Zacks Small-Cap Research

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TowerJazz

(TSEM-NASDAQ)

TSEM: Maxim Deal Closes, Raising 2016 Revenues by $90 Million

OUTLOOK

TowerJazz is a pure-play semiconductor wafer foundry that manufactures SiGe, MEMS, RF, embedded flash-based memory, analog/mixed-signal, and CMOS image-sensor devices in the US, Israel and Japan. It has ample capacity and is serving high growth markets such as RF High Position analog, CMOS image sensors, and power management. It is expected to grow despite tepid world markets for semiconductors due the to specific markets it addresses.

Current Recommendation	**Buy**
Prior Recommendation	Hold
Date of Last Change	02/23/2012
Current Price (02/02/16)	$14.89
Target Price	**$22**

SUMMARY DATA

52-Week High	**$17.95**
52-Week Low	**$10.42**
One-Year Return (%)	**30.0**
Beta	**1.58**
Average Daily Volume (sh)	**525,122**
Shares Outstanding (mil)	**78**
Market Capitalization ($mil)	**$1,164**
Short Interest Ratio (days)	**5.6**
Institutional Ownership (%)	**35**
Insider Ownership (%)	**1**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**10.2**
Earnings Per Share (%)	**2.1**
Dividend (%)	**N/A**
P/E using TTM EPS	**7.5**
P/E using 2015 Estimate	**7.1**
P/E using 2016 Estimate	**4.7**
Zacks Rank	**N/A**

Risk Level	**Above Average**
Type of Stock	**Mid-Growth**
Industry	**Elect. Comp-Semi.**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2013	113 A	125 A	133 A	135 R	505 A
2014	133 A	234 A	226 A	235 A	828 A
2015	226 A	236 A	244 A	252 E	958 E
2016	267 E	286 E	308 E	324 E	1,185 E

Earnings per Share
(Non-GAAP Fully Diluted)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2013	$0.15 A	$0.21 A	$0.25 A	$0.30 A	$0.97 A
2014	$0.30 A	$0.41 A	$0.40 A	$0.54 A	$1.65 A
2015	$0.52 A	$0.54 A	$0.58 A	$0.67 E	$2.30 E
2016	$0.67 E	$0.75 E	$0.86 E	$0.94 E	$3.18 E

Income Statement uses fully diluted shares outstanding

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WHATS NEW

Maxim Transaction Adds a Minimum of $90 in Annual Revenues; Raising Numbers

Today TowerJazz announced it closed the purchase of Maxim's 8-inch fab in San Antonio, Texas. This will increase its production capacity by 28,000 wafers per month and generate a guaranteed minimum of $90 million in annual revenues from Maxim. The fab was acquired for 3.3 million shares of TSEM common stock. This acquisition will give the company an additional $200 million of capacity (including what is sells Maxim). The fab produces advanced analog platforms with geometries down to 130nm. It will also be able to use TSEM's specialty process technologies and the company plans to produce RF-ROI product there very quickly.

We are therefore adding 11 months of the annual $90 million in revenues to the 2016 annual revenue forecast (or $82.5 million), but leaving earnings where they until we get better clarification of expenses. At any rate we do not expect the transaction to be significantly dilutive or accretive in 2016. In the latter half of this year we do believe the company made bring on some outside revenues and estimates could move up in Q3 or Q4 from this transaction.

2016 Forecast

Adding Maxim's fab to revenues should add a minimum of $90 million per year in guaranteed sales from Maxim. TSEM will also be adding 500 new employees to the payroll. The company should be adding another $2 million in expenses per quarter due to Maxim. TowerJazz is still in the process of getting a valuation on the Maxim fab which we believe could be somewhere in the $100 million range. If that is correct, depreciation on the fab could be approximately $6 million per year, not a big increase on the $156 million currently expected.

INVESTMENT THESIS

- The current fab capacity with the addition of the Maxim fab being added in January, will allow the company to grow revenues and improve margins through capacity utilization.
- Having Panasonic as a partner gives the company increased stature in the industry and has attracted new customers who have a favorable disposition to working with a trusted and known company with high quality product and leading edge expertise in imaging.
- Its largest market segment, RF, sells into the smartphone market and will grow faster than that market as multiple chips are now being sold per device.
- The company has a strong market position in high quality imaging and 3D, which is increasing being used for gesturing controls as well as smartphones with high megapixel cameras. In this area its primary competition is Sony, which makes it a preferable source for many companies that compete with Sony.
- While its competitors are showing slowing or declining revenues, Tower is positioned to grow in 2016.
- We believe that the stock could move to $22 based on blend of enterprise value to sales and multiple of EBITDA ratios and PE ratios versus peer values by next year and rate the stock a buy.

VALUATION

TSEM's public foundry competitors have shown lackluster results of late. SMI grew 9.2% year-over-year in the third quarter, while in Q4 revenues at TSMC declined 8.5% and UMC saw a 9.1% decline. SMI expects its revenue to grow 3-6% in Q4. A bright spot for SMI is fingerprint sensors due to accelerating adoption in smartphones as well as diversification of its customer base to U.S. and Eurasia. Given its product mix however, TowerJazz has not seen the same slowdown. We are expecting 7% growth in Q4 and 18% in Q1 2016.

As shown on the chart below, the average company is trading at a valuation of 1.9 times 2016 estimated revenues. In using these companies as comparables, we have taken out the 49% of revenues we estimate are afforded to the Panasonic joint venture, as TowerJazz only owns 51%. That reduces the 2016 revenue number to $924 million with the increase in estimates due to the addition of Maxim. Using these comparables, TSEM common stock is worth $16.43 today.

Valuation Based on Enterprise Value to Sales

Foundry Companies

	Ticker	**Revenue**		**EBIDTA**	**Enterprise Value / Sales**		**Included**
Company		2016E	LTM	Margin	2016E	LTM	in Average?
Advanced Semiconductor	ASX	$10,240	$8,470	13%	1.0x	1.2x	y
Semiconductor Manufacturing	SMI	$2,560	$2,110	33%	1.4x	1.7x	y
Taiwan Semiconductor	TSM	$27,400	$25,690	64%	3.9x	4.2x	y
United Microelectronics	UMC	$4,500	$4,310	39%	1.1x	1.2x	y
Average				**37%**	**1.9x**	**2.1x**	

	Revenue*		EBITDA	Enterprise Value / Sales		Valuation Range	
	2016E	LTM	Margin	2016E	LTM	Low	High
Tower Jazz- February 2, 2016	**$924**	**$730**	**14.00%**	**1.9x**	**2.1x**	**$1,506**	**$1,719**
YoY growth							

Conclusion of Enterprise Value	**$1,612,517,272**
Market Value	**$1,494,892,272**
Shares Outstanding	90,978,000
Price per Share	**$16.43**

* Adjusted for minority revenues

Valuation Based on EBITDA

The same peer group as above trades at 5.2x enterprise value to EBITDA. TSEM should generate about $243 million in EBITDA this year and $350 million next year. Using the 5.2 multiple, the company should have an enterprise value of $1.8 billion by next year. This equates to $20.00 per share.

Foundry Companies	Ticker	LTM 12-Mo EBITDA	EV/EBITDA
Company			
Advanced Semiconductor	ASX	$1,690	5.9
Semiconductor Manufacturing	SMI	$672	5.3
Taiwan Semiconductor	TSM	$16,500	6.6
United Microelectronics	UMC	$1,680	3.0
Average			**5.2x**

Valuing Based on PE

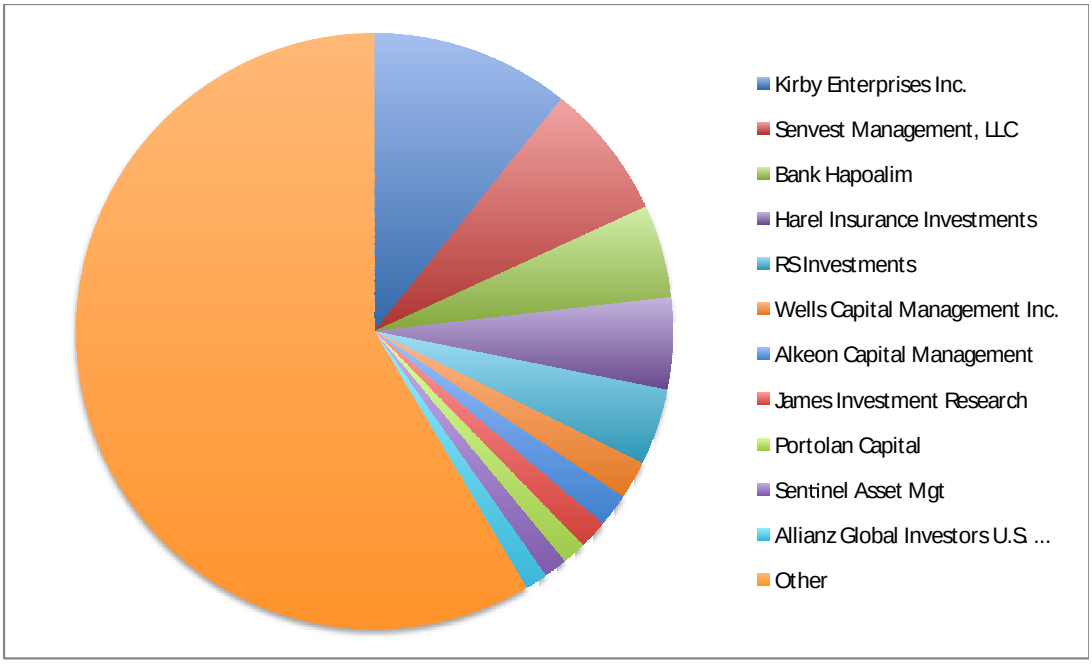
The PE ratio of the other foundry companies we see an average of 10.4 to 16.2 times 2016 estimated. To compare, we need to add back the depreciation and amortization into TSEM's EPS number to get an equivalent PE to these companies. If we assume TSEM has $156 million in depreciation and amortization in 2016 (a bit more with the Maxim plant) and subtract that from the non-GAAP net income and divide by fully diluted shares we get $1.80 per share. Using a PE of 13 times that give us a stock price of $23 per share. Of course as the fastest grower of the group, TSEM deserves a higher multiple than that.

Foundry Companies	Ticker	EPS 15	EPS 16	Price	PE 2015	PE 2016	Growth Rate
Company							
Advanced Semiconductor	ASX	$0.40	$0.50	$5.19	13.0	10.4	25%
Semiconductor Manufacturing	SMI	0.37	0.42	4.47	12.1	10.6	14%
Taiwan Semiconductor	TSM	1.78	1.86	22.58	12.7	12.1	4%
United Microelectronics	UMC	0.14	0.11	1.78	12.7	16.2	-21%
Average					12.6	13.0	-1.1%

By taking a blended valuation of these three methods, we arrive with an average expected price of $20 per share today. We expect the stock to appreciate in the next twelve months from that price to reach $22 per share once investors start to value it based on 2017 numbers.

OWNERSHIP

Chart 1: Largest Investors as of February 2, 2016



Source: E*TRADE and SEC filings

BALANCE SHEET

$ in thousands	Sept. 30, 2015	June 30, 2015	
CURRENT ASSETS			
Cash and cash equivalents	**$155,348**	**$142,503**	9%
Trade accounts receivable	122,686	112,624	9%
Other receivables	7,263	6,333	15%
Inventories	104,396	91,855	14%
Other current assets	23,731	18,796	26%
Total current assets	**413,424**	**372,111**	11%
LONG-TERM INVESTMENTS	12,050	12,437	-3%
PROPERTY AND EQUIPMENT, NET	430,477	415,092	4%
INTANGIBLE ASSETS, NET	36,718	39,283	-7%
GOODWILL	7,000	7,000	0%
OTHER ASSETS, NET	7,220	7,410	-3%
TOTAL ASSETS	906,889	853,333	6%
CURRENT LIABILITIES			
Current maturities of loans and debentures	**49,224**	**40,558**	21%
Trade accounts payable	111,917	106,677	5%
Deferred revenue	14,752	11,540	28%
Other current liabilities	76,765	72,715	6%
Total current liabilities	**252,658**	**231,490**	9%
LONG-TERM DEBT	**206,801**	**214,357**	-4%
LONG-TERM CUSTOMERS' ADVANCES	21,110	6,178	242%
EMPLOYEE RELATED LIABILITIES	15,786	16,571	-5%
DEFERRED TAX LIABILITY	76,197	74,551	2%
OTHER LONG-TERM LIABILITIES	9,730	9,897	-2%
Total liabilities	582,282	553,044	5%
SHAREHOLDERS' EQUITY	324,607	300,289	8%
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$906,889	$828,496	9%
Current Ratio	1.6	1.6	2%
Quick Ratio	1.2	1.2	1%
Debt Percent of Assets	28%	30%	-5%
Debt to Equity	0.8	0.8	-7%

INCOME STATEMENT

	Dec Q4 14A	March Q1 15	June Q2 15	Sept Q3 15	Dec Q4 15E	March Q1 16E	June Q2 16E	Sept Q3 16E	Dec Q4 16E	Non-GAAP 2013	Non-GAAP 2014	Non-GAAP 2015E	Non-GAAP 2016E
REVENUE													
Net Revenue	235.3	226.2	235.6	244.2	252.0	267.0	285.5	308.0	324.0	505.0	828.0	958.0	1,184.5
Yr-to-yr Gr.	75%	71%	1%	8%	7%	18%	21%	26%	29%	-21%	64%	16%	24%
OPERATING EXPENSES													
Cost of goods sold	151.1	145.5	148.2	150.6	150.0	161.8	170.4	177.9	183.9	341.9	569.1	600.0	694.0
Gross Margin	84.2	80.7	87.4	93.6	102.0	105.2	115.1	130.1	140.1	163.2	258.9	358.0	490.5
% of Sales	35.8%	35.7%	37.1%	38.3%	40.5%	39.4%	40.3%	42.2%	43.2%	32.3%	31.3%	37.4%	41.4%
R&D	13.7	14.4	14.4	15.8	15.8	16.4	16.5	17.0	17.0	32.5	50.0	60.4	66.9
M, G&A	14.6	14.9	14.4	14.8	14.8	15.8	16.0	16.6	17.5	40.5	55.1	58.9	65.9
One-time charges	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tot Operating Exp.	28.3	29.4	28.8	30.6	30.6	32.2	32.5	33.6	34.5	73.0	105.0	119.3	132.8
Operating Income	55.9	51.3	58.6	63.1	71.4	73.0	82.6	96.5	105.6	90.1	153.9	238.7	357.7
Operating Margin	24%	23%	25%	26%	28%	27%	29%	31%	33%	18%	19%	25%	30%
Yr-to-yr Gr.	101%	87%	77%	69%	28%	20%	16%	21%	15%		19%	24.9%	30.2%
Net Interest	(7.8)	(3.6)	(3.6)	(3.6)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(33.0)	(33.4)	(12.8)	(8.0)
Other income	0.0	(0.0)	(0.0)	(0.2)	(0.2)	(0.1)	(0.1)	(0.2)	(0.2)	(0.9)	(0.1)	(0.5)	(0.6)
Minority Income	(3.6)	2.3	(0.4)	(0.5)	(1.0)	(1.0)	(2.0)	(3.0)	(4.0)	0.0	5.6	0.5	(10.0)
Pretax Income	44.5	50.0	54.6	58.8	68.2	69.9	78.5	91.3	99.4	56.3	126.0	225.9	339.1
	18.9%	22.1%	23.2%	24.1%	27.1%	26.2%	27.5%	29.7%	30.7%	11.1%	15.2%	23.6%	28.6%
Taxes	(1.4)	0.5	0.7	1.2	1.2	0.8	0.9	1.0	1.1	0.2	(1.6)	3.6	3.7
Tax Rate	-3.2%	0.9%	1.3%	2.0%	1.8%	1.1%	1.1%	1.1%	1.1%	0.3%	-1.2%	1.6%	1.1%
Non-GAAP Net Income	45.9	49.5	53.9	57.6	67.0	69.1	77.6	90.3	98.3	56.1	127.5	222.3	335.4
Yr-to-yr Gr.	140%	154%	74%	86%	46%	40%	44%	57%	47%	-57%	127%	74%	51%
Depreciation	71.9	48.0	37.3	39.1	39.0	39.0	39.0	39.0	39.0	164.8	243.4	170.0	156.0
Net Income minus Depreciation		1.5	16.6	18.5	28.0	30.1	38.6	51.3	59.3	(108.8)	(115.8)	52.3	179.4
Adj Non-GAAP EPS-Basic	$0.83	$0.78	$0.70	$0.74	$0.84	$0.79	$0.87	$1.02	$1.11	$1.42	$2.46	$2.99	$3.79
Adj Non-GAAP EPS-Fully dil.	**$0.50**	**$0.52**	**$0.54**	**$0.58**	**$0.67**	**$0.67**	**$0.75**	**$0.86**	**$0.94**	**$0.97**	**$1.60**	**$2.32**	**$3.18**
Yr-to-yr Gr.	69%	75%	32%	48%	34%	28%	37%	48%	40%	-63%	65%	44%	37%
Share Out	55.6	63.6	76.7	77.4	80.0	87.7	88.8	88.8	88.8	39.6	51.8	74.4	88.6
Fully Diluted As Reported		63.6	96.8	95.9	96.9	100.7	101.8	101.8	101.8	NA	NA	88.3	101.6
Fully diluted-treasury stock method	101.6	102.0	102.9	102.0	103.0	106.8	106.8	106.8	106.8	76.1	91.8	102.5	106.8

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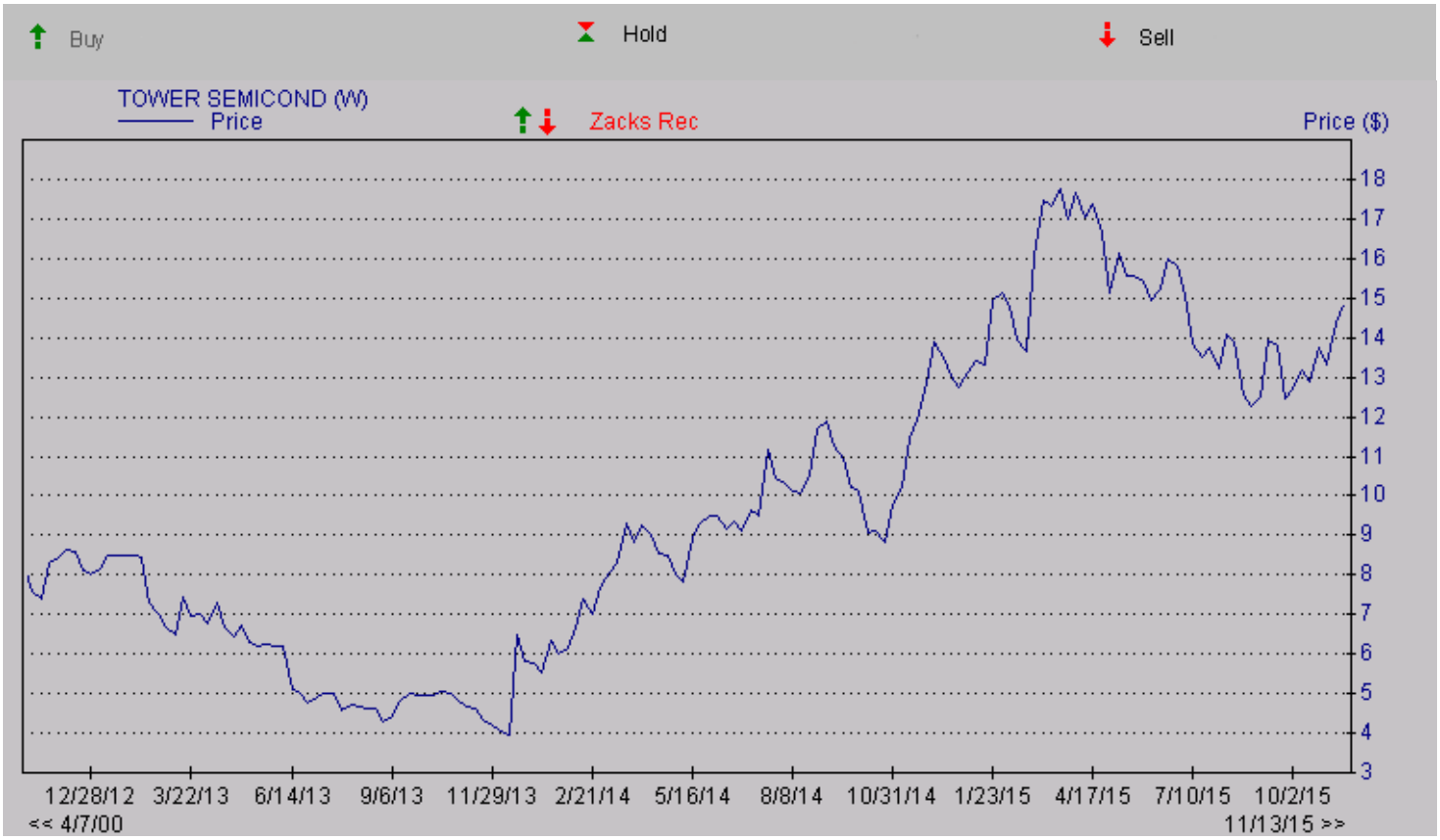

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