FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of May 2020 No.2

Commission File Number 0-24790

TOWER SEMICONDUCTOR LTD.

(Translation of registrant's name into English)

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

(Address of principal executive offices)

	Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
	Form 20-F ⊠ Form 40-F □
(1): _	Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)
(7): _	Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)

On May 13, 2020, the Registrant announced its financial results for the three months ended March 31, 2020. Attached hereto is the following exhibit.

Exhibit 99.1 Press release dated May 13, 2020.

SIGNATURES

Date: May 13, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TOWER SEMICONDUCTOR LTD.

By: /s/ Nati Somekh

Name: Nati Somekh Title: Corporate Secretary



Tower Semiconductor Reports First Quarter 2020 with Year over Year Organic Revenue Growth

Revenues of \$300 Million; Cash from Operations of \$68 Million, EBITDA of \$73 Million and Net Profit of \$17 Million

Guides Second Quarter Sequential Revenue Growth

MIGDAL HAEMEK, ISRAEL – May 13, 2020– Tower Semiconductor (NASDAQ: TSEM & TASE: TSEM) reported today its results for the first quarter ended March 31, 2020.

First Quarter Results Overview

Revenues for the first quarter of 2020 were \$300 million, reflecting 10% year over year organic revenue growth (organic revenues are defined as total revenue excluding revenues from Panasonic in the TPSCo fabs and revenues from Maxim in the San Antonio fab).

Gross and **operating profits** for the first quarter of 2020 were \$53 million and \$16 million, respectively; the 10% year over year organic revenue growth and efficiencies enabled the company to mitigate 55% of the impact in gross and operating profits resulting from Panasonic renewed contract revenue reduction. **EBITDA** for the first quarter of 2020 was \$73 million; **Net profit** for the first quarter of 2020 was \$17 million, or \$0.16 basic and diluted earnings per share.

Cash flow generated from operations in the first quarter of 2020 was \$68 million. Investment in fixed assets, net was \$63 million in the first quarter of 2020 and included payments related to the previously announced 300mm fab capex investment, to support current customer demand increase, with additional planned shipments beginning the third quarter of 2020. In the first quarter of 2020, the company repaid \$24 million of its debt.

Shareholders' equity as of March 31, 2020 was a record of \$1.36 billion, reflecting 70% from total assets.

Business Outlook

Tower Semiconductor expects revenues for the second quarter of 2020 to be \$310 million, with an upward or downward range of 5%.

Mr. Russell Ellwanger, Chief Executive Officer of Tower Semiconductor, commented, "We began 2020 with a pandemic that has grown worldwide, vastly impacting the global business and economic environment. COVID-19 has created new and considerable hurdles, forcing us, together with the entire world, to modify and implement a new mode of life, and with that, a different mode of work. We remain proactive on all fronts with respect to the health and safety of our employees, operational and supply chain management and our customers with an even increased communication, to maximize every `wafer of opportunity` - providing reliable short- and long-term technology and manufacturing solutions in response to their changing needs."

Ellwanger further commented: "Updated customer forecasts continue to show quarter over quarter growth through the year. As a well experienced, mature, strong global company – with an exceptional base of talented and most dedicated employees - we remain committed to our customer partnerships, towards long-term mutual growth, working through any short-term challenges."

Corporate Credit Rating

On May 6, 2020, Standard & Poor's Ma'alot (an Israeli rating company that is fully owned by S&P Global Ratings) completed its annual rating review for the Company and affirmed a corporate credit rating and bonds series G rating of "ilAA-", with a stable horizon.

Shelf Filing

In May 2020, the ISA (Israel Securities Authority) approved the filing of the Company's shelf registration statement, following the expiration of its previously filed 2016 shelf. The shelf provides the Company with a platform for future public fundraising although no specific fundraising is currently offered under this shelf. If the Company will make any decision to raise any funds under this shelf, it will publish a supplemental shelf-take-down report containing specific information and terms. This shelf filing and/or this press release shall not constitute an offer to sell, or the solicitation of an offer to buy, any securities. The shelf documents are available under www.tase.co.il.

Teleconference and Webcast

Tower Semiconductor will host an investor conference call today, Wednesday, May 13, 2020, at 10:00 a.m. Eastern time (9:00 a.m. Central time, 8:00 a.m. Mountain time, 7:00 a.m. Pacific time and 5:00 p.m. Israel time) to discuss the Company's financial results for the first quarter of 2020 and its outlook.

This call will be webcast and can be accessed via Tower Semiconductor's website at www.towersemi.com or by calling 1-888-668-9141 (U.S. Toll-Free), 03-918-0609 (Israel), +972-3-918-0609 (International). For those who are not available to listen to the live broadcast, the call will be archived on Tower Semiconductor's website for 90 days.

The Company presents its financial statements in accordance with U.S. GAAP. The financial information included in the tables below includes unaudited condensed financial data. Some of the financial information in this release and/ or in related public disclosures or filings with respect to the financial statements and/or results of the Company, which we describe in this release as "adjusted" financial measures, are non-GAAP financial measures as defined in Regulation G and related reporting requirements promulgated by the Securities and Exchange Commission as they apply to our Company. These adjusted financial measures are calculated excluding one or both of the following: (1) amortization of acquired intangible assets and (2) compensation expenses in respect of equity grants to directors, officers and employees. These adjusted financial measures should be evaluated in conjunction with, and are not a substitute for, GAAP financial measures. The tables also present the GAAP financial measures, which are most comparable to the adjusted financial measures, as well as a reconciliation between the adjusted financial measures and the comparable GAAP financial measures. As used and/ or presented in this release and/ or in related public disclosures or filings with respect to the financial statements and/or results of the Company, as well as calculated in the tables herein, the term Earnings Before Interest Tax Depreciation and Amortization (EBITDA) consists of net profit in accordance with GAAP, excluding interest and other financing expense, net, other income, net, taxes, non-controlling interest, depreciation and amortization expense and stock-based compensation expense. EBITDA is reconciled in the tables below from GAAP operating profit. EBITDA is not a required GAAP financial measure and may not be comparable to a similarly titled measure employed by other companies. EBITDA and the adjusted financial information presented herein and/ or in related public disclosures or filings with respect to the financial statements and/or results of the Company, should not be considered in isolation or as a substitute for operating profit, net profit or loss, cash flows provided by operating, investing and financing activities, per share data or other profit or cash flow statement data prepared in accordance with GAAP. The term Net Cash, as used and/or presented in this release and/ or in related public disclosures or filings with respect to the financial statements and/ or results of the Company, is comprised of cash, cash equivalents, short-term deposits and marketable securities less debt amounts as presented in the balance sheets included herein. The term Net Cash is not a required GAAP financial measure, may not be comparable to a similarly titled measure employed by other companies and should not be considered in isolation or as a substitute for cash, debt, operating profit, net profit or loss, cash flows provided by operating, investing and financing activities, per share data or other profit or cash flow statement data prepared in accordance with GAAP. The term Free Cash Flow, as used and/or presented in this release and/ or in related public disclosures or filings with respect to the financial statements and/ or results of the Company, is calculated to be net cash provided by operating activities (in the amounts of \$68 million, \$72 million and \$75 million for the three months periods ended March 31, 2020, December 31, 2019 and March 31, 2019, respectively) less cash used for investments in property and equipment, net (in the amounts of \$63 million, \$44 million and \$42 million for the three months periods ended March 31, 2020, December 31, 2019 and March 31, 2019, respectively). The term Free Cash Flow is not a required GAAP financial measure, may not be comparable to a similarly titled measure employed by other companies and should not be considered in isolation or as a substitute for operating profit, net profit or loss, cash flows provided by operating, investing and financing activities, per share data or other profit or cash flow statement data prepared in accordance with GAAP.

About Tower Semiconductor

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the leader in high-value analog semiconductor foundry solutions, provides technology and manufacturing platforms for integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, mobile, infrastructure, medical and aerospace and defense. Tower Semiconductor focuses on creating positive and sustainable impact on the world through long term partnerships and its advanced and innovative analog technology offering, comprised of a broad range of customizable process platforms such as SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, non-imaging sensors, integrated power management (BCD and 700V), and MEMS. Tower Semiconductor also provides world-class design enablement for a quick and accurate design cycle as well as Transfer Optimization and development Process Services (TOPS) to IDMs and fabless companies. To provide multi-fab sourcing and extended capacity for its customers, Tower Semiconductor operates two manufacturing facilities in Israel (150mm and 200mm), two in the U.S. (200mm) and three facilities in Japan (two 200mm and one 300mm) through TPSCo. For more information, please visit www.towersemi.com.

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This press release includes forward-looking statements, which are subject to risks and uncertainties. Actual results may vary from those projected or implied by such forward-looking statements and you should not place any undue reliance on such forwardlooking statements. Potential risks and uncertainties include, without limitation, risks and uncertainties associated with: (i) demand in our customers' end markets; (ii) over demand for our foundry services and/or products that exceeds our capacity; (iii) maintaining existing customers and attracting additional customers, (iv) high utilization and its effect on cycle time, yield and on schedule delivery which may cause customers to transfer their product(s) to other fabs, (v) operating results fluctuate from quarter to quarter making it difficult to predict future performance, (vi) impact of our debt and other liabilities on our financial position and operations, (vii) our ability to successfully execute acquisitions, integrate them into our business, utilize our expanded capacity and find new business, (viii) fluctuations in cash flow, (ix) our ability to satisfy the covenants stipulated in our agreements with our lender banks and bondholders (as of March 31, 2020 we are in compliance with all such covenants included in our banks' agreements, bond G indenture and others), (x) pending litigation, (xi) new customer engagements, qualification and production ramp-up at our facilities, including TPSCo and the San Antonio facility, (xii) meeting the conditions set in the approval certificates received from the Israeli Investment Center under which we received a significant amount of grants in past years, (xiii) receipt of orders that are lower than the customer purchase commitments, (xiv) failure to receive orders currently expected, (xv) possible incurrence of additional indebtedness, (xvi) effect of global recession, unfavorable economic conditions and/or credit crisis, (xvii) our ability to accurately forecast financial performance, which is affected by limited order backlog and lengthy sales cycles, (xviii) possible situations of obsolete inventory if forecasted demand exceeds actual demand when we manufacture products before receipt of customer orders, (xix) the cyclical nature of the semiconductor industry and the resulting periodic overcapacity, fluctuations in operating results and future average selling price erosion, (xx) the execution of debt refinancing and/or fundraising to enable the service of our debt and/or other liabilities and/or for strategic opportunities and the possible unavailability of such financing and/ or the availability of such financing in unfavorable terms, (xxi) operating our facilities at high utilization rates which is critical in order to cover a portion or all of the high level of fixed costs associated with operating a foundry, and our debt, in order to improve our results, (xxii) the purchase of equipment to increase capacity, the timely completion of the equipment installation, technology transfer and raising the funds therefor, (xxiii) the concentration of our business in the semiconductor industry, (xxiv) product returns, (xxv) our ability to maintain and develop our technology processes and services to keep pace with new technology, evolving standards, changing customer and end-user requirements, new product introductions and short product life cycles, (xxvi) competing effectively, (xxvii) use of outsourced foundry services by both fabless semiconductor companies and integrated device manufacturers; (xxviii) achieving acceptable device yields, product performance and delivery times, (xxix) our dependence on intellectual property rights of others, our ability to operate our business without infringing others' intellectual property rights and our ability to enforce our intellectual property against infringement, (xxx) our fab3 landlord's construction project adjacent to our fabrication facility, including possible temporary reductions or interruptions in the supply of utilities and/or fab manufacturing, as well as claims that our noise abatement efforts are not adequate under the terms of the amended lease; (xxxi) retention of key employees and recruitment and retention of skilled qualified personnel, (xxxii) exposure to inflation, currency rates (mainly the Israeli Shekel and Japanese Yen) and interest rate fluctuations and risks associated with doing business locally and internationally, as well fluctuations in the market price of our traded securities, (xxxiii) issuance of ordinary shares as a result of conversion and/or exercise of any of our convertible securities, as well as any sale of shares by any of our shareholders, or any market expectation thereof, which may depress the market price of our ordinary shares and may impair our ability to raise future capital, (xxxiv) meeting regulatory requirements worldwide, including environmental and governmental regulations, (xxxv) negotiation and closure of a definitive agreement in relation to fab establishment in China, as well as project implementation through required outside funding and resources and receipt of future proceeds therefrom, (xxxvi) potential future effect on TPSCo and the Company due to the possible closing of Panasonic sale of PSCS (a company holding 49% of TPSCo) to Nuvoton, (xxxvii) industry and market impact due to the coronavirus and its potential impact on our business, operational continuity, supply chain, revenue and profitability; (xxxviii) potential security, cyber and privacy breaches, and (xxxix) business interruption due to fire and other natural disasters, the security situation in Israel and other events beyond our control such as power interruptions.

A more complete discussion of risks and uncertainties that may affect the accuracy of forward-looking statements included in this press release or which may otherwise affect our business is included under the heading "Risk Factors" in Tower's most recent filings on Forms 20-F and 6-K, as were filed with the Securities and Exchange Commission (the "SEC") and the Israel Securities Authority. Future results may differ materially from those previously reported. The Company does not intend to update, and expressly disclaims any obligation to update, the information contained in this release.

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(Financial tables follow)

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED) (dollars in thousands)

	March 31, 2020	December 31, 2019
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 251,348	\$ 355,561
Short-term deposits	277,857	215,609
Marketable securities	191,434	176,070
Trade accounts receivable	115,194	126,966
Inventories	198,285	192,256
Other current assets	22,332	22,019
Total current assets	1,056,450	1,088,481
LONG-TERM INVESTMENTS	39,562	40,085
PROPERTY AND EQUIPMENT, NET	732,169	681,939
INTANGIBLE ASSETS, NET	9,963	10,281
GOODWILL	7,000	7,000
DEFERRED TAX AND OTHER LONG-TERM ASSETS, NET	93,032	105,047
TOTAL ASSETS	<u>\$ 1,938,176</u>	\$ 1,932,833
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
Short-term debt	\$ 62,885	\$ 65,932
Trade accounts payable	148,671	119,199
Deferred revenue and customers' advances	10,191	10,322
Other current liabilities	54,192	57,603
Total current liabilities	275,939	253,056
LONG-TERM DEBT	220,216	245,821
LONG-TERM CUSTOMERS' ADVANCES	27,755	28,196
LONG-TERM EMPLOYEE RELATED LIABILITIES	12,730	13,285
DEFERRED TAX AND OTHER LONG-TERM LIABILITIES	40,941	45,752
TOTAL LIABILITIES	577,581	586,110
TOTAL SHAREHOLDERS' EQUITY	1,360,595	1,346,723
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	<u>\$ 1,938,176</u>	\$ 1,932,833

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

		Three months en				n d e d		
	M	March 31,		December 31,		March 31,		
		2020		2019		2019		
REVENUES	\$	300,171	\$	305,710	\$	310,107		
COST OF REVENUES		247,628		250,878		246,956		
GROSS PROFIT		52,543		54,832		63,151		
OPERATING COSTS AND EXPENSES:								
Research and development		19,414		18,877		19,168		
Marketing, general and administrative		16,691	_	17,057		16,641		
		36,105		35,934		35,809		
OPERATING PROFIT		16,438		18,898		27,342		
FINANCING AND OTHER INCOME (EXPENSE), NET		(2,113)		3,058		725		
PROFIT BEFORE INCOME TAX		14,325		21,956		28,067		
INCOME TAX BENEFIT (EXPENSE), NET		1,706		(2,360)		(1,667)		
PROFIT BEFORE NON CONTROLLING INTEREST		16,031		19,596		26,400		
NON CONTROLLING INTEREST		989	_	1,111		(184)		
NET PROFIT	\$	17,020	\$	20,707	\$	26,216		
BASIC EARNINGS PER SHARE	\$	0.16	\$	0.19	\$	0.25		
Weighted average number of shares	_	106,814	_	106,710	_	105,331		
DILUTED EARNINGS PER SHARE	\$	0.16	\$	0.19	\$	0.25		
Weighted average number of shares	_	108,149	_	107,995	_	106,972		
RECONCILIATION FROM GAAP NET PROFIT TO ADJUSTED NET PROFIT:								
GAAP NET PROFIT Stock based compensation	\$	17,020 4,543	\$	20,707 3,066	\$	26,216 3,823		
Amortization of acquired intangible assets		310		453		1,641		
ADJUSTED NET PROFIT	\$	21,873	\$	24,226	\$	31,680		
ADJUSTED EARNINGS PER SHARE:								
Basic	\$	0.20	\$	0.23	\$	0.30		
Diluted	\$	0.20	\$	0.22	\$	0.30		

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES RECONCILIATION FROM GAAP OPERATING PROFIT TO EBITDA (UNAUDITED) (dollars in thousands)

		Three months ended					
	Ma	March 31,		December 31,		arch 31,	
	- :	2020	2019			2019	
EBITDA CALCULATION:							
GAAP OPERATING PROFIT	\$	16,438	\$	18,898	\$	27,342	
Depreciation of fixed assets		51,484		52,222		46,041	
Stock based compensation		4,543		3,066		3,823	
Amortization of acquired intangible assets		310		453		1,641	
EBITDA	\$	72,775	\$	74,639	\$	78,847	

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARIES CONSOLIDATED SOURCES AND USES REPORT (UNAUDITED) (dollars in thousands)

	Three months ended					
	March 31,		31, December 31,		March 31,	
	2020		2019			2019
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CASH AND CASH EQUIVALENTS - BEGINNING OF PERIOD	\$	355,561	\$	417,636	\$	385,091
Net cash provided by operating activities		68,336		71,561		74,868
Investments in property and equipment, net		(62,907)		(43,704)		(41,718)
Exercise of options, net		87		1,402		397
Debt repaid, net		(24,197)		(3,247)		(3,074)
Effect of Japanese Yen exchange rate change over cash balance		(176)		(557)		(740)
Investments in short-term deposits, marketable securities and other assets, net		(85,356)		(87,530)		(6,726)
CASH AND CASH EQUIVALENTS - END OF PERIOD	\$	251,348	\$	355,561	\$	408,098

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

	Thr	Three months ended			
	March 31,	December 31,	March 31,		
	2020	2019	2019		
CASH FLOWS - OPERATING ACTIVITIES					
Net profit for the period	\$ 16,031	\$ 19,596	\$ 26,400		
A 31 street to the control of the co					
Adjustments to reconcile net profit for the period					
to net cash provided by operating activities:					
Income and expense items not involving cash flows:	EC 50C	FC 404	FD 014		
Depreciation and amortization	56,796	56,404	52,014		
Effect of exchange rate differences on debentures	(4,069)		4,001		
Other income, net	(14)	(3,582)	(17)		
Changes in assets and liabilities:	44 605	(0.450)	40.000		
Trade accounts receivable	11,685	(3,458)	18,606		
Other assets	7,355	3,133	(3,705)		
Inventories	(6,171)	• • • •	(3,395)		
Trade accounts payable	(6,199)		(2,651)		
Deferred revenue and customers' advances	(571)		(10,685)		
Other current liabilities	(3,248)		(4,803)		
Long-term employee related liabilities	(31)		68		
Deferred tax, net and other long-term liabilities	(3,228)		(965)		
Net cash provided by operating activities	68,336	71,561	74,868		
CACH ELONG INTEGRAL ACTIVITATE					
CASH FLOWS - INVESTING ACTIVITIES	(CD 00=)	(42 =0.4)	(44 =40)		
Investments in property and equipment, net	(62,907)		(41,718)		
Investments in deposits, marketable securities and other assets, net	(85,356)		(6,726)		
Net cash used in investing activities	(148,263)	(131,234)	(48,444)		
CACH ELONG ENNANCINO ACTIVITATE					
CASH FLOWS - FINANCING ACTIVITIES					
Debt repaid, net	(24,197)	(3,247)	(3,074)		
Exercise of options	87	1,402	397		
Net cash used in financing activities	(24,110)		(2,677)		
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EFFECT OF FOREIGN CURRENCY EXCHANGE RATE CHANGE	(176)	(557)	(740)		
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(104,213)	(62,075)	23,007		
CASH AND CASH EQUIVALENTS - BEGINNING OF PERIOD	355,561	417,636	385,091		
CASH AND CASH EQUIVALENTS - END OF PERIOD	\$ 251,348	\$ 355,561	\$ 408,098		