Zacks Small-Cap Research

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TowerJazz

(TSEM-NASDAQ)

TSEM: OUTPERFORM

Better Margins Power Higher Earnings

Current Recommendation	**Outperform**
Prior Recommendation	Neutral
Date of Last Change	02/23/2012
Current Price (02/24/15)	$15.70
Target Price	**$24**

OUTLOOK

TowerJazz (formerly Tower Semiconductor) is a pure-play semiconductor wafer foundry that manufactures SiGe, MEMS, RF, embedded flash-based memory, analog/mixed-signal, and CMOS image-sensor devices. Its recent joint venture agreement with Panasonic is adding approximately $400m in new consolidated annual revenues. Additionally, with the closing of a fab, increased capacity utilization and lower costs should be a boom to earnings in 2015 and beyond as its fixed cost model is leveraged.

SUMMARY DATA

52-Week High	**$16.05**
52-Week Low	**$6.91**
One-Year Return (%)	**127.2**
Beta	**1.44**
Average Daily Volume (sh)	**1,633,572**
Shares Outstanding (mil)	**65**
Market Capitalization ($mil)	**$1,021**
Short Interest Ratio (days)	**5.90**
Institutional Ownership (%)	**35**
Insider Ownership (%)	**1**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**10.5**
Earnings Per Share (%)	**-15.5**
Dividend (%)	**N/A**
P/E using TTM EPS	**9.5**
P/E using 2015 Estimate	**7.9**
P/E using 2016 Estimate	**5.6**
Zacks Rank	**3**

Risk Level	**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	225 E	230 E	240 E	255 E	950 E
2016					1,115 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	$0.37 E	$0.44 E	$0.54 E	$0.65 E	$2.00 E
2016					$2.80 E

Income Statement uses fully diluted shares outstanding

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WHATS NEW

Q4 Shows Higher Margins than Expected; Profitable on a GAAP Basis

While revenues came in as expected, profits were much higher than expected and the company showed its first quarterly GAAP profit in years on an on-going basis. While it also showed a GAAP profit for the year, this was heavily dependent on third party valuation of the joint venture rather than operating result. The Panasonic joint venture also reported a profit ahead of schedule versus our estimates, but there were one-time gains ass. Revenues were on target with our estimates at $235 million up 75% close to our $236 million estimate. It was also up 4% sequentially.

Again gross margins were much better than expected at 36%, versus our expectation of 30%; operating expense were also lower than expected. Given all the moving parts: with a fab closing and minority interest, it has been hard to forecast accurately. Operating expenses came in $3 million less than we expected, and even interest expense was lower than expected by $1.3 million as some of the convertible debt converted or was paid off. The final variation was that the joint venture turned a profit this quarter ahead of our expectations with the help of some one-time adjustments. Rather than subtracting a loss of $2 million the company subtracted the profit of $3.6 million. All this gave us $46 million in net income versus our expectation of $34 million. Thus net income was up 140% year over year.

On the downside however, the share count was up versus our estimates. Primary shares were two million higher than expected and fully diluted shares were 2.2 million higher. Since last year the fully diluted share count is up 19%, which was why fully diluted non-GAAP EPS was up only 83%.

For the quarter, the company reported a GAAP profit of $0.01, and non-GAAP EPS of $0.83. The company does not include convertible debt in its share count. When we use that debt in calculating shares we get 101 million fully diluted shares rather than the 55.6 million the company uses. When we use that number, and subtract out the debt payments for the converts, we get fully diluted non-GAAP EPS of $0.50 higher than the $0.43 we expected. This $0.50 is versus $0.30 last year, and $0.40 sequentially.

For the full year, the company reported a GAAP profit of $0.01. This number does not take out three one time events that greatly affected net income: $55 million for the Nishiwaki plant impairment, $166 million for a gain on the value of the joint venture with Panasonic and $55 million in financing expenses.

While currency has caused problems for many companies of late, TowerJazz is naturally hedged with revenues and expenses mostly within countries and surprisingly currency changes did not affect the quarter materially, nor is it expected to going forward.

The company continues to grow and attract new customers. As it gains experience in revenue per layer it has been able to revise its capacity estimates. Originally it believed it could add another $200-250 million in business to the joint venture above and beyond the volumes required by Panasonic, but after working with customers, they now believe that number could be as high as $300 million with 90% utilization.

The top ten customers (non-Panasonic) grew their business 34% over last year. In 2014 masks into the fab were 6,700 up 64% from 2013. Design wins were also at record highs; 20% higher than in 2013. This portends strong revenues in 2015 and beyond.

Q1 2015

The company gave two points of guidance for Q1 2015:

- Revenues should be $225 million, plus or minus 5%.
- Gross margins should be lower sequentially as revenues will be lower sequentially, although they should trend toward 40% by Q4 2014.

If we use those parameters we can expect the company to earn $0.52 non-GAAP or $0.37 fully diluted non-GAAP in the quarter. This would be versus $0.41 and $0.30 respectively. Revenues would be up 70% year over year, and this will be the last quarter of high revenue growth. We expect fully diluted non-GAAP EPS to be up 26%. Although fully diluted shares should not increase in Q1, the primary shares outstanding should be about 65 million up from 55.6 million in Q4 as a portion of the Series F convertibles converted in February 2015. After Q1, revenue growth will decline back to pre-joint venture levels.

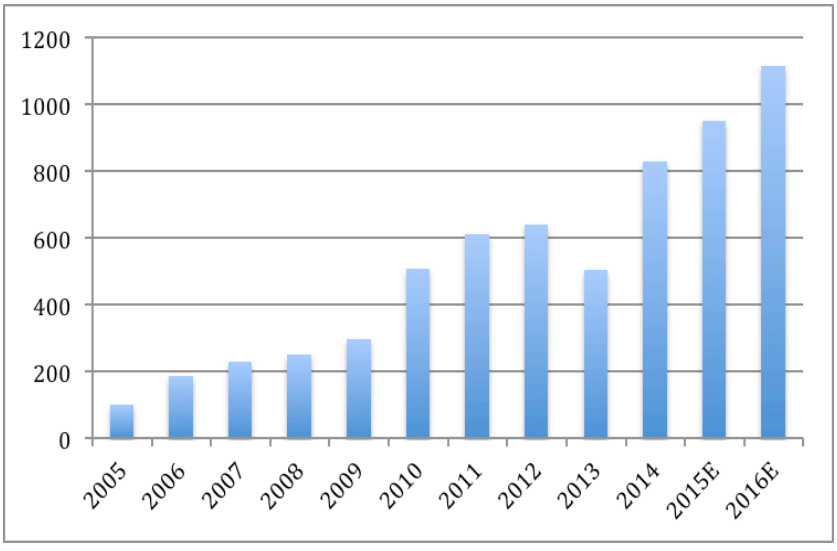
Forecast for 2015

We are lowering **revenues to $950 million, from $970 in 2015 but increasing EPS from $1.88 fully diluted to $2.00.** So while revenues should be up 15%, earnings could increase 25% because of the high fixed cost nature of the business. This revenue is based on 20% internal growth in the TSEM legacy business (minus the lost Micron revenues) combined with the addition of $340-410 million in annualized revenue from Panasonic and an additional new business landed for the TPS joint venture. 2015 however should show an increase of 4 percentage points on gross margin as the result of the closing of the Nishiwaki plant and increase capacity utilization. A 46% increase in net income will be somewhat offset by a 10% increase in fully diluted shares resulting in fully diluted non-GAAP EPS increase of 25%.

2016

We are initiating a 2016 estimate of revenues of $1.2 billion in revenues, up 15% and non-GAAP fully diluted EPS of $2.80 assuming no increase in fully diluted shares outstanding in 2015 and 2016. The company should not need to raise capital but there is always the chance of employee stock being granted. With the naturally increasing margins of the heavily fixed cost business model, much more of the earnings growth should drop to EPS that in the past year. As a result we are looking for non-GAAP fully diluted earnings to accelerate to 40% in 2016.

Chart 1: Annual Revenues



INVESTMENT THESIS

- The closing of the Nishiwaki plant combined with the natural economies of scale of this fixed cost business should expand margins and possibly PE multiples.
- The new fab capacity will allow the company to double revenues and improve margins through capacity utilization. Capacity should be sufficient until 2017, giving the company breathing room to pay off debt and reap profits.
- Having Panasonic as a partner will give the company increased stature in the industry and attract 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 and thus should increase sales.
- 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 quality cameras. In this area its primary competition is Sony, which makes it a preferable source for many companies that compete with Sony.
- The stock trades at a PE multiple of less than 8X 2015 fully diluted non-GAAP 2015 EPS despite revenue growth of 15% and EPS growth expected for next year over 25%.
- We believe that the stock could move to $24 based on blend of enterprise value to sales and PE ratios peer values by next year and rate the stock a buy.

Update on Joint Venture with IBM in India

Once again officials in India have changed. On January 28, 2015, the Indian Cabinet approved the reconstitution of the empowered committee on setting up of semiconductor wafer fabrication (FAB) projects. Although letters of intent were issued last March, nothing new has been heard by the company from the Indian government lately.

VALUATION

We have valued TowerJazz versus other foundry companies using a multiple of enterprise value to sales. As shown on the chart below, the average company is trading at a valuation of 1.4 to 1.5 times 2014 estimated revenues and last twelve-month sales respectively. In order to compare apples-to-apples though, we have taken out the 49% of revenues afforded to the Panasonic joint venture that TowerJazz does not own. That reduces the 2016 revenue number to $942 million.

Foundry Companies

Company	Ticker	Revenue 2015E	Revenue LTM	EBIDTA Margin	Enterprise Value / Sales 2015E	Enterprise Value / Sales LTM
Advanced Semiconductor	ASX	$7,820	$7,750	21%	1.6x	1.6x
Semiconductor Manufacturing	SMI	$2,160	$1,980	34%	1.5x	1.7x
Taiwan Semiconductor	TSM	$27,750	$24,380	65%	4.4x	5.0x
United Microelectronics	UMC	$5,030	$4,470	34%	1.0x	1.2x
Average				**30%**	**1.4x**	**1.5x**

	Revenue* 2016E	Revenue* LTM	EBITDA Margin	Enterprise Value / Sales 2016E	Enterprise Value / Sales LTM
Tower Jazz	**$921**	**$678**	**18.60%**	**1.4x**	**1.5x**
YoY growth	**23%**				

Conclusion of Enterprise Value	**$1,146,466,608**
Market Value	**$1,146,266,689**
Shares Outstanding	65,000,000
Price per Share	**$17.63**

* Adjusted for minority revenues

To calculate TSEM's market value requires we add the cash on the balance sheet and subtract the short and long-term debt. As of December 31, 2014, that would be $1.2 billion - $187 million in cash and equivalents + ($120 +$267) million in debt. Since the company no longer separates the debentures from long-term debt, we are using primary shares since diluted shares would be double counting the converts.

Using a comparable valuation of 1.4 to 1.5 times sales, and looking at 2016 adjusted sales; we come up with a value of $17.63 per share that is 12% higher than today's price.

Valuation by PE Multiple versus Comparables

Another way to value TSEM is by looking at PE multiple versus other foundry companies. Using the same group of companies as above we see the average PE is 15 times. Were we to apply that multiple to TSEM's estimated 2015 fully diluted non-GAAP EPS of $2.00; this would result in a valuation of $30. Looking forward to 2016, should TSEM reach our estimate of $2.80 the stock could be worth $42 on a PE basis if current multiples still apply.

Foundary Companies

Company	Ticker	EPS 15	EPS 16	Price	PE 2015	PE 2016	Growth Rate
Advanced Semiconductor	ASX	$0.57	NA	$7.28	12.8	NA	NA
Semiconductor Manufacturing	SMI	0.19	0.18	4.32	22.7	24.0	-5%
Taiwan Semiconductor	TSM	1.91	2.19	25.04	13.1	11.4	15%
United Microelectronics	UMC	0.20	0.19	2.47	12.4	13.0	-5%
Average					15.2	16.1	1.5%

Using the two methods we can get a blended valuation. We believe the PE multiple method should be discounted for uncertainty of the estimate as well as the fact the non-GAAP numbers at TSEM takes out depreciation while the comparables do not. We believe a reasonable near price target for TSEM is $24.

INCOME STATEMENT

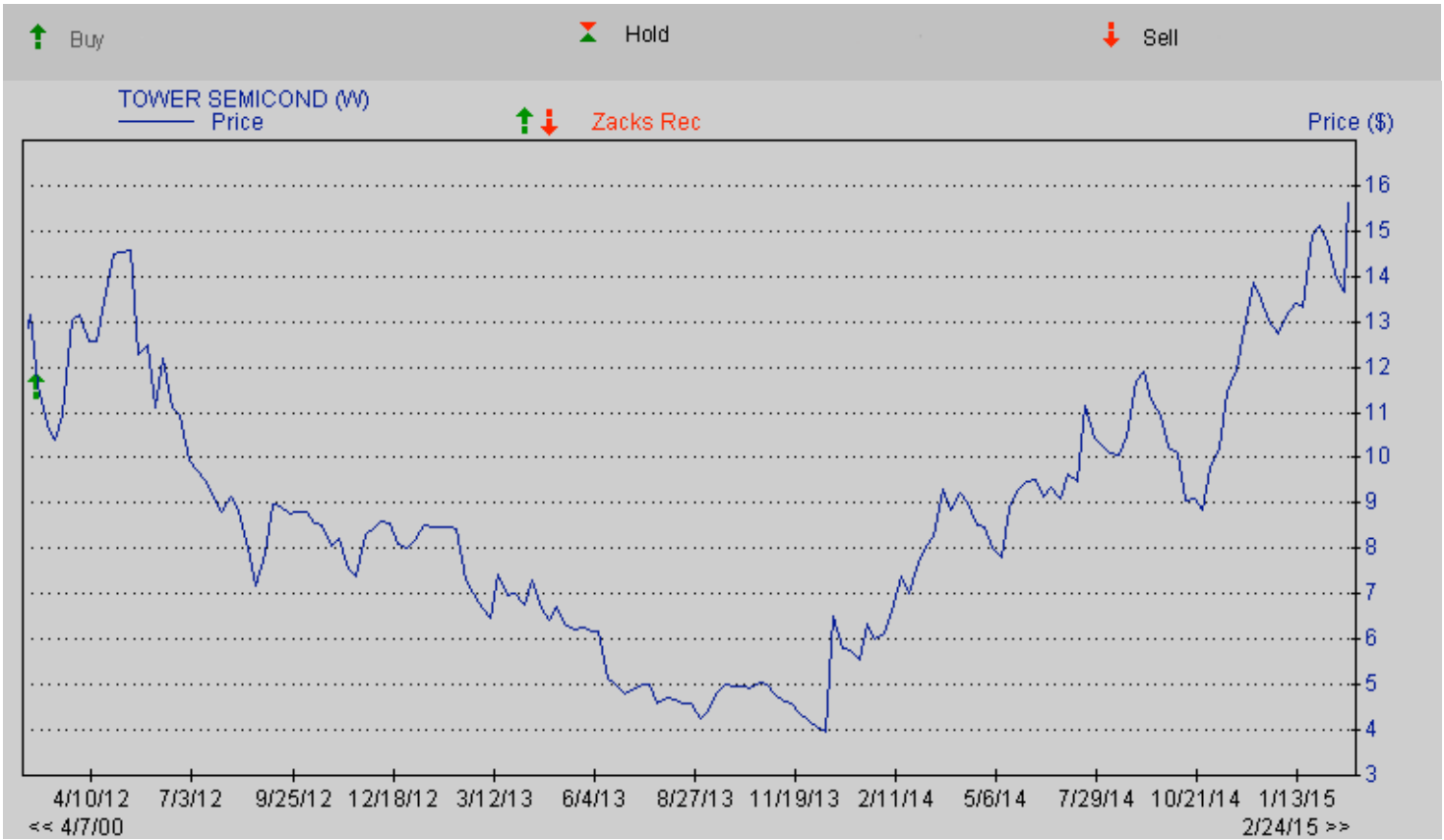
	March Q1 14A	June Q2 14A	Sept Q3 14A	Dec Q4 14A	March Q1 15E	June Q2 15E	Sept Q3 15E	Dec Q4 15E	Non-GAAP 2013	Non-GAAP 2014A	Non-GAAP 2015E	Non-GAAP 2016E
REVENUE												
Net Revenue	132.7	234.1	226.0	235.3	225.0	230.0	240.0	255.0	505.0	828.0	950.0	1,115.5
Yr-to-yr Gr.	18%	87%	70%	75%	70%	-2%	6%	8%	-21%	64%	15%	17%
OPERATING EXPENSES												
Cost of goods sold	88.2	171.7	158.2	151.1	156.0	152.0	151.0	152.6	341.9	569.1	611.6	666.6
Gross Margin	44.5	62.4	67.8	84.2	69.0	78.0	89.0	102.4	163.2	258.9	338.4	448.9
% of Sales	33.5%	26.7%	30.0%	35.8%	30.7%	33.9%	37.1%	40.2%	32.3%	31.3%	35.6%	40.2%
R&D	7.2	13.7	15.4	13.7	13.8	13.9	14.1	14.3	32.5	50.0	56.1	58.3
M, G&A	9.9	15.6	15.0	14.6	14.5	14.8	15.1	15.6	40.5	55.1	60.0	62.2
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
Tot Operating Exp.	17.0	29.3	30.4	28.3	28.3	28.7	29.2	29.9	73.0	105.0	116.1	120.5
Operating Income	27.5	33.1	37.4	55.9	40.7	49.3	59.8	72.5	90.1	153.9	222.3	328.4
Operating Margin	21%	14%	17%	24%	18%	21%	25%	28%	18%	19%	23%	29%
Yr-to-yr Gr.	84%	29%	77%	101%	48%	49%	60%	30%		19%	23.4%	29.4%
Net Interest	(8.1)	(8.8)	(8.7)	(7.8)	(6.8)	(6.8)	(6.8)	(6.8)	(33.0)	(33.4)	(27.3)	(16.2)
Other income	0.1	0.1	(0.4)	0.0	0.0	0.0	0.0	0.0	(0.9)	(0.1)	0.0	0.0
Minority Income	0.0	6.7	2.5	(3.6)	(0.5)	(1.5)	(2.0)	(3.0)	0.0	5.6	(7.0)	(28.0)
Pretax Income	19.5	31.1	30.9	44.5	33.9	41.0	51.0	62.7	56.3	126.0	188.0	284.2
	14.7%	13.3%	13.7%	18.9%	15.1%	17.8%	21.2%	24.6%	11.1%	15.2%	19.8%	25.5%
Taxes	0.0	0.0	0.0	(1.4)	0.2	0.5	0.7	1.1	0.2	(1.6)	2.5	9.8
Tax Rate	0.0%	0.0%	0.0%	-3.2%	0.5%	1.3%	1.4%	1.7%	0.3%	-1.2%	1.3%	3.4%
Net Income	19.5	31.1	30.9	45.9	33.7	40.5	50.3	61.6	56.1	127.5	185.6	274.4
Yr-to-yr Gr.	201%	188%	153%	140%	73%	30%	63%	34%	-57%	127%	46%	48%
Adj Non-GAAP EPS-Basic	$0.41	$0.62	$0.58	$0.83	$0.52	$0.62	$0.77	$0.94	$1.42	$2.46	$2.84	$3.82
Adj Non-GAAP EPS-Fully dil.	**$0.30**	**$0.41**	**$0.40**	**$0.50**	**$0.37**	**$0.44**	**$0.54**	**$0.65**	**$0.97**	**$1.61**	**$2.00**	**$2.80**
Yr-to-yr Gr.	95%	68%	87%	69%	26%	7%	36%	30%	-63%	65%	25%	40%
Share Out	48.1	50.1	53.2	55.6	65.0	65.2	65.4	65.6	39.6	51.8	65.3	71.8
Fully diluted shares (w/ converts)	81.2	89.1	92.2	101.6	101.0	101.0	101.0	101.0	76.1	91.8	101.0	101.0
	13%	43%	17%	28%	24%	13%	10%	-1%	53.4%	20.6%	10.0%	0.0%

BALANCE SHEET

$ in thousands	Dec. 31, 2014	Dec. 31, 2013	
CURRENT ASSETS			
Cash and cash equivalents	**$187,167**	**$112,871**	66%
Interest bearing deposits, including designated deposits	0	10,000	-100%
Trade accounts receivable	99,166	80,316	23%
Other receivables	5,759	10,943	-47%
Inventories	87,873	64,804	36%
Other current assets	14,119	11,480	23%
Total current assets	**394,084**	**290,414**	36%
LONG-TERM INVESTMENTS	11,896	14,494	-18%
PROPERTY AND EQUIPMENT, NET	419,111	350,039	20%
INTANGIBLE ASSETS, NET	42,037	32,393	30%
GOODWILL	7,000	7,000	0%
OTHER ASSETS, NET	10,018	11,547	-13%
TOTAL ASSETS	884,146	705,887	25%
CURRENT LIABILITIES			
Short-term bank debt and current maturities of loans and debentures	**119,999**	**36,441**	229%
Trade accounts payable	98,632	66,358	49%
Deferred revenue and short-term customers' advances	5,478	3,166	73%
Employee related liabilities, Incl. Nishiwaki retirement	59,597	0	
Deferred tax			
Other current liabilities	16,619	33,951	-51%
Total current liabilities	**300,325**	139,916	115%
LONG-TERM DEBT	**267,087**	**316,885**	-16%
LONG-TERM CUSTOMERS' ADVANCES	6,272	7,187	-13%
EMPLOYEE RELATED LIABILITIES	16,699	65,337	-74%
DEFERRED TAX LIABILITY	75,278	13,611	453%
OTHER LONG-TERM LIABILITIES	22,924	21,703	6%
Non-controlling Interest	-9,418		
Total liabilities	688,585	564,639	22%
Non-controlling Interest	-9,418	0	
SHAREHOLDERS' EQUITY	204,979	141,248	45%
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$884,146	$705,887	25%
Current Ratio	1.3	2.1	-37%
Quick Ratio	1.0	1.6	-37%
Debt Percent of Assets	43.8%	50.1%	-13%
Debt to Equity	1.9	2.5	-25%

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