TOWER SEMICONDUCTOR LTD.
AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2018

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Deloitte.

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, 2018 and 2017, 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, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Brightman Almagor Zohar & Co.

Brightman Almagor Zohar & Co.
Certified Public Accountants
A Member of Deloitte Touche Tohmatsu Limited

Tel Aviv, Israel
February 28, 2019

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

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

	As of December 31, 2018		As of December 31, 2017	
A S S E T S				
CURRENT ASSETS				
Cash and cash equivalents	$	385,091	$	445,961
Short-term interest-bearing deposits		120,079		--
Marketable securities		135,850		113,874
Trade accounts receivable		153,409		149,666
Inventories		170,778		143,315
Other current assets		22,752		21,516
Total current assets		987,959		874,332
LONG-TERM INVESTMENTS		35,945		26,073
PROPERTY AND EQUIPMENT, NET		657,234		635,124
INTANGIBLE ASSETS, NET		13,435		19,841
GOODWILL		7,000		7,000
DEFERRED TAX AND OTHER LONG-TERM ASSETS, NET		88,404		111,269
TOTAL ASSETS	$	1,789,977	$	1,673,639
LIABILITIES AND SHAREHOLDERS' EQUITY				
CURRENT LIABILITIES				
Current maturities of loans, leases and debentures	$	10,814	$	105,958
Trade accounts payable		104,329		115,347
Deferred revenue and customers' advances		20,711		14,338
Employee related liabilities		50,750		50,844
Other current liabilities		17,117		15,886
Total current liabilities		203,721		302,373
LONG-TERM DEBT				
Debentures		120,170		128,368
Other long-term debt		136,499		100,355
LONG-TERM CUSTOMERS' ADVANCES		28,131		31,908
EMPLOYEE RELATED LIABILITIES		13,898		14,662
DEFERRED TAX LIABILITY		50,401		63,924
OTHER LONG-TERM LIABILITIES		952		2,343
TOTAL LIABILITIES		553,772		643,933
Ordinary shares of NIS 15 par value:		418,492		391,727
150,000 authorized as of December 31, 2018 and 2017				
105,066 and 104,980 issued and outstanding, respectively, as of December 31, 2018				
98,544 and 98,458 issued and outstanding, respectively, as of December 31, 2017				
Additional paid-in capital		1,380,396		1,347,866
Capital notes		20,758		20,758
Cumulative stock based compensation		93,226		80,565
Accumulated other comprehensive loss		(23,388)		(22,759)
Accumulated deficit		(637,446)		(773,025)
		1,252,038		1,045,132
Treasury stock, at cost - 86 shares		(9,072)		(9,072)
THE COMPANY'S SHAREHOLDERS' EQUITY		1,242,966		1,036,060
Non-controlling interest		(6,761)		(6,354)
TOTAL SHAREHOLDERS' EQUITY		1,236,205		1,029,706
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$	1,789,977	$	1,673,639

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,		
	2018	2017	2016
REVENUES	$ 1,304,034	$ 1,387,310	$ 1,249,634
COST OF REVENUES	1,011,087	1,033,005	946,534
GROSS PROFIT	292,947	354,305	303,100
OPERATING COSTS AND EXPENSES:			
Research and development	73,053	67,664	63,134
Marketing, general and administrative	64,951	66,799	65,439
Nishiwaki Fab restructuring and impairment cost (income), net	--	--	(627)
	138,004	134,463	127,946
OPERATING PROFIT	154,943	219,842	175,154
FINANCING EXPENSE, NET	(13,184)	(15,447)	(24,349)
GAIN FROM ACQUISITION, NET	--	--	50,471
OTHER INCOME (EXPENSE), NET	(2,442)	(2,627)	9,322
PROFIT BEFORE INCOME TAX	139,317	201,768	210,598
INCOME TAX BENEFIT (EXPENSE), NET	(5,938)	99,888	(1,432)
NET PROFIT	133,379	301,656	209,166
Net loss (income) attributable to non-controlling interest	2,200	(3,645)	(5,242)
NET PROFIT ATTRIBUTABLE TO THE COMPANY	$ 135,579	$ 298,011	$ 203,924
BASIC EARNINGS PER ORDINARY SHARE:			
Earnings per share	$ 1.35	$ 3.08	$ 2.33
Weighted average number of ordinary shares outstanding	100,399	96,647	87,480
DILUTED EARNINGS PER ORDINARY SHARE:			
Earnings per share	$ 1.32	$ 2.90	$ 2.09
Net profit used for diluted earnings per share	$ 135,579	$ 306,905	$ 212,160
Weighted average number of ordinary shares outstanding used for diluted earnings per share	102,517	105,947	101,303

See notes to consolidated financial statements.

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

	Year ended December 31,		
	2018	2017	2016
Net profit	$ 133,379	$ 301,656	$ 209,166
Other comprehensive income, net of tax:			
Foreign currency translation adjustment	3,599	5,681	923
Change in employees plan assets and benefit obligations, net of taxes in the amount of $81, $171 and $184 for the years ended December 31, 2018, 2017 and 2016, respectively	269	511	(546)
Unrealized gain (loss) on derivatives	(2,704)	1,796	266
Comprehensive income	134,543	309,644	209,809
Comprehensive loss (income) attributable to non-controlling interest	407	(6,565)	(6,902)
Comprehensive income attributable to the Company	$ 134,950	$ 303,079	$ 202,907

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

	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
BALANCE AS OF JANUARY 1, 2016	82,144	$ 326,572	$ 1,273,545	$ 48,553	$ 58,209	$ (264)	$ (26,546)	$ (1,273,654)	$ (9,072)		$ (11,757)	$ 385,586
Changes during the period:												
Issuance of shares	3,297	12,504	27,496									40,000
Conversion of debentures and exercise of warrants into share capital	3,080	12,069	10,223									22,292
Exercise of options	3,650	14,412	3,192									17,604
Capital notes converted into share capital	900	3,500	3,789	(7,289)								--
Employee stock-based compensation					9,406							9,406
Stock-based compensation related to the Facility Agreement with the Banks			480									480
Dividend to Panasonic											(2,563)	(2,563)
Accumulated amount due to adoption of ASU No. 2016-09, Compensation - Stock Compensation (Topic 718)					1,306			(1,306)				--
Other comprehensive income:												
Profit								203,924		$ 203,924	5,242	209,166
Foreign currency translation adjustments							(737)			(737)	1,660	923
Change in employees plan assets and benefit obligations						(546)				(546)		(546)
Unrealized gain on derivatives						266				266		266
Comprehensive income										$ 202,907		
BALANCE AS OF DECEMBER 31, 2016	93,071	$ 369,057	$ 1,318,725	$ 41,264	$ 68,921	$ (544)	$ (27,283)	$ (1,071,036)	$ (9,072)		$ (7,418)	$ 682,614
Changes during the period:												
Issuance of shares	2,914	12,128	4,247									16,375
Exercise of options	1,629	6,750	8,180									14,930
Capital notes converted into share capital	930	3,792	16,714	(20,506)								--
Employee stock-based compensation					11,644							11,644
Dividend to Panasonic											(5,501)	(5,501)
Other comprehensive income:												
Profit								298,011		$ 298,011	3,645	301,656
Foreign currency translation adjustments							2,761			2,761	2,920	5,681
Change in employees plan assets and benefit obligations						511				511		511
Unrealized gain on derivatives						1,796				1,796		1,796
Comprehensive income										$ 303,079		
BALANCE AS OF DECEMBER 31, 2017	98,544	$ 391,727	$ 1,347,866	$ 20,758	$ 80,565	$ 1,763	$ (24,522)	$ (773,025)	$ (9,072)		$ (6,354)	$ 1,029,706
Changes during the period:												
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
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										$ 134,950		
BALANCE AS OF DECEMBER 31, 2018	105,066	$ 418,492	$ 1,380,396	$ 20,758	$ 93,226	$ (672)	$ (22,716)	$ (637,446)	$ (9,072)		$ (6,761)	$ 1,236,205
OUTSTANDING SHARES, NET OF TREASURY STOCK AS OF DECEMBER 31, 2018	104,980											

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

	Year ended December 31,		
	2018	2017	2016
CASH FLOWS - OPERATING ACTIVITIES			
Net profit	$ 133,379	$ 301,656	$ 209,166
Adjustments to reconcile net profit for the period to net cash provided by operating activities:			
Income and expense items not involving cash flows:			
Depreciation and amortization	214,391	208,411	197,606
Effect of indexation, translation and fair value measurement on debt	(9,791)	12,865	8,442
Other expense (income), net	2,442	2,627	(9,322)
Gain from acquisition, net	--	--	(50,471)
Changes in assets and liabilities:			
Trade accounts receivable	(3,096)	(6,564)	(30,104)
Other current assets	11,260	(8,321)	(265)
Inventories	(26,344)	(4,277)	(22,069)
Trade accounts payable	(3,562)	(8,649)	5,550
Deferred revenue and customers' advances	2,625	(21,803)	23,581
Employee related liabilities and other current liabilities	(867)	(8,219)	(145)
Long-term employee related liabilities	(795)	(3,247)	(798)
Deferred tax, net	(5,354)	(108,459)	(4,564)
Other long-term liabilities	(1,391)	(385)	861
Net cash provided by operating activities	312,897	355,635	327,468
CASH FLOWS - INVESTING ACTIVITIES			
Investments in property and equipment	(210,192)	(187,676)	(217,496)
Proceeds related to sale of property and equipment	40,451	20,038	7,872
Investment grants received	--	2,921	--
Investments in other assets	(14,536)	--	--
Deposits and marketable securities, net	(143,940)	(80,643)	(17,101)
Net cash used in investing activities	(328,217)	(245,360)	(226,725)
CASH FLOWS - FINANCING ACTIVITIES			
Issuance of debentures, net	--	--	113,149
Exercise of warrants and options, net	714	31,315	38,803
Proceeds from loans, net	98,990	--	55,960
Loans repayment	(142,285)	(43,259)	(132,018)
Principal payments on account of capital lease obligation	(5,554)	(781)	--
Debentures repayment	--	(6,215)	--
Dividend paid to Panasonic	--	(4,378)	(2,563)
Net cash provided by (used in) financing activities	(48,135)	(23,318)	73,331
EFFECT OF FOREIGN CURRENCY EXCHANGE RATE CHANGE	2,585	3,720	5,635
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(60,870)	90,677	179,709
CASH AND CASH EQUIVALENTS - BEGINNING OF PERIOD	445,961	355,284	175,575
CASH AND CASH EQUIVALENTS - END OF PERIOD	$ 385,091	$ 445,961	$ 355,284

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

	Year ended December 31,		
	2018	2017	2016
NON-CASH ACTIVITIES:			
Investments in property and equipment	$ 28,052	$ 28,419	$ 25,256
Conversion of notes into share capital	$ 58,586	$ --	$ 611
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid during the period for interest	$ 11,835	$ 14,068	$ 10,543
Cash received during the period from interest	$ 8,818	$ 3,870	$ 1,009
Cash paid during the period for income taxes, net	$ 5,768	$ 17,668	$ 3,485

See notes to consolidated financial statements.

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) Jazz US Holdings Inc. and its wholly-owned subsidiary, Jazz Semiconductor, Inc., an independent semiconductor foundry focused on specialty process technologies for the manufacture of analog intensive mixed-signal semiconductor devices (Jazz US Holdings Inc. and Jazz Semiconductor, Inc. collectively referred to herein as "Jazz"); and (2) since February 2016, Tower US Holdings is also the sole owner of TowerJazz Texas Inc. ("TJT"); and (ii) its 51% owned subsidiary, 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. 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 (BCD and 700V) 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 leading edge 45nm CMOS, 65nm RF CMOS and 65nm 1.12um pixel technologies, including 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.

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

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. 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 the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

B. 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.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

C. Cash and Cash Equivalents

Cash and cash equivalents consist of cash, bank deposits and short-term investments with original maturities of three months or less.

D. Short-Term Interest-Bearing Deposits

Short-term deposits include bank deposits with original maturities greater than three months and to be matured within 12 months from balance sheet date.

E. Marketable securities

The Company accounts for investments in 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 classified as "available-for-sale" are carried 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.

The Company's securities are reviewed for impairment in accordance with ASC 320-10-35. If such assets are considered to be impaired, the impairment charge is recognized in earnings when a decline in the fair value of its investments below the cost basis is judged to be other-than-temporary. Factors considered in making such a determination include the duration and severity of the impairment, the reason for the decline in value, the potential recovery period and the Company's intent to sell, including whether it is more likely than not that the Company will be required to sell the investment before recovery of cost basis. For securities with an unrealized loss that the Company intends to sell, or it is more likely than not that the Company will be required to sell before recovery of their amortized cost basis, the entire difference between amortized cost and fair value is recognized in earnings.

For securities that do not meet these criteria, the amount of impairment recognized in earnings is limited to the amount related to credit losses, while declines in fair value related to other factors are recognized in OCI.

If quoted prices for identical instruments are available in an active market, marketable securities are classified within Level 1 of the fair value hierarchy. If quoted prices for identical instruments in active markets are not available, fair values are estimated using quoted prices of similar instruments and are classified within Level 2 of the fair value hierarchy.

(dollars in thousands, except per share data)

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

F. Trade Accounts Receivables - Allowance for Doubtful Accounts

The allowance for doubtful accounts is computed on the specific identification basis for accounts whose collectability, in the Company's estimation, is uncertain. As of December 31, 2018 and 2017, the amounts in the allowance for doubtful accounts totaled to $4,208 and $608, respectively, $3,000 of which is included in 2018 from one customer located in the Far East region.

G. 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.

H. 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 S below.

The Company determines lease classification based on the criteria established in ASC 840. When the Company determines, based on the criteria, that a lease should be classified as capital lease, an asset and corresponding liability is recognized. Each capital lease is recorded as an asset and an obligation at an amount that is equal to the present value of the minimum lease payments over the lease term. Assets under capital lease are part of property plant and equipment and are depreciated accordingly.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

I. 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 test. Impairment charges on intangibles or goodwill, if needed, are determined based on the policy outlined in S below.

J. Deferred Tax Asset and Other Long-Term Assets, Net

Deferred tax asset and other assets, net include: (i) deferred tax asset as described in Note 18; (ii) fair market value of derivative instrument used in hedging of Debentures Series G, see T below and (iii) prepaid long-term lease payments to the Israel Land Administration ("ILA") for the land on which the Company's Israeli fabs are established, net of accumulated amortization over the lease period, see also Note 14C.

K. Debentures - Classification of Liabilities and Equity of Convertible Debentures

Convertible debentures are evaluated to determine whether they include conversion features or other embedded derivatives that warrant bifurcation. The Company applies ASC 815-40 "Contract in Entity's Own Equity" in determining whether an instrument that may be settled in Tower's shares is also considered indexed to a company's own stock, for the purpose of classification of the instrument as a liability or equity.

L. Revenue Recognition

ASC Topic 606 "*Revenue from Contracts with Customers*" ("Topic 606"), supersedes the revenue recognition requirements and industry-specific guidance under Revenue Recognition. Topic 606 requires an entity to recognize revenue when it transfers the control of promised goods or services to customers in an amount that reflects the consideration the entity expects to be entitled to in exchange for those goods or services. The Company adopted Topic 606 on January 1, 2018, using the modified retrospective method applied to contracts that were not completed as of January 1, 2018.

Under the modified retrospective method, prior period financial positions and results are not adjusted. There was no transition adjustment to the company's retained earning upon adoption.

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.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

L. Revenue Recognition (cont.)

Wafer sales are recognized at a point in time, which is upon shipment or upon delivery 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. Sales revenue is recognized for the amount of consideration that the Company expects to be entitled to in exchange for its products. 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 is over time when customer receives the services.

M. Research and Development

Research and development costs are charged to operations as incurred. Amounts received or receivable from the government of Israel and others, 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.

N. 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 computed based on the tax rates anticipated (under applicable law as of the balance sheet date) to be in effect when the deferred taxes are expected to be paid or realized. Deferred tax assets and liabilities, as well as any related valuation allowance, are classified as noncurrent in a classified statement of financial position.

The Company evaluates realizability 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 projected future taxable income.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

N. Income Taxes (cont.)

In circumstances where there is sufficient negative evidence indicating that the Company's deferred tax assets are not more-likely-than-not realizable, the Company establishes a valuation allowance, see Note 18.

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.

O. Earnings Per Ordinary Share

Basic earnings per share are calculated in accordance with ASC 260, "*Earnings Per Share*" by dividing 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 profit attributable to ordinary equity holders of Tower, and the weighted average number of ordinary shares, taking into effect all potential dilutive ordinary shares.

P. 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 income.

Q. Functional Currency and Exchange Rate Income (Loss)

The currency of the primary economic environment in which Tower, TJT and Jazz 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.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Q. Functional Currency and Exchange Rate Income (Loss) (cont.)

The statement of operations of TPSCo has been translated using the average exchange rate for the reported period. The resulting translation adjustments are charged or credited to OCI.

R. Stock-Based Compensation

The Company applies the provisions of ASC Topic 718 "*Compensation - Stock Compensation*", under which employees' share-based equity awards are accounted for under the fair value method. Accordingly, stock-based compensation granted to employees and directors is measured at the grant date, based on the fair value of the grant. The Company uses the straight-line attribution method to recognize stock-based compensation costs over the vesting period of the grant, except for grants that involve performance criteria, for which an accelerated method is used.

S. 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 a review is required based upon relevant circumstances, to determine whether events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable, considering the undiscounted cash flows expected from it. 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*".

Impairment of Goodwill
The Company evaluates goodwill qualitatively for impairment at least annually or whenever an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. If the Company determines that a quantitative analysis is necessary, the impairment test for goodwill is currently a two-step process. Step one consists of a comparison of the fair value of a reporting unit against its carrying amount, including the goodwill allocated to each reporting unit. If the carrying amount of the reporting unit is in excess of its fair value, step two requires the comparison.

Any excess of the carrying value of the reporting unit's goodwill over the implied fair value of the reporting unit's goodwill is recorded as an impairment loss.

The Company uses the income approach methodology of valuation that includes discounted cash flows to determine the fair value of the unit. Significant management judgment is required in the forecasts of future operating results used for this methodology.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

T. Fair value of Financial Instruments and Fair Value Measurements

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 of cash, bank deposits, marketable securities, account receivable and payables, accrued liabilities, loans and leases 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.

U. Derivatives and hedging

Derivative instruments are recognized as either assets or liabilities and are measured 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 fair value hedges, the gains (losses) are recognized in earnings in the periods of change together with the offsetting losses (gains) on the hedged items attributed to the risk being hedged.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

U. Derivatives and hedging (cont.)

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 representing either hedge components excluded from the assessment of effectiveness or hedge ineffectiveness are recognized in earnings.

For derivative instruments that are not designated as hedges, gains (losses) from changes in fair values are primarily recognized in the same line of the item economically hedged.

V. Accounts Receivable 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.

W. Reclassification and Presentation

Certain amounts in prior years' financial statements have been reclassified in order to conform to the 2018 presentation.

X. Recently Adopted Accounting Pronouncements

Effective January 1, 2018, the Company adopted Accounting Standards Update ("ASU") 2014-09, "*Revenue from Contracts with Customers*", which provides a principles-based, five-step approach to measure and recognize revenue from contracts with customers. Adoption of this ASU did not have a material effect on the Company's financial position, results of operations or cash flows.

In October 2016, the FASB issued ASU 2016-16 to require the recognition of the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. Current GAAP prohibits the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party, the amendments in this Update eliminate the exception for an intra-entity transfer of an asset other than inventory. The amendments are effective January 1, 2018, and for interim periods within that year. The adoption of this guidance did not have an impact on the Company's consolidated financial statements.

Y. Recently Issued Accounting Pronouncements

In August 2018, the FASB issued ASU No. 2018-13 "*Fair Value Measurement*" Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement. This ASU removes certain disclosure requirements regarding the amounts and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy and the policy for timing of transfers between the levels.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Y. Recently Issued Accounting Pronouncements (cont.)

The ASU also adds disclosure requirements regarding unrealized gains and losses included in Other Comprehensive Income for recurring Level 3 fair value measurements and regarding the range and weighted average of unobservable inputs used in Level 3 fair value measurements. This ASU is effective for annual periods and interim periods within those annual periods beginning after December 15, 2019. The removal of certain disclosures is to be applied retrospectively for all periods presented, but the additional required disclosures are to be prospectively applied, and early application is permitted. The Company does not expect any transfers between Level 1 and Level 2 of the fair value hierarchy, and as of December 31, 2018, it has no assets or liabilities with fair value measurements in Level 3 of the fair value hierarchy. Accordingly, it does not expect adoption of this ASU to have a material effect on its financial position, results of operations or cash flows.

In June 2018, the FASB issued ASU No. 2018-07 "*Compensation - Stock Compensation*" ("Topic 718"): Improvements to Nonemployee Share-Based Payment Accounting. This ASU expands the scope of Topic 718 to include accounting for share-based payments for acquiring goods and services from non-employees except for specific guidance on assumptions used in an option pricing model and expense attribution. Topic 718is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2018, with early adoption permitted. The Company currently does not have any stock-based instruments outstanding to non-employees and does not anticipate any such awards in the foreseeable future. Accordingly, the Company does not expect adoption of this ASU to have a material effect on its financial position, results of operations or cash flows.

In February 2018, the FASB issued ASU No. 2018-02 "Reporting Comprehensive Income" ("ASU 2018-02"): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. This ASU is intended to help companies reclassify certain stranded income tax effects in accumulated other comprehensive income ("AOCI") resulting from the Tax Cuts and Jobs Act of 2017 (the "Act"), which was enacted in December 2017. ASU 2018-02 provides for the elimination of stranded tax effects of the Act by allowing reclassification of stranded tax effects from AOCI to retained earnings. This ASU is applicable only to tax effects relating to the Act, and the existing guidance regarding effects of other changes in tax laws is not affected. This ASU was early adopted for the year ended December 31, 2018 and had no material effect on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, which clarified its guidance to simplify the measurement of goodwill by eliminating the Step 2 impairment test. The new guidance requires companies to perform the goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. The amendment will be effective beginning in its first quarter of fiscal year 2020. The amendment is required to be adopted prospectively. Early adoption is permitted. The Company does not expect that the adoption of this guidance will have a material impact on its consolidated financial statements.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Y. Recently Issued Accounting Pronouncements (cont.)

In May 2017, the FASB issued ASU 2017-09, which provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. The guidance is effective beginning in the first quarter of fiscal year 2018. The adoption of this guidance did not have an impact on the Company's operating results.

In August 2017, the FASB issued (ASU 2017-12, which targets improvements to accounting for hedging activities which amends and simplifies existing guidance in order to allow companies to more accurately present the economic effects of risk management activities in the financial statements. The guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. The Company early adopted this guidance with no impact on its consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01 to address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The standard requires entities to measure equity investments that do not result in consolidation and are not accounted for under the equity method at fair value and recognize any changes in fair value in net income. The provisions under this amendment are effective January 1, 2018, and for interim periods within that year. The impact of ASU 2016-01 on the Company's consolidated financial statements was immaterial.

In February 2016, the FASB issued ASU 2016-02 "*Leases"* ("ASU 2016-02"), which primarily changes the leases accounting for operating leases by requiring recognition of lease right-of-use assets and lease liabilities. The amendments are effective January 1, 2019, and for interim periods within that year, with early adoption permitted. In July 2018, the FASB issued ASU 2018-10 "*Codification Improvements to Topic 842, Leases*," to clarify application of certain aspects of the new leases standard and to remove inconsistencies within the guidance and ASU 2018-11 "*Targeted Improvements*"(" ASU 2018-11 "), which provides for an alternate transition method. Specifically, ASU 2018-11 allows the new lease standard to be applied as of the adoption date with a cumulative-effect adjustment to the opening balance of retained earnings rather than retroactive restatement of all periods presented. The Company has identified all existing operating and financing leases and is in the process of determining the present value of existing lease assets and liabilities under the new guidance. The Company is also currently finalizing processes and controls to identify, classify and measure new leases in accordance with ASU 2016-02.

(dollars in thousands, except per share data)

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Y. Recently Issued Accounting Pronouncements (cont.)

The Company is still evaluating the effect of ASU 2016-02 on its consolidated financial statements and expects it would not have an impact on its results of operations.

In June 2016, the FASB issued ASU 2016-13 "*Financial Instruments Credit Losses*". This update requires a financial asset (or a group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. The measurement of expected credit losses is based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. An entity must use judgment in determining the relevant information and estimation methods that are appropriate in its circumstances. The update is effective January 1, 2020, and for interim periods within that year. Early adoption is permitted only after January 1, 2019. The Company has previously incurred immaterial amount of bad debt and expecting no material impact from adopting this guidance on its consolidated financial statements and disclosures.

In November 2016, the FASB issued ASU 2016-18 to require amounts generally described as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments are effective January 1, 2018, and for interim periods within that year. The adoption of this guidance did not have an impact on the Company's consolidated financial statements.

NOTE 3 - INVENTORIES

Inventories consist of the following:

	As of December 31,	
	2018	2017
Raw materials	$ 72,144	$ 48,220
Work in process	92,047	92,764
Finished goods	6,587	2,331
	$ 170,778	$ 143,315

Work in process and finished goods are presented net of aggregate write-downs to net realizable value of $1,206 and $1,352 as of December 31, 2018 and 2017, respectively.

(dollars in thousands, except per share data)

NOTE 4 - OTHER CURRENT ASSETS

Other current assets consist of the following:

	As of December 31, 2018	As of December 31, 2017
Tax receivables	$ 3,997	$ 9,144
Prepaid expenses	14,170	11,634
Interest on deposits and other receivables	4,585	738
	$ 22,752	$ 21,516

NOTE 5 - LONG-TERM INVESTMENTS

Long-term investments consist of the following:

	As of December 31, 2018	As of December 31, 2017
Severance-pay funds, net	$ 13,615	$ 13,317
Long-term interest bearing bank deposit	12,500	12,500
Others	9,830	256
	$ 35,945	$ 26,073

NOTE 6 - PROPERTY AND EQUIPMENT, NET

Composition

	As of December 31, 2018	As of December 31, 2017
Original cost:		
Land and Buildings (including facility infrastructure)	$ 347,798	$ 343,247
Machinery and equipment	2,482,609	2,282,042
	$ 2,830,407	$ 2,625,289
Accumulated depreciation:		
Buildings (including facility infrastructure)	$ (224,796)	$ (215,515)
Machinery and equipment	(1,948,377)	(1,774,650)
	$ (2,173,173)	$ (1,990,165)
	$ 657,234	$ 635,124

As of December 31, 2018 and 2017, the original cost of land, buildings, machinery and equipment was reflected net of investment grants in the aggregate amount of $285,636 and $285,930, respectively.

(dollars in thousands, except per share data)

NOTE 6 - PROPERTY AND EQUIPMENT, NET (cont.)

The following is the composition of the leased equipment under capital lease agreements included under "machinery and equipment" above:

	As of December 31, 2018	As of December 31, 2017
Original cost - machinery and equipment	$ 53,441	$ 16,630
Accumulated depreciation - machinery and equipment	(5,500)	(306)
	$ 47,941	$ 16,324

NOTE 7 - INTANGIBLE ASSETS, NET

Intangible assets consist of the following as of December 31, 2018:

	Useful Life (years)	Cost	Accumulated Amortization	Net
Technologies	4;5;9	$ 110,835	$ (108,888)	$ 1,947
Facilities lease	19	33,500	(22,953)	10,547
Patents and other core technology rights	9	15,100	(15,100)	--
Trade name	9	7,671	(7,547)	124
Customer relationships	15	2,600	(1,783)	817
Others	--	1,000	(1,000)	--
Total identifiable intangible assets		$ 170,706	$ (157,271)	$ 13,435

Intangible assets consist of the following as of December 31, 2017:

	Useful Life (years)	Cost	Accumulated Amortization	Net
Technologies	4;5;9	$ 110,310	$ (103,897)	$ 6,413
Facilities lease	19	33,500	(21,665)	11,835
Patents and other core technology rights	9	15,100	(15,100)	--
Trade name	9	7,612	(7,009)	603
Customer relationships	15	2,600	(1,610)	990
Others	--	1,000	(1,000)	--
Total identifiable intangible assets		$ 170,122	$ (150,281)	$ 19,841

(dollars in thousands, except per share data)

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,	
	2018	2017
Deferred tax asset (see Note 18)	$ 73,460	$ 82,852
Prepaid long-term land lease, net (see Note 14C)	3,296	3,417
Fair value of cross currency interest rate swap (see Note 12D)	6,722	18,005
Long-term prepaid expenses and others	4,926	6,995
	$ 88,404	$ 111,269

NOTE 9 - OTHER CURRENT LIABILITIES

Other current liabilities consist of the following:

	As of December 31,	
	2018	2017
Tax payables	$ 12,096	$ 8,567
Interest payable	986	3,160
Others	4,035	4,159
	$ 17,117	$ 15,886

NOTE 10 - DEBENTURES

A. Composition by Repayment Schedule:

	As of December 31, 2018						
	Interest rate	2019	2020	2021	2022	2023	Total
Debentures Series G (see B below)	2.79%	$ --	$ 35,676	$ 35,676	$ 35,676	$ 17,839	$ 124,867
Total outstanding principal amounts of debentures		$ --	$ 35,676	$ 35,676	$ 35,676	$ 17,839	$ 124,867
Accretion of carrying amount to principal amount							(4,697)
Carrying amount							$ 120,170

(dollars in thousands, except per share data)

NOTE 10 - DEBENTURES

A. Composition by Repayment Schedule (cont.)

	As of December 31, 2017							
	Interest rate	2018	2019	2020	2021	2022	2023	Total
Debentures Series G (see B below)	2.79%	$ --	$ --	$ 38,568	$ 38,568	$ 38,568	$ 19,283	$ 134,987
Jazz's Notes (see C below)	8%	58,307	--	--	--	--	--	58,307
Total outstanding principal amounts of debentures		$ 58,307	$ --	$ 38,568	$ 38,568	$ 38,568	$ 19,283	$ 193,294
Accretion of carrying amount to principal amount								(11,629)
Carrying amount								$ 181,665

B. Debentures Series G

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 carrying 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 hedging transactions to mitigate the foreign exchange rate differences on the principal and interest using a cross currency swap.

As of December 31, 2018 and 2017, the outstanding principal amount of Series G Debentures was NIS 468,000 (approximately $125,000 and $135,000 as of December 31, 2018 and December 31, 2017, respectively), with related hedging transactions net asset fair value of $4,951 and $16,455, respectively. The fair value decrease in 2018 and 2017 is attributed to the appreciation of the USD against the NIS (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, 2018, the Company was in compliance with all of the financial covenants under the indenture.

C. Jazz 2014 Notes

In March 2014, Jazz issued unsecured convertible senior notes due December 2018 (the "2014 Notes" or the "Jazz Notes").

As of December 31, 2017, approximately $58,000, principal amount of these 2014 Notes was outstanding. During 2018, all the holders of the 2014 Notes converted their notes to approximately 5.8 million ordinary shares of Tower, and as a result, as of December 31, 2018, no such Jazz Notes were outstanding.

(dollars in thousands, except per share data)

NOTE 11 - OTHER LONG-TERM DEBT

A. Composition:

	As of December 31, 2018	As of December 31, 2017
In JPY, see also D below	$ 100,118	$ 98,239
In U.S. Dollars, see also E below	--	40,000
Total long-term loan - principal amount	100,118	138,239
Deferred issuance costs	--	(1,077)
Total long-term loans	100,118	137,162
Capital leases - see Note 14C	47,195	15,854
Less - current maturities - see Note 14C	(10,814)	(52,661)
	$ 136,499	$ 100,355

B. Composition by Repayment Schedule of Loans:

	As of December 31, 2018						
	Interest rate	2019	2020	2021	2022	2023 and on	Total
In JPY	1.95%	$ --	$ --	$ 22,248	$ 22,248	$ 55,622	$100,118
Total outstanding principal amounts of loans		$ --	$ --	$ 22,248	$ 22,248	$ 55,622	$100,118

	As of December 31, 2017					
	Interest rate	2018	2019	2020	2021	Total
In U.S Dollars	Libor + 2.00%	$ 5,714	$ 11,429	$ 11,429	$ 11,428	$ 40,000
In JPY	Tibor + 1.65%-2.00%	43,915	32,747	21,577	--	98,239
Total outstanding principal amounts of loans		$ 49,629	$ 44,176	$ 33,006	$ 11,428	$138,239

For repayment schedule of capital lease agreements, see Note 14C.

C. Wells Fargo Credit Line

In December 2013, Jazz entered into an agreement with Wells Fargo Capital Finance, part of Wells Fargo & Company ("Wells Fargo"), for a five-year secured asset-based revolving credit line in the total amount of up to $70,000, maturing in December 2018.

In February 2018, Jazz and Wells Fargo signed an amendment to the credit line, under which the line is extended by five years, to mature in 2023, and the total amount remained at up to $70,000 (the "Jazz 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.

NOTE 11 - OTHER LONG-TERM DEBT (cont.)

C. Wells Fargo Credit Line (cont.)

The outstanding borrowing availability varies from time to time based on the levels of Jazz's eligible accounts receivable, eligible equipment, eligible inventories and other terms and conditions described in the Jazz Credit Line Agreement. The obligations of Jazz under the Jazz Credit Line Agreement are secured by a security interest on all the assets of Jazz. The Jazz Credit Line Agreement contains customary covenants and other terms, including customary events of default. If any event of default will occur, Wells Fargo may declare all borrowings under the facility due immediately and foreclose on the collateral. Jazz's obligations pursuant to the Jazz Credit Line Agreement are not guaranteed by Tower or any of its affiliates.

As of December 31, 2018, Jazz was in compliance with all of the covenants under the Jazz Credit Line Agreement.

As of December 31, 2018, borrowing availability under the Jazz Credit Line Agreement was approximately $70,000, of which approximately $1,000 was utilized through letters of credit.

As of December 31, 2018 and 2017, no loan amounts were outstanding under the Jazz Credit Line Agreement.

D. Loans to TPSCo from Japanese Financial Institutions

In June 2014, TPSCo entered into a long-term loan agreement with JA Mitsui Leasing, Ltd. and Bank of Tokyo (BOT) Lease Co., Ltd, under which it borrowed 8.8 billion Japanese Yen (outstanding principal amount was approximately $33,000 as of December 31, 2017).

In December 2015, TPSCo and JA Mitsui Leasing, Ltd., Sumitomo Mitsui Trust Bank Limited and Showa Leasing Co., Ltd. ("JP Banks") signed an asset-based loan agreement (the "ABL"), according to which TPSCo entered into a five year term loan agreement with the JP Banks under which TPSCo borrowed an additional amount of 8.5 billion Japanese Yen (outstanding principal amount was approximately $65,000 as of December 31, 2017).

In June 2018, TPSCo early repaid its two outstanding loans and refinanced them with 11 Billion JPY (approximately $100,000) new asset-based loan agreements with JA Mitsui Leasing, Ltd., Sumitomo Mitsui Trust Bank, Limited (SMTB) and Sumitomo Mitsui Banking Corporation (SMBC) ("JP Loan"). The JP Loan includes a grace period through 2021 and it carries a fixed interest rate of 1.95% per annum. Principal is payable in nine semiannual payments between 2021 and 2025. The JP Loan is secured mainly by a lien over the machinery and equipment of TPSCo located in Uozu and Tonami manufacturing facilities. Outstanding principal amount was approximately $100,000 as of December 31, 2018.

NOTE 11 - OTHER LONG-TERM DEBT (cont.)

D. Loans to TPSCo from Japanese Financial Institutions (cont.)

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 or any of its affiliates.

As of December 31, 2018, TPSCo was in compliance with all of the financial ratios and covenants under this JP Loan.

E. Loan to TJT

In July 2016, TJT entered into an asset based long-term loan agreement with JA Mitsui Leasing Capital Corporation ("JA Mitsui") in the total amount of $40,000. The loan carried annual interest of LIBOR+2.0% and was originally scheduled to be repaid between 2018 and 2021. The loan was secured mainly by a lien over TJT's machinery and equipment and an assignment of TJT's right to receive any amounts under its manufacturing agreement with Maxim.

The outstanding principal amount as of December 31, 2017 was $40,000.

In July 2018, TJT early repaid the entire outstanding amount of this loan to save financing cost.

F. Capital Lease Agreements

See Note 14C.

NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASURMENTS

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 protect against the volatility of future cash flows caused by changes in foreign exchange rates on NIS denominated expenses.

As of December 31, 2018, the fair value amounts of such exchange rate agreements were approximately $379 in a liability position presented in short-term liabilities with face value of $92,000.

NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASURMENTS (cont.)

A. Non-Designated Exchange Rate Transactions (cont.)

As of December 31, 2017, the fair value amounts of such exchange rate agreements were approximately $24 in an asset position presented in short-term assets with face value of $18,000. Changes in the fair values of such derivatives are presented in cost of revenues in the statements of operations.

As the functional currency of TPSCo is the JPY and part of TPSCo revenues are denominated in USD, TPSCo 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 USD denominated amounts. As of December 31, 2018 and 2017, the fair value amounts of such exchange rate agreements were $16 and $169, respectively, in a liability position presented in short-term liabilities with face value of $42,000 and $48,000, 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, derivative, trade receivables and government and other receivables. The Company's cash, deposits, marketable securities and derivative 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 doubtful accounts is determined with respect to those amounts which their collection determined to be doubtful. The Company performs ongoing credit evaluations of its customers.

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, 2018 and 2017. The fair value of debentures, based on quoted market prices as of December 31, 2018 and 2017, was approximately $127,000 and $345,000, respectively, compared to carrying amounts of approximately $120,000 and $182,000, for the above dates, respectively.

NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASURMENTS (cont.)

D. Cash Flow Hedge Gains (Losses)

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 to mitigate the risk arising from Series G Debentures denomination in NIS.

As of December 31, 2018, the fair value of the swap was $4,951 in an asset, net position, of which $1,771 presented in short-term liabilities and $6,722 presented in long-term assets. As of December 31, 2017, the fair value of the swap was $16,455 in an asset, net position, of which $1,550 presented in short-term liabilities and $18,005 presented in long-term assets.

As of December 31, 2018 and December 31, 2017, the effective portion of $1,329 and $2,758, respectively, were recorded in OCI, of which a loss of approximately $1,231 is expected to be reclassified into earnings during the twelve months ending December 31, 2019. For the years ended December 31, 2018 and December 31, 2017, the effect of the hedge on the Company’s results of operations was $11,787 loss and $11,654 income, respectively, and was recognized as financing expense, net to offset the effect of the rate difference related to 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.

Assets held for sale - 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. If quoted market prices are not available, the Company obtains fair value measurements 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. Changes in fair value of securities available for sale are recorded in other comprehensive income, net of income tax effect.

Level 2 Measurements

Over the counter derivatives - the Company uses the market approach using quotations from banks and other public information.

(dollars in thousands, except per share data)

NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASURMENTS (cont.)

E. Fair Value Measurements (cont.)

Level 3 Measurements

Recurring Fair Value Measurements Using the Indicated Inputs:

	December 31, 2018	Quoted prices in active market for identical liability (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cross currency swap - asset, net position	$ 4,951	$ --	$ 4,951	$ --
Marketable securities held for sale	135,227	135,227	--	--
Foreign exchange forward and cylinders - liability position	(395)	--	(395)	--
	$ 139,783	$ 135,227	$ 4,556	$ --

	December 31, 2017	Quoted prices in active market for identical liability (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cross currency swap - asset, net position	$ 16,455	$ --	$ 16,455	$ --
Marketable securities held for sale	113,168	113,168	--	--
Foreign exchange forward and cylinders - liability position	(169)	--	(169)	--
Foreign exchange forward and cylinders - asset position	24	--	24	--
	$ 129,478	$ 113,168	$ 16,310	$ --

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

Short-term and long-term deposits and marketable securities as of December 31, 2018 included short term deposits in the amount of $120,079, marketable securities in the amount of $135,850 (including accrued interest) and long-term bank deposit in the amount of $12,500; as of December 31, 2017, long-term deposits and marketable securities included marketable securities in the amount of $113,874 (including accrued interest) and long-term bank deposit in the amount of $12,500.

(dollars in thousands, except per share data)

NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASURMENTS (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, 2018:

	Amortized cost	Gross unrealized gains	Gross Unrealized losses	Estimated fair value
Corporate bonds	$ 111,639	$ 29	$ (2,029)	$ 109,639
U.S government bonds	5,444	21	--	5,465
Non-U.S government bonds	2,456	--	(33)	2,423
Municipal bonds	2,248	--	(13)	2,235
Money market fund	15,225	--	--	15,225
Certificate of deposits	248	--	(8)	240
	$ 137,260	$ 50	$ (2,083)	$ 135,227

The scheduled maturities of available-for-sale marketable securities as of December 31, 2018, were as follows:

	Amortized cost	Estimated fair value
Due within one year	$ 16,686	$ 16,661
Due after one year through five years	120,574	118,566
	$ 137,260	$ 135,227

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, 2017:

	Amortized cost	Gross unrealized gains	Gross Unrealized losses	Estimated fair value
Corporate bonds	$ 98,998	$ 25	$ (683)	$ 98,340
Non-U.S government bonds	2,730	--	(19)	2,711
Municipal bonds	11,950	15	(96)	11,869
Certificate of deposits	248	--	--	248
	$ 113,926	$ 40	$ (798)	$ 113,168

(dollars in thousands, except per share data)

NOTE 12 - FINANCIAL INSTRUMENTS AND FAIR VALUE MEASURMENTS (cont.)

F. Short-Term and Long-Term Deposits and Marketable Securities (cont.)

The scheduled maturities of available-for-sale marketable securities as of December 31, 2017, were as follows:

	Amortized cost	Estimated fair value
Due within one year	$ 7,688	$ 7,679
Due after one year through five years	106,238	105,489
	$ 113,926	$ 113,168

Investments with continuous unrealized losses for less than 12 months and 12 months or more and their related fair values as of December 31, 2018, were as indicated in the following tables:

	December 31, 2018					
	Investment with continuous unrealized losses for less than 12 months		Investments with continuous unrealized losses for 12 months or greater		Total Investments with continuous unrealized losses	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Corporate debentures	$ 19,716	$ (140)	$ 79,609	$ (1,889)	$ 99,325	$ (2,029)
Non-U.S government bonds	963	--	1,460	(33)	2,423	(33)
Municipal bonds	2,235	(13)	--	--	2,235	(13)
Certificate of deposits	--	--	240	(8)	240	(8)
Total	$ 22,914	$ (153)	$ 81,309	$ (1,930)	$ 104,223	$ (2,083)

Investments with continuous unrealized losses for less than 12 months and 12 months or more and their related fair values as of December 31, 2017, were as indicated in the following tables:

	December 31, 2017					
	Investment with continuous unrealized losses for less than 12 months		Investments with continuous unrealized losses for 12 months or greater		Total Investments with continuous unrealized losses	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Corporate debentures	$ 89,133	$ (683)	$ --	$ --	$ 89,133	$ (683)
Non-U.S government bonds	2,711	(19)	--	--	2,711	(19)
Municipal bonds	8,837	(96)	--	--	8,837	(96)
Total	$ 100,681	$ (798)	$ --	$ --	$ 100,681	$ (798)

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 $9,924 and $12,335, respectively, as of December 31, 2018.

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 $5,158, $5,059 and $ 4,345 for 2018, 2017 and 2016, 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% from 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 2018, 2017 and 2016 amounted to $6,700, $6,706 and $7,015, respectively.

(dollars in thousands, except per share data)

NOTE 13 - EMPLOYEE RELATED LIABILITIES (cont.)

B. Jazz Employee Benefit Plans

The following information provide the changes in 2018, 2017 and 2016 periodic expenses and benefit obligations due to the bargaining agreement effective December 19, 2009, entered into by Jazz 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,		
	2018	2017	2016
Net periodic benefit cost:			
Service cost	$ 10	$ 9	$ 12
Interest cost	73	69	85
Amortization of prior service costs	--	--	(12)
Amortization of net loss (gain)	(262)	(361)	(333)
Total net periodic benefit cost	$ (179)	$ (283)	$ (248)
Other changes in plan assets and benefits obligations recognized in other comprehensive income:			
Prior service cost for the period	$ --	$ --	$ --
Net loss (gain) for the period	(376)	317	(316)
Amortization of prior service costs	--	--	12
Amortization of net gain (loss)	262	361	333
Total recognized in other comprehensive income (loss)	$ (114)	$ 678	$ 29
Total recognized in net periodic benefit cost and other comprehensive income (loss)	$ (293)	$ 395	$ (219)
Weighted average assumptions used:			
Discount rate	3.80%	4.50%	4.80%
Expected return on plan assets	N/A	N/A	N/A
Rate of compensation increases	N/A	N/A	N/A
Assumed health care cost trend rates:			
Health care cost trend rate assumed for current year (Pre-65/Post-65)	8.30%/11.10%	7.20%/10.00%	6.75%/10.00%
Ultimate rate (Pre-65/Post-65)	4.50%/4.50%	4.50%/4.50%	4.50%/5.00%
Year the ultimate rate is reached (Pre-65/Post-65)	2027/2027	2025/2025	2025/2022
Measurement date	December 31, 2018	December 31, 2017	December 31, 2016

(dollars in thousands, except per share data)

NOTE 13 - EMPLOYEE RELATED LIABILITIES (cont.)

B. Jazz Employee Benefit Plans (cont.)

Post-Retirement Medical Plan (cont.)

Impact of one-percentage point change in assumed health care cost trend rates as of December 31, 2018:

	Increase	Decrease
Effect on service cost and interest cost	$ 4	$ (3)
Effect on post-retirement benefit obligation	$ 40	$ (32)

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,		
	2018	2017	2016
Change in medical plan related benefit obligation:			
Medical plan related benefit obligation at beginning of period	$ 1,936	$ 1,550	$ 1,781
Service cost	10	9	12
Interest cost	73	69	85
Benefits paid	(15)	(9)	(12)
Change in medical plan provisions	--	--	--
Actuarial loss (gain)	(376)	317	(316)
Benefit medical plan related obligation end of period	$ 1,628	$ 1,936	$ 1,550
Change in plan assets:			
Fair value of plan assets at beginning of period	$ --	$ --	$ --
Employer contribution	15	9	12
Benefits paid	(15)	(9)	(12)
Fair value of plan assets at end of period	$ --	$ --	$ --
Medical plan related net funding	$ (1,628)	$ (1,936)	$ (1,550)

(dollars in thousands, except per share data)

NOTE 13 - EMPLOYEE RELATED LIABILITIES (cont.)

B. Jazz Employee Benefit Plans (cont.)

Post-Retirement Medical Plan (cont.)

	As of December 31,		
	2018	2017	2016
Amounts recognized in statement of financial position:			
Current liabilities	$ (65)	$ (58)	$ (37)
Non-current liabilities	(1,563)	(1,878)	(1,513)
Net amount recognized	$ (1,628)	$ (1,936)	$ (1,550)
Weighted average assumptions used:			
Discount rate	4.50%	3.80%	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)	6.90%/13.10%	8.30%/11.10%	7.20%/10.00%
Health care cost trend rate assumed for next year (pre 65/ post 65 Non Medicare Advantage)	6.90%/7.90%	8.30%/11.10%	7.20%/10.00%
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	2027/2027	2025/2025

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
2019	$ 65
2020	64
2021	68
2022	66
2023	64
2024-2028	$ 395

Jazz Pension Plan

Jazz 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. Jazz uses a December 31 measurement date. Jazz funding policy is to make contributions that satisfy at least the minimum required contribution for IRS qualified plans.

(dollars in thousands, except per share data)

NOTE 13 - EMPLOYEE RELATED LIABILITIES (cont.)

B. Jazz Employee Benefit Plans (cont.)

Jazz Pension Plan (cont.)

The components of the change in benefit obligation, the change in plan assets and funded status for Jazz's pension plan are as follows:

	Year ended December 31,		
	2018	2017	2016
Net periodic benefit cost:			
Interest cost	$ 749	$ 831	$ 841
Expected return on plan assets	(1,427)	(1,236)	(1,154)
Amortization of prior service costs	3	3	3
Amortization of net loss (gain)	--	55	34
Total net periodic benefit cost	$ (675)	$ (347)	$ (276)
Other changes in plan assets and benefits obligations recognized in other comprehensive income:			
Prior service cost for the period	$ --	$ --	$ --
Net loss (gain) for the period	(231)	(1,303)	736
Amortization of prior service costs	(3)	(3)	(3)
Amortization of net gain (loss)	--	(55)	(34)
Total recognized in other comprehensive income (loss)	$ (234)	$ (1,361)	$ 699
Total recognized in net periodic benefit cost and other comprehensive income (loss)	$ (909)	$ (1,708)	$ 423
Weighted average assumptions used:			
Discount rate	3.70%	4.30%	4.60%
Expected return on plan assets	6.20%	6.20%	6.20%
Rate of compensation increases	N/A	N/A	N/A

	Year ended December 31,		
	2018	2017	2016
Estimated amounts that will be amortized from accumulated other comprehensive income in the next fiscal year ending :			
Prior service cost	$ 3	$ 3	$ 3
Net actuarial loss	$ --	$ --	$ 54

(dollars in thousands, except per share data)

NOTE 13 - EMPLOYEE RELATED LIABILITIES (Cont.)

B. Jazz Employee Benefit Plans (Cont.)

Jazz Pension Plan (cont.)

The components of the change in benefit obligation, change in plan assets and funded status for Jazz's pension plan are as follows:

	Year ended December 31,		
	2018	2017	2016
Change in benefit obligation:			
Benefit obligation at beginning of period	$ 20,629	$ 19,672	$ 18,605
Interest cost	749	831	841
Benefits paid	(607)	(548)	(496)
Change in plan provisions	--	--	--
Actuarial loss (gain)	(1,792)	674	722
Benefit obligation end of period	$ 18,979	$ 20,629	$ 19,672
Change in plan assets:			
Fair value of plan assets at beginning of period	$ 23,235	$ 19,871	$ 18,526
Actual return on plan assets	(133)	3,212	1,141
Employer contribution	175	700	700
Benefits paid	(607)	(548)	(496)
Fair value of plan assets at end of period	$ 22,670	$ 23,235	$ 19,871
Funded status	$ 3,691	$ 2,606	$ 199
Amounts recognized in statement of financial position:			
Non-current assets	$ 3,691	$ 2,606	$ 199
Non-current liabilities	--	--	--
Net amount recognized	$ 3,691	$ 2,606	$ 199
Weighted average assumptions used:			
Discount rate	4.40%	3.70%	4.30%
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
2019	$ 823
2020	922
2021	988
2022	1,055
2023	1,118
2024-2028	$ 6,044

(dollars in thousands, except per share data)

NOTE 13 - EMPLOYEE RELATED LIABILITIES (cont.)

B. Jazz Employee Benefit Plans (cont.)

Jazz Pension Plan (cont.)

The plan's assets measured at fair value on a recurring basis consisted of the following as of December 31, 2018:

	Level 1	Level 2	Level 3
Investments in mutual funds	$ --	$ 22,669	$ --
Total plan assets at fair value	$ --	$ 22,669	$ --

The plan's assets measured at fair value on a recurring basis consisted of the following as of as of December 31, 2017:

	Level 1	Level 2	Level 3
Investments in mutual funds	$ -	$ 23,235	$ -
Total plan assets at fair value	$ -	$ 23,235	$ -

Jazz's pension plan weighted average asset allocations on December 31, 2018, by asset category are as follows:

Asset Category	December 31, 2018	Target allocation 2019
Equity securities	19%	20%
Debt securities	81%	80%
Total	100%	100%

Jazz'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 Jazz in accordance with the policy goals. Actual allocation to each asset category fluctuates and may not be within the target 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.

NOTE 14 - COMMITMENTS AND CONTINGENCIES

A. Liens

(1) Loans, Bonds and Capital Leases

For liens relating to Jazz Credit Line Agreement, see Note 11C. For liens under TPSCo 2018 JP Loan agreement, see Note 11D. For liens under the capital lease agreements, see Note 14C. For liens under Bond G indenture, see Note 10B.

(2) Approved Enterprise Status

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. 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.

C. Leases

Tower's administrative offices and corporate headquarters, Fab 1 and Fab 2 manufacturing operations are located in a building complex situated in an industrial park in Migdal Ha'emek, in the northern part of Israel. The premises where the administrative offices and Fab 1 are located are under a long-term lease from the ILA, which expires in 2032. Tower has no obligation for lease payments related to this lease through the year 2032. Tower entered into a long-term lease agreement with the ILA relating to Fab 2 for a period ending in 2049. The lease payments through 2049 relating to this lease have been paid in advance and are expensed through the operational lease period.

Tower occupies certain other premises under various operating leases. The obligations under such leases were not material as of December 31, 2018.

Jazz leases its fabrication facilities under operational lease contracts that may be extended until 2027, through the exercise of an option at Jazz's sole discretion. In 2015, Jazz exercised its first option to extend the lease term from 2017 to 2022, while maintaining the option to extend the lease term at its sole discretion from 2022 to 2027. In the amendments to its leases, (i) Jazz 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 Jazz and the landlord, including certain noise abatement actions at the fabrication facility. The landlord has made claims that Jazz's noise abatement efforts are not adequate under the terms of the amended lease. Jazz does not agree and is disputing these claims.

NOTE 14 - COMMITMENTS AND CONTINGENCIES (Cont.)

C. Leases (cont.)

Aggregate rental expenses under Jazz operating leases were approximately $2,800, $2,800 and $2,800 for the years ended December 31, 2018, 2017 and 2016, respectively. Future minimum payments for Jazz's non-cancelable operating building leases are approximately $2,800 for 2019 and approximately $2,400 for each of the years thereafter.

In 2014, TPSCo entered into a five-year operational lease agreement with Panasonic to lease the building and facilities of its three fabs in Hokuriko, Japan for the manufacturing business of TPSCo. The parties agreed to have good faith discussions regarding the terms and conditions for extension of the term of the lease agreement, taking into account the terms provided thereunder prior to the expiration thereof and the fair market prices existing at the time of the extension. Future minimum payment under TPSCo's non-cancelable operating building and facilities lease is $3,600 for the first quarter of 2019. The terms of the lease extension are currently being negotiated with Panasonic to be in effect from the second quarter of 2019.

In addition, certain of the Company's subsidiaries entered into capital lease agreements for certain machinery and equipment required at the fabrication facilities for a period of up to 4 years with an option to buy each or all of the machinery and equipment after 3 years from the start of the lease period at 40% of their original value. The lease agreements contain annual interest rate of 1.85% and the assets under the lease agreements are pledged to JA Mitsui until the time at which the respective subsidiary will buy the assets. The obligations under the capital lease agreement are guaranteed by Tower except for TPSCo's obligations under its capital lease agreements.

As of December 31, 2018 and 2017, the outstanding capital lease liability for certain machinery and equipment required at the fabrication facilities was $47,195 and $15,854 respectively, of which $10,814 and $3,032 were included in current maturities, respectively.

As of December 31, 2018, the lease payments under capital leases for certain machinery and equipment required at the fabrication facilities, are $10,814 for the year ending December 31, 2019, $10,783 for the year ending December 31, 2020, $12,537 for the year ending December 31, 2021, $6,492 for the year ending December 31, 2022 and $6,569 for the year ending December 31, 2023.

D. Other Agreements

The Company enters from time to time, in the ordinary course of business, 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 14 - COMMITMENTS AND CONTINGENCIES (Cont.)

E. Environmental Affairs

The Company's operations are subject to a variety of laws and state and governmental regulations relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in the production processes. Operating permits and licenses are required for the operation of the Company's facilities and these permits and licenses are subject to revocation, modification and renewal. Government authorities have the power to enforce compliance with these regulations, permits and licenses. As of the approval date of the financial statements, the Company is not aware of any noncompliance with the terms of said permits and licenses.

F. An engagement in relation to a new fabrication facility planned to be built in China

In 2017 and 2018, the Company, Nanjing Development Zone, Tacoma Technology Ltd. and Tacoma (Nanjing) Semiconductor Technology Co., Ltd. (collectively known as "Tacoma"), signed agreements regarding a new 8-inch fabrication facility planned to be established in Nanjing, China. According to the terms therein, it was agreed that the Company will provide technological expertise together with operational and integration consultation, at terms and milestones to be further agreed to by the parties and may invest in the project to be a minority stakeholder. The framework agreement further specifies capacity allocation to the Company of up to 50% of the targeted 40,000 wafers per month fab capacity, in order to provide the Company with additional manufacturing capability and capacity.

During 2017, the Company received $18,000 (net of taxes) for technological licenses, consultation and other services it provided during 2017, and in February 2019 it received an additional $9,000 (net of taxes) for technological licenses, consultation and other services it provided in 2018.

G. Other Commitments

Receipt of certain research and development grants from the government of Israel is subject to various conditions. In the event Tower fails to comply with such conditions, Tower may be required to repay all or a portion of the grants received. Tower believes it has been in full compliance with the conditions through December 31, 2018.

H. Dismissed Class Action

In January 2016, a short-selling focused firm issued a short sell thesis report which the Company believes contains false and misleading information about the Company's strategy, business model and financials. Following this short sell thesis report, shareholder class actions were filed in the US and Israel against the Company, certain officers, its directors and/or its external auditor.

NOTE 14 - COMMITMENTS AND CONTINGENCIES (Cont.)

H. Dismissed Class Action (cont.)

This short sell thesis analyst acknowledged at the time of the report that he shall be assumed to be in a short position in Tower's shares. In July 2016, the US court-appointed lead plaintiff voluntarily withdrew the action and the US court approved the voluntary dismissal of the class action in the US. In February 2018, the Israeli court granted the Company's motion to dismiss as the Israeli plaintiff did not meet the required burden of proof. The plaintiff filed a request to appeal the Tel-Aviv district court's decision and in October 2018, the Israeli Supreme Court reaffirmed the district court's ruling and denied the plaintiff's request for appeal.

NOTE 15 - SHAREHOLDERS' EQUITY

A. Description of Ordinary Shares

As of December 31, 2018, Tower had 150 million authorized ordinary shares, par value NIS 15.00 each, of which approximately 105 million were issued and 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.

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 particular 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) vest over one to four year period according to various vesting schedules, and (iii) are not exercisable beyond seven or ten years from the grant date.

Except for those share incentive plans described below, as of December 31, 2018 and December 31, 2017, respectively, there were approximately 26 thousands and 57 thousands, respectively, options outstanding under the Company's share incentive plans (the "Old Plans"). No further options may be granted under Old Plans.

NOTE 15 - SHAREHOLDERS' EQUITY (cont.)

B. Equity Incentive Plans (cont.)

(2) Tower's 2013 Share Incentive Plan (the "2013 Plan")

In 2013, the Company adopted a new share incentive plan for directors, officers and employees of the Company. Options granted under the 2013 Plan bear an exercise price, which equals an average of the 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 2018 and 2017, a total of 978 thousands and 819 thousands, respectively, of RSUs, 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 is amortizing it over the applicable vesting period.

In July 2018, the Company's shareholders approved the grant of the following Restricted Stock Units ("RSUs") to the Company's CEO and members of the Board of Directors under the Company's 2013 Share Incentive Plan: (i) 107 thousands time vested RSUs and 72 thousands performance based RSUs to the CEO, which RSUs will vest linearly over a three-year period, 33% at the end of each year of the 3 years following the grant date, for a compensation value of $3,900; and, in addition, 50 thousands performance based RSUs vesting over three years, with 65% vesting at the first anniversary of the grant, additional 25% at the second anniversary and the remaining at the third anniversary for an additional compensation value of $1,100; (ii) 14 thousands 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 of the 3 years following the grant date; and (iii) 3 thousands time vested RSUs to each of the 8 members of the Board of Directors (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 end of the first anniversary of the date of grant and 50% on the second anniversary of the date of grant.

In June 2017, the Company's shareholders approved the following equity awards to the Company's CEO, chairman of the Board and board directors under the 2013 Share Incentive Plan: (i) 85 thousands time vested RSUs and 97 thousands performance-based RSUs to the CEO, for a total compensation value of $4,500; (ii) 12 thousands time vested RSUs to the chairman of the board of directors for a total compensation value of $300; and (iii) 3 thousands time vested RSUs to each of the members of the board of directors (other than to the Chairman and the CEO), for a total compensation value of $600.

(dollars in thousands, except per share data)

NOTE 15 - SHAREHOLDERS' EQUITY (cont.)

B. Equity Incentive Plans (cont.)

(2) Tower's 2013 Share Incentive Plan (the "2013 Plan") (cont.)

As of December 31, 2018, approximately 483 thousands options and approximately 1.6 million RSUs were outstanding under the 2013 Plan. As of December 31, 2017, approximately 523 thousands options and approximately 1.2 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) Summary of the Status of all the Company's Employees' and Directors' Share Incentive Plans

i. Share Options awards:

	2018		2017		2016	
	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	580,185	$ 9.64	2,278,089	$ 9.92	5,878,270	$ 6.84
Granted	--	--	--	--	207,890	12.19
Exercised	(70,271)	10.19	(1,611,489)	9.27	(3,649,754)	4.82
Terminated	(921)	9.82	(77,292)	25.89	(97,063)	21.34
Forfeited	(500)	4.42	(9,123)	8.06	(61,254)	7.25
Outstanding as of end of year	508,493	9.58	580,185	9.64	2,278,089	9.92
Options exercisable as of end of year	485,579	$ 9.46	459,662	$ 8.51	1,606,983	$ 10.19

ii. RSU awards:

	2018		2017		2016	
	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	1,245,889	$ 21.29	1,009,184	$ 14.62	773,200	$ 15.11
Granted	977,667	20.80	818,856	24.88	359,643	12.83
Converted	(602,423)	17.86	(553,241)	14.71	(86,847)	11.45
Forfeited	(21,837)	22.11	(28,910)	16.42	(36,812)	14.73
Outstanding as of end of year	1,599,296	$ 22.27	1,245,889	$ 21.29	1,009,184	$ 14.62

(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, 2018:

Outstanding				Exercisable	
Range of exercise prices	Number outstanding	Weighted average remaining contractual life (in years)	Weighted average exercise price	Number exercisable	Weighted average exercise price
$ 4.42 - 17.25	508,493	3.08	$ 9.58	485,579	$ 9.46

	Year ended December 31,		
	2018	2017	2016
The intrinsic value of options exercised	$ 1,416	$ 26,031	$ 40,314
The original fair value of options exercised	$ 302	$ 7,202	$ 16,711

	Year ended December 31,		
	2018	2017	2016
The intrinsic value of converted RSU's	$ 15,840	$ 12,996	$ 1,177
The original fair value of converted RSU's	$ 10,761	$ 8,138	$ 994

Stock-based compensation expenses were recognized in the Statement of Operations as follows:

	Year ended December 31,		
	2018	2017	2016
Cost of goods	$ 3,141	$ 3,084	$ 3,920
Research and development, net	2,533	2,555	2,119
Marketing, general and administrative	6,987	6,010	3,367
Total stock-based compensation expense	$ 12,661	$ 11,649	$ 9,406

(5) Weighted Average Grant-Date Fair Value of Options Granted to Employees

The weighted average grant-date fair value of the options granted during 2016 to employees and directors amounted to $4.20 per option (no options were granted in 2017 and 2018). The Company utilizes the Black-Scholes model.

(dollars in thousands, except per share data)

NOTE 15 - SHAREHOLDERS' EQUITY (cont.)

B. Equity Incentive Plans (cont.)

(5) Weighted Average Grant-Date Fair Value of Options Granted to Employees (cont.)

The Company estimated the fair value, utilizing the following assumptions for the year 2016 (all in weighted averages):

	2016
Risk-free interest rate	0.9%-1.3%
Expected life of options	4.60 years
Expected annual volatility	47%-48%
Expected dividend yield	None

Risk free interest rate is based on yield curve rates published by the U.S. Department of Treasury.
Expected life of options is based upon historical experience and represents the period of time that options granted are expected to be outstanding.
Expected annual volatility is based on the volatility of Tower's ordinary share prior to the options grant for the term identical to expected life.

C. Israeli Banks' Capital Notes and Warrants

All issued and outstanding equity equivalent capital notes convertible into approximately 1.2 million ordinary shares as of December 31, 2018, have no voting rights, no maturity date, no dividend rights, are not tradable, are not registered, do not carry interest, are not linked to any index and are not redeemable. The equity equivalent capital notes are classified in shareholders' equity. As of December 31, 2018, Bank Ha'poalim was the sole holder of such capital notes.

As of December 31, 2018, all the Israeli Banks' warrants expired.

D. Treasury Stock

During 1999 and 1998, the Company funded the purchase by a trustee of an aggregate of 86,667 of Tower's ordinary shares. These shares are classified as treasury shares.

E. Dividend Restriction

Tower is subject to the restrictions under the Israeli Companies Law, 1999. In addition, Tower is subject to limitations under Series G Debentures indenture, which enables distribution of dividends subject to satisfying certain financial ratios.

F. Convertible Debentures

With regard to convertible debentures, see Note 10C.

(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,		
	2018	2017	2016
USA	52%	52%	49%
Japan	34	32	36
Asia *	10	12	12
Europe	4	4	3
Total	100%	100%	100%

* Represents revenues from individual countries of less than 10% each.

The basis of attributing revenues from external customers to geographic area is based on the headquarter 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 Jazz's and TJT'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,	
	2018	2017
Israel	$ 215,419	$ 218,810
United States	239,462	214,393
Japan	202,353	201,921
Total	$ 657,234	$ 635,124

C. Major Customers - as Percentage of Net Accounts Receivable Balance

Accounts receivable from significant customers representing 10% or more of the net accounts receivable balance consist of two such customers, representing 13% and 10% of the net accounts receivable balance as of December 31, 2018, and one such customer representing 13% of the net accounts receivable balance as of December 31, 2017.

(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,		
	2018	2017	2016
Customer A	33%	30%	35%
Customer B	7	12	12
Other customers *	16	15	14

* Represents sales to two customers accounted for 7% and 9% of sales during 2018, to two customers accounted for 7% and 8% of sales during 2017, and to two customers accounted for 5% and 9% of sales during 2016.

NOTE 17 - FINANCING EXPENSE, NET

Financing expense, net consists of the following:

	Year ended December 31,		
	2018	2017	2016
Interest expense	$ 10,610	$ 12,623	$ 13,146
Interest income	(10,762)	(4,783)	(1,289)
Jazz Notes amortization	5,010	4,230	3,571
Changes in fair value (total level 3 changes in fair value of bank loans)	--	--	7,900
Series G Debentures amortization, related rate differences and hedging results	3,589	2,738	1,901
Exchange rate differences	1,064	6	(3,768)
Bank fees and others	3,673	633	2,888
	$ 13,184	$ 15,447	$ 24,349

(dollars in thousands, except per share data)

NOTE 18 - INCOME TAXES

A. Tower Approved Enterprise Status and 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 ("Investments Law").

Tower, as an 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%.

Income not eligible for Preferred Enterprise benefits is taxed at the regular corporate tax rate of 23% for 2018, 24% for 2017 and 25% for 2016.

B. Income Tax Provision

The Company's income tax provision is as follows:

	Year ended December 31,		
	2018	2017	2016
Current tax expense:			
Local	$ 2,164	$ 3,622	$ --
Foreign (*)	9,273	6,070	5,948
Deferred tax expense (benefit):			
Local (see F below)	9,316	(82,370)	--
Foreign(*) (see E below)	(14,815)	(27,210)	(4,516)
Income tax expense (benefit)	$ 5,938	$ (99,888)	$ 1,432

	Year ended December 31,		
	2018	2017	2016
Profit before taxes:			
Domestic	$ 142,831	$ 198,008	$ 168,668
Foreign (*)	(3,514)	3,760	41,930
Total profit before taxes	$ 139,317	$ 201,768	$ 210,598

(*) Foreign are amounts related to Tower's Japanese and US subsidiaries.

(dollars in thousands, except per share data)

NOTE 18 - 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, 2018	2017
Deferred tax asset and liability - long-term: (**)		
Deferred tax assets:		
Net operating loss carryforward	$ 87,325	$ 96,443
Employees benefits and compensation	4,914	4,891
Accruals and reserves	4,738	3,546
Research and development	12,292	10,528
Others	3,615	2,935
	112,884	118,343
Valuation allowance, see F below	(5,834)	(5,807)
Deferred tax assets	$ 107,050	$ 112,536
Deferred tax liabilities:		
Depreciation and amortization	(82,001)	(77,092)
Gain on TPSCo acquisition	(1,240)	(15,957)
Others	(750)	(559)
Deferred tax liabilities	$ (83,991)	$ (93,608)
Presented in long term deferred tax assets	$ 73,460	$ 82,852
Presented in long term deferred tax liabilities	$ (50,401)	$ (63,924)

(*) Deferred tax assets and liabilities relating to Tower for the years 2018 and 2017 are computed based on the Israeli preferred enterprise tax rate of 7.5%.

(**) In 2017, the Company adopted ASU 2015-17 regarding classification of deferred taxes, prospectively, following which, effective 2017, deferred taxes are not presented as current assets.

(***) 2017 amounts are presented to conform to 2018 presentations.

(dollars in thousands, except per share data)

NOTE 18 - INCOME TAXES (cont.)

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, 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	$	14,783

	Unrecognized tax benefits	
Balance at January 1, 2017	$	8,969
Additions for tax positions		8,753
Reduction of prior years' provision		(2,436)
Balance at December 31, 2017	$	15,286

	Unrecognized tax benefits	
Balance at January 1, 2016	$	13,538
Additions for tax positions of current year		157
Expiration of prior years' provision due to TJP closure		(6,472)
Additions for tax positions of prior years		779
Translation differences		967
Balance at December 31, 2016	$	8,969

E. Effective Income Tax Rates

In December 2017, the Tax Cut and Jobs Act (the "Act") was signed into law, which enacts significant changes to U.S. federal corporate tax and related laws. Some of the provisions of the Act affecting corporations include, but are not limited to: (i) a reduction of the U.S. Federal corporate income tax rate from 35% to 21%; (ii) limiting the interest expense deduction; (iii) expensing of cost of acquired qualified property; (iv) elimination of the domestic production activities deduction; (v) elimination of Alternative Minimum Tax ("AMT") and (vi) refundability of AMT credits, which were generated prior to the Act, in 2018 and thereafter.

Tower US Holdings has completed analysis of the Act's income tax effects. In total, Tower US Holdings recorded in the twelve months ended December 31, 2017 a non-cash income tax benefit in the amount of approximately $13,000 for Act-related impacts. Upon further analysis of certain aspects of the Act and refinement of the calculations during the 12 months ending December 31, 2018, Tower US Holdings found no other adjustment was necessary.

(dollars in thousands, except per share data)

NOTE 18 - INCOME TAXES (cont.)

E. Effective Income Tax Rates (cont.)

The reconciliation of the statutory tax rate to the effective tax rate is as follows:

	Year ended December 31,		
	2018	2017	2016
Tax expense computed at statutory rates, see (*) below	$ 32,044	$ 48,433	$ 52,650
Effect of tax rate change on deferred tax liabilities, net(**)	(478)	(16,078)	--
Effect of different tax rates in different jurisdictions and Preferred Enterprise Benefit	(23,150)	(33,298)	(4,772)
Gain on acquisition	--	--	(10,450)
Tax benefits for which deferred taxes were not recorded, see F below	--	(15,103)	(23,489)
Change in Valuation allowance, see F below	(962)	(82,772)	(6,212)
Permanent differences and other, net	(1,516)	(1,070)	(6,295)
Income tax expense (benefit)	$ 5,938	$ (99,888)	$ 1,432

(*) The tax expense (benefit) was computed based on Tower's regular corporate tax rate of 23% for 2018, 24% for 2017 and 25% for 2016.
(**) Reduction in tax rates due to the U.S. Tax Reform and reduction in income tax rates in Japan.

F. Net Operating Loss Carryforward

As of December 31, 2018, Tower had net operating loss carryforward for tax purposes of approximately $1,100,000, which may be carried forward indefinitely. For the year ended December 31, 2016, Tower recorded a valuation allowance for deferred tax assets (see C above) as it was unable to conclude that it is more-likely-than-not that such deferred tax assets would be realized. As of December 31, 2017, Tower concluded that realization of net deferred assets is more likely than not as required by ASC 740-10-30-5(e). Tower considered both positive and negative factors. Positive factors include the Israeli accumulated profit before tax for 2017 and recent years, projections for taxable income in Israel in the near term and the unlimited time for the utilization of the losses carryforward. The negative factors considered include Tower's history of operating losses, the uncertainty in estimating the future generation of sufficient taxable income in Israel to utilize the loss carryforward of approximately $1,100,000, taking into account that it operates in the cyclical industry of semiconductors and other trends affecting Tower's ability to sustain its current level of income. Weighing all the above, Tower concluded in 2017 that it is more likely than not that taxable income will be generated and released entirely the valuation allowance related to the Israeli accumulated losses.

NOTE 18 - INCOME TAXES (cont.)

F. Net Operating Loss Carryforward (cont.)

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. Jazz 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 Jazz Semiconductor. The second "change in ownership" event occurred in September 2008, upon Tower's acquisition of Jazz. Jazz 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.

As of December 31, 2018, Tower US Holdings had federal net operating loss carryforward of approximately $29,500 that will begin to expire in 2022, unless previously utilized.

Tower US Holdings made a Water's Edge election to file its 2016 California return and the next six years of California returns on this basis. As such, Tower US Holdings will not be filing on a world-wide basis for the foreseeable future. As a result of making the election, Tower US Holdings has re-computed the net operating loss carryforward for California as if it had been filing on a Water's Edge basis. This resulted in a reduction in the amount of California net operating loss carryforward of approximately $107,000 as of December 31, 2017. There was no impact to the tax expense since Tower US Holdings previously maintained a full valuation allowance on its California net deferred tax assets.

As of December 31, 2018, Tower US Holdings had California state net operating loss carryforward of approximately $7,300. The state tax loss carry forward begin to expire in 2028, unless previously utilized.

As of December 31, 2018 and 2017, 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 1999-2013 are deemed final.

Tower US Holdings is filing the consolidated tax return including Jazz and TJT. Tower US Holdings and its subsidiaries are subject to U.S. federal income tax as well as income tax in multiple states.

With few exceptions, Tower US Holdings is no longer subject to U.S. federal income tax examinations before 2015 and state and local income tax examinations before 2014. 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.

TPSCo possesses final tax assessments through the year 2016.

(dollars in thousands, except per share data)

NOTE 19 - RELATED PARTIES BALANCES AND TRANSACTIONS

A. Balances

	The nature of the relationships involved	As of December 31, 2018		As of December 31, 2017	
Long-term investment	Equity investment in a limited partnership	$	110	$	66

B. Transactions

	Description of the transactions	Year ended December 31, 2018		2017		2016	
General and Administrative expense	Directors' fees and reimbursement to directors	$	736	$	719	$	639
Other income (expense)	Equity income (loss) from a limited Partnership	$	44	$	29	$	(13)

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The information contained in this section should be read in conjunction with our consolidated financial statements as of December 31, 2018 and 2017 and related notes for the years then ended. Our financial statements have been prepared in accordance with generally accepted accounting principles in United States ("US GAAP").

Results of Operations

The following table sets forth certain statement of operations data as a percentage of total revenues for the periods indicated:

	Year ended December 31,	
	2018	2017
Revenues	100%	100%
Cost of revenues	77.5	74.5
Gross profit	22.5	25.5
Research and development expense	5.6	4.9
Marketing, general and administrative expense	5.0	4.8
Operating profit	11.9	15.8
Financing expense, net	(1.0)	(1.1)
Other expense, net	(0.2)	(0.2)
Profit before income tax	10.7	14.5
Income tax benefit (expense), net	(0.5)	7.2
Net profit	10.2	21.7
Net loss (income) attributable to the non-controlling interest	0.2	(0.3)
Net profit attributable to the company	10.4%	21.4%

The following table sets forth certain statement of operations data for the periods indicated (in thousands):

	Year ended December 31,	
	2018	2017
Revenues	$ 1,304,034	$ 1,387,310
Cost of revenues	1,011,087	1,033,005
Gross profit	292,947	354,305
Research and development expense	73,053	67,664
Marketing, general and administrative expense	64,951	66,799
Operating profit	154,943	219,842
Financing expense, net	(13,184)	(15,447)
Other expense, net	(2,442)	(2,627)
Profit before income tax	139,317	201,768
Income tax benefit (expense), net	(5,938)	99,888
Net profit	133,379	301,656
Net loss (income) attributable to the non-controlling interest	2,200	(3,645)
Net profit attributable to the company	$ 135,579	$ 298,011

Year ended December 31, 2018 compared to year ended December 31, 2017

Revenues. Revenues for the year ended December 31, 2018 were $1,304 million, as compared to $1,387 million for the year ended December 31, 2017. While our average selling price per layer didn't change in 2018 as compared to 2017, our revenues were 6% lower, mainly due to lower number of layers shipped by the company during 2018, as compared with 2017.

Cost of Revenues. Cost of revenues for the year ended December 31, 2018 amounted to $1,011 million as compared to $1,033 million for the year ended December 31, 2017. The decrease of $22 million in manufacturing cost is mainly attributed to lower amount of variable costs required to be spent to manufacture lower volume of layers ordered, manufactured and shipped by the company.

Gross Profit. Gross profit for the year ended December 31, 2018 amounted to $293 million as compared to $354 million for the year ended December 31, 2017. The decrease in gross profit resulted directly from the 6% or $83 million revenue reduction described above, partially offset by the $22 million cost reduction described above.

*Research and Developmen*t. Research and development expense for the year ended December 31, 2018, amounted to $73.1 million as compared to $67.7 million recorded in the year ended December 31, 2017, an 8% increase, which reflects our focus to enhance our mid-term and long-term products' funnel, technology capabilities and future design wins.

Marketing, General and Administrative. Marketing, general and administrative expense for the year ended December 31, 2018 amounted to $65.0 million, as compared to $66.8 million recorded in the year ended December 31, 2017, both representing 5% of revenues.

Operating Profit. Operating profit for the year ended December 31, 2018 amounted to $154.9 million as compared to $219.8 million for the year ended December 31, 2017. The $64.9 million decrease in operating profit resulted mainly from the $61.4 million reduction in gross profit described above.

Financing Expense, Net. Financing expense, net for the year ended December 31, 2018 amounted to $13.2 million as compared to financing expense, net of $15.4 million for the year ended December 31, 2017. The main reason for the decrease in financing expense, net was a higher level of interest income we earned from our higher balance of interest-bearing bank deposits and our investment in marketable securities.

Other expense, Net. Other expense, net for the year ended December 31, 2018 amounted to $2.4 million as compared with other expense of $2.6 million in the year ended December 31, 2017.

Income Tax Benefit (Expense), Net. Income tax benefit (expense), net for the year ended December 31, 2018 amounted to $5.9 million expense, net as compared to $99.9 million income tax benefit, net in the year ended December 31, 2017. Income tax benefit, net for the year ended December 31, 2017 included mainly (i) $82 million income tax benefit resulted from the release of valuation allowance with regards to the net operating loss carryforward in the Israeli parent company (Tower Semiconductor Ltd), since it was concluded that it is more-likely-than-not that such deferred tax assets will be realized, (see also note 18F to the annual consolidated financial statements) and (ii) $13 million income tax benefit resulted from the US Tax Cut and Jobs Act which has been signed into law in December 2017, following which, among others, there was a reduction in federal income tax rates from 35% to 21% (see also Note 18E to the annual consolidated financial statements). Income tax expense, net for the year ended December 31, 2018, included a 7.5% tax expense provision resulted from the profits generated in the Israeli parent company following the release of the valuation allowance as described above.

Net Profit. Net profit for the year ended December 31, 2018 amounted to $135.6 million as compared to a net profit of $298.0 million for the year ended December 31, 2017. The decrease in net profit in the amount of $162.4 million was mainly due to the decrease of $105.8 million in income tax benefit, net as explained above and the decrease of $64.9 million in operating profit as described above.

Impact of Currency Fluctuations

The Company currently operates in three different regions: Japan, the United States and Israel. The functional currency of the United States and Israel entities is the US dollar (“USD”). The functional currency of our subsidiary in Japan is the Japanese Yen (“JPY”). Our expenses and costs are denominated mainly in USD, JPY and New Israeli Shekels (“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, the Company is exposed to the risk of currency exchange rate fluctuations in Israel and Japan.

The USD costs 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, 2018, the USD appreciated against the NIS by 8.1%, as compared to 9.8% depreciation during the year ended December 31, 2017.

The fluctuation of USD against the NIS can affect our results of operations. Appreciation of the NIS has the effect of increasing the cost, in USD terms, of some of the Company’s Israeli purchases and labor NIS denominated costs, which may lead to erosion in the profit margins. The Company uses foreign currency cylinder transactions to hedge a portion of this currency exposure to be contained within a pre-defined fixed range. In addition, the Company executed swap-hedging transactions to hedge the exposure to the fluctuation of USD against the NIS to the extent it relates to 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, as the impact on the revenues will mostly be offset by the impact on the expenses. In order to mitigate a portion of the net exposure to the USD / JPY exchange rate, the Company has engaged in cylinder hedging transactions to contain the currency’s fluctuation within a pre-defined fixed range. During the year ended December 31, 2018, the USD depreciated against the JPY by 2.4%, as compared to 3.8% depreciation during the year ended December 31, 2017. 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.

Liquidity and Capital Resources

As of December 31, 2018, the Company had an aggregate amount of $385.1 million in cash and cash equivalents, as compared to $446.0 million as of December 31, 2017. The main cash activities during the year ended December 31, 2018 were: $312.9 million positive cash flow generated from operating activities; $169.7 million investment in property and equipment, net of proceeds received from sales of equipment; $158.5 million investment in short-term deposits, marketable securities and other assets, net; $142.3 million debt repayment and $99.0 million debt received.

As of December 31, 2018, the outstanding principal amount of bank loans was $100.1 million, and the aggregate principal amount of debentures was $124.9 million, with related hedging transactions net asset fair value of $5.0 million. As of December 31, 2018, we had a carrying amount of $100.1 million of bank loans and $120.2 million of debentures in our balance sheet, all presented as long term liabilities.

In February 2018, Well Fargo bank and Jazz Semiconductor, the Company’s U.S fully owned subsidiary, signed a 5-year extension of the existing credit line agreement, which has been originally set to mature in December 2018, under which Jazz will be able to drawdown up to $70 million through February 2023. Any such drawdown will bear an interest rate is at a rate equal to, at lender’s option, either the lender’s prime rate plus 0.0% to 0.5% per annum or the LIBOR rate plus 1.25% to 1.75% per annum. Outstanding loans borrowed under this line as of December 31, 2018 were $0 and borrowing availability under the line was $70 million, of which approximately $1 million was utilized through letters of credit.

In June 2018, TPSCo early repaid its outstanding loans originally due 2018-2020, which carried variable interest rates of TIBOR plus 1.65% to TIBOR plus 2% and refinanced them with a new approximately $100 million loan from three leading Japanese banks at better terms. The new loan final maturity date is June 2025, and includes a three year grace period, nine equal installments to be paid from June 2021 to June 2025, and a fixed interest rate of 1.95% per annum.

In July 2018, TJT early repaid its $40 million loan, initially borrowed in 2016 from JA Mitsui (US), in relation to the acquisition of the San Antonio fab from Maxim.

During the year ended December 31, 2018, Jazz's notes in the aggregate amount of $58 million, originally due December 2018 if not earlier converted to Tower Semiconductor ordinary shares, were fully converted.