltd. (the “Company”) and the effectiveness of the Company’s internal control over financial reporting, appearing in the Company’s Annual Report on Form 20-F for the year ended December 31, 2020.

/s/ Brightman Almagor Zohar &Co

Brightman Almagor Zohar &Co.  
Certified Public Accountants  
A member of Deloitte Touche Tohmatsu

Tel Aviv, Israel  
April 30, 2021

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