Zacks Small-Cap Research

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TowerJazz

(TSEM-NASDAQ)

TSEM: Raising Earnings Numbers As Margins Wow

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. 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.

Current Recommendation	**Buy**
Prior Recommendation	Hold
Date of Last Change	02/23/2012
Current Price (05/13/15)	$15.27
Target Price	**$22**

SUMMARY DATA

52-Week High	**$17.95**
52-Week Low	**$8.45**
One-Year Return (%)	**80.71**
Beta	**1.35**
Average Daily Volume (sh)	**921,225**
Shares Outstanding (mil)	**77**
Market Capitalization ($mil)	**$1,164**
Short Interest Ratio (days)	**3.32**
Institutional Ownership (%)	**28**
Insider Ownership (%)	**1**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**9.1**
Earnings Per Share (%)	**-10.7**
Dividend (%)	**N/A**
P/E using TTM EPS	**8.1**
P/E using 2015 Estimate	**6.9**
P/E using 2016 Estimate	**5.0**
Zacks Rank	**3**

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	235 E	240 E	247 E	948 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	$0.52 A	$0.52 E	$0.54 E	$0.62 E	$2.20 E
2016					$3.03 E

Income Statement uses fully diluted shares outstanding

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WHATS NEW

Non-Cash Restructuring Charge Masks Huge Margin Improvements

Once again TSEM beat non-GAAP earnings expectations with much higher gross and operating margins. In addition, by eliminating some high interest convertible debt, the company is improving its balance sheet and lowering its cost structure. This quarter TSEM took an $85 million hit to GAAP earnings by accelerating the conversion of $162 million of its Series F convertible debenture. This non-cash expense (called accelerated accretion and amortization from accelerated conversion of the Series F debentures) caused reported GAAP earnings to be a loss of $1.15, versus a non-GAAP fully diluted $0.52. This was versus GAAP earnings of $0.01 last year and non-GAAP EPS of $0.30. On a non-GAAP fully diluted basis, eliminating all one-time charges and stock-based compensation, earnings were up 75% year over year.

Revenues came in as expected, at $226 million versus $133 million a year ago, up 71%. While much of the growth was due to the Panasonic joint venture, the company grew its base business 33% organically. This is the last quarter of comparison before the joint venture. Next quarter the company is giving midpoint guidance for revenues of $235 million which would be flat with last year's $234 million. This is not to say that EPS will not rise as margins are significantly better and improving as volumes increase and capacity utilization rises.

Gross margins were flat sequentially and up 2.2 percentage points over last year. Operating expenses were up $1.1 million sequentially. The early conversion of debentures saved the company $3.6 million in the quarter as interest on the converted debentures were not paid this quarter. The company now has what it considers an optimal level of debt and plans no further changes except for the natural conversion of debt to equity as holders choose. Since we use fully diluted numbers, this will not change our estimates at any rate.

Non-GAAP net income was $49.5 million versus $19.5 million last year. This was a healthy, albeit untaxed 21% versus a net margin of 15% last year. Net income was up 154% but fully diluted shares increased 26% year over year. As a result non-GAAP fully diluted EPS grew 75%.

For the quarter, the company reported a GAAP loss of $1.15, and non-GAAP EPS of $0.78 using primary shares. The company does not include convertible debt in its share count. When we use that debt in calculating shares we get 102 million fully diluted shares rather than the 77 million the company uses. When we use that number, and subtract out the debt payments of $3.6 million for the converts, we get fully diluted non-GAAP EPS of $0.52, much higher than the $0.37 we expected. This $0.52 is versus $0.30 last year, and $0.50 sequentially.

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

The top ten customers (non-Panasonic) grew their business 34% over last year.

Q2 2015

The company gave two points of guidance for Q1 2015:

- Revenues should be $230 million, plus or minus 5%.

- Gross margins should be higher sequentially and should trend toward 40% by Q4 2014. The target goal for gross margins is 50%.

If we use those parameters we can expect the company to earn $0.66 non-GAAP or $0.52 fully diluted non-GAAP in the quarter. This would be versus $0.22 and $0.41 respectively. Revenues could be flat. Part of the reason for this is there were still revenues from Micron in Q2 of 2014 making comparisons more difficult. We expect fully diluted non-GAAP EPS to be up 27%. According to the press release of yesterday, the current primary share count is 77 million since a portion of the Series F convertibles converted in February 2015. Clearly the rapid growth caused by the TPSCo joint venture is behind us and the company will grow organically going forward.

Forecasts

We are raising our annual earnings estimates for 2015 from $2.00, to $2.20, due to unexpectedly high margins. Revenues remain the same. This would be EPS growth of 37% on a fully diluted non-GAAP basis. For 2016, we are also keeping revenues the same and raising non-GAAP fully diluted EPS to $3.03 from $2.80. We are optimistic that revenues could accelerate as the company's products are going into high growth markets. Its biggest dollar segment is its RF business, which sells to smartphone and telecom infrastructure. This market grows even faster than the smartphone market as more of these chips are being used per handset. The company is having good success penetrating the Chinese market, as there is some product shortage. Also being sold to handset manufactures are its offerings in high megapixel smartphone camera chips. Additionally, the company is well-positioned to serve the Internet of Things (IoT) market as sensors are needed to control these devices once they are connected to the Internet. Gesture control is another market that should exhibit high growth. TSEM has already signed Intel as a customer for this and another unnamed company. Since these markets are nascent, we are optimistic that volume production will follow in coming years.

INVESTMENT THESIS

- The current 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 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.
- 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.
- The company should have revenue growth of 15% and non-GAAP EPS growth for next year over 37%. The company trades at 5.1xs enterprise value to its EBITDA run rate, below its peer group that is valued at an average of 6.7xs.
- We believe that the stock could move to $22 based on blend of enterprise value to sales and multiple of EBITDA ratios versus peer values by next year and rate the stock a buy.

Update on Joint Venture with IBM in India

Since January 28, 2015, when the Indian Cabinet approved the reconstitution of the empowered committee on setting up of semiconductor wafer fabrication (FAB) projects, nothing new has been heard by the company from the Indian government. Although there does not seem to be any roadblocks, the government is not progressing. TSEM said that there would be a meeting scheduled with the Indian government by one of its partners to check the progress.

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 2.1 to 2.2 times 2015 estimated revenues and last twelve-month sales respectively. In order to compare apple-to-apple though, we have taken out the 49% of revenues we estimate are afforded to the Panasonic joint venture, as TowerJazz only owns 51%. If we estimate that approximately half of 2015 revenues will be in the JV that reduced the 2016 revenue number to $842 million.

Tower Jazz
Foundry Companies

	Ticker	Revenue		EBIDTA	Enterprise Value / Sales	
Company		2015E	LTM	Margin	2015E	LTM
Advanced Semiconductor	ASX	$9,700	$8,500	14%	1.3x	1.4x
Semiconductor Manufacturing	SMI	$2,150	$2,030	27%	1.7x	1.8x
Taiwan Semiconductor	TSM	$27,500	$27,190	65%	4.4x	4.4x
United Microelectronics	UMC	$4,990	$4,740	34%	1.0x	1.1x
Average				**35%**	**2.1x**	**2.2x**

	Revenue*		EBITDA	Enterprise Value / Sales	
	2016E	LTM	Margin	2016E	LTM
Tower Jazz	**$842**	**$730**	**21.00%**	**2.1x**	**2.2x**

Conclusion of Enterprise Value	**$1,684,865,951**
Market Value	**$1,567,774,326**
Shares Outstanding	77,000,000
Price per Share	**$21.88**

* 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 March 31, 2015, that would be $1.26 billion + $108 million in net cash and

equivalents - $266 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 2.1 to 2.2 times sales, and looking at 2016 adjusted sales; we come up with a value of $21.88 per share by 2016 that is 43% higher than today's price.

Valuing Based on EBITDA

The same peer group as above trades at 6.7x enterprise value to EBITDA. TSEM should generate about $200 million in EBITDA this year and $300 million next year. Using the 6.7 multiple, the company should have an enterprise value of $2 billion, which corresponds to a stock price of $24.50.

Foundry Companies

Company	Ticker	Ent. Value	EBITDA	EV/EBITDA
Advanced Semiconductor	ASX	12,250	$1,202	10.2
Semiconductor Manufacturing	SMI	3,680	$553	6.7
Taiwan Semiconductor	TSM	120,400	$17,674	6.8
United Microelectronics	UMC	5,210	$1,626	3.2
Average				**6.7x**

Target Price is Blend of Both Methods

Since TSEM takes depreciation and amortization out of its non-GAAP numbers we feel using a PE is a controversial methodology of valuing the company. But enterprise value to sales and EBITDA multiple should be valid. Taking a blend of those two methods we are going with a $22 price up from our $20 price target as the company becomes more profitable and is able to bring greater cash flow to the bottom line.

INCOME STATEMENT

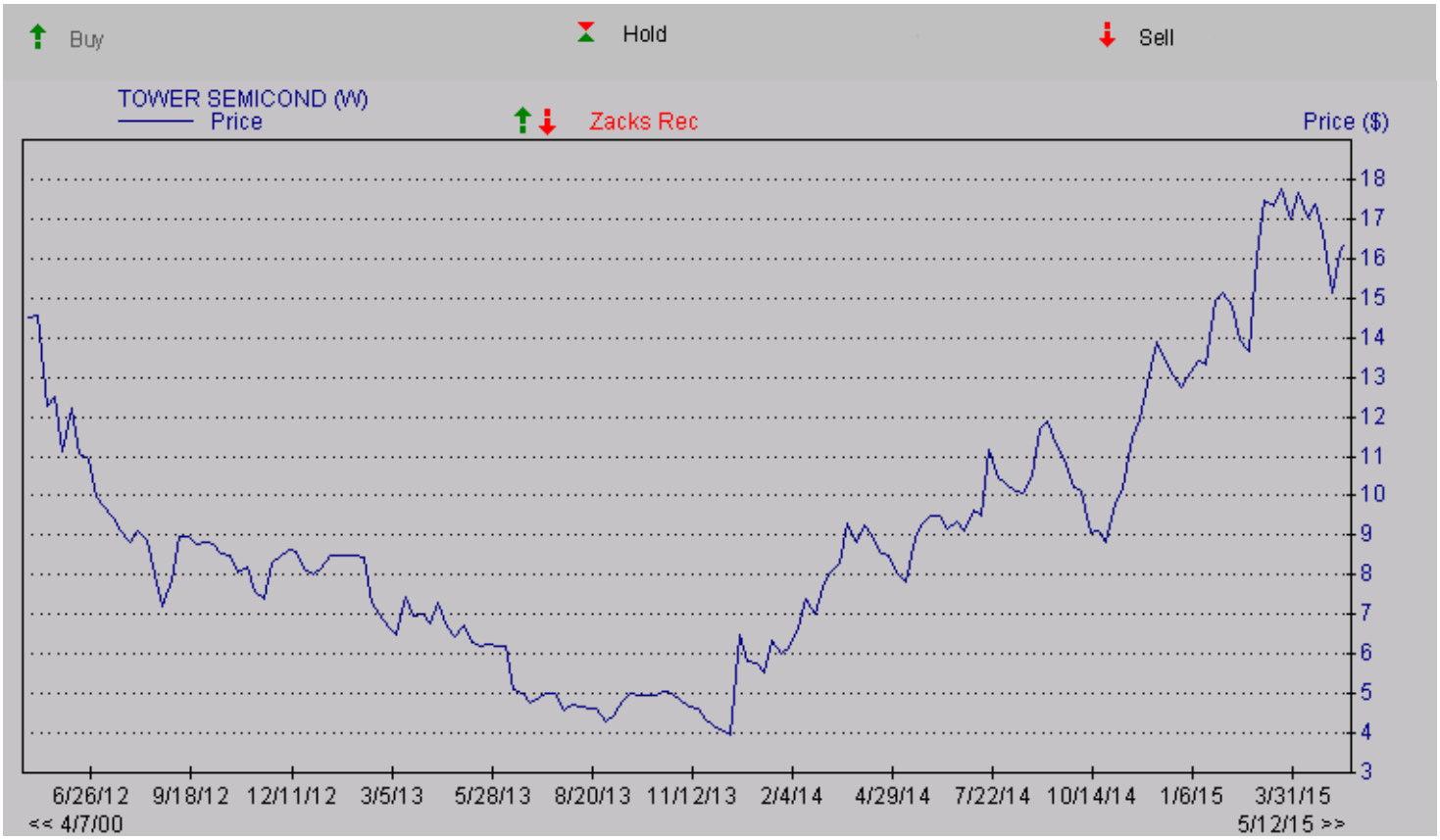
	March Q1 14A	June Q2 14A	Sept Q3 14A	Dec Q4 14A	March Q1 15	June Q2 15E	Sept Q3 15E	Dec Q4 15E	Non-GAAP 2013	Non-GAAP 2014A	Non-GAAP 2015E	Non-GAAP 2016E
REVENUE												
Net Revenue	132.7	234.1	226.0	235.3	226.2	235.0	240.0	247.0	505.0	828.0	948.2	1,115.5
Yr-to-yr Gr.	18%	87%	70%	75%	71%	0%	6%	5%	-21%	64%	15%	18%
OPERATING EXPENSES												
Cost of goods sold	88.2	171.7	158.2	151.1	145.5	151.0	154.0	149.5	341.9	569.1	600.0	654.0
Gross Margin	44.5	62.4	67.8	84.2	80.7	84.0	86.0	97.5	163.2	258.9	348.2	461.5
% of Sales	33.5%	26.7%	30.0%	35.8%	35.7%	35.7%	35.8%	39.5%	32.3%	31.3%	36.7%	41.4%
R&D	7.2	13.7	15.4	13.7	14.4	14.5	14.6	14.7	32.5	50.0	58.2	60.0
M, G&A	9.9	15.6	15.0	14.6	14.9	15.0	15.1	15.2	40.5	55.1	60.2	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	29.4	29.5	29.7	29.9	73.0	105.0	118.5	122.2
Operating Income	27.5	33.1	37.4	55.9	51.3	54.5	56.3	67.6	90.1	153.9	229.8	339.3
Operating Margin	21%	14%	17%	24%	23%	23%	23%	27%	18%	19%	24%	30%
Yr-to-yr Gr.	84%	29%	77%	101%	87%	65%	51%	21%		19%	24.2%	30.4%
Net Interest	(8.1)	(8.8)	(8.7)	(7.8)	(3.6)	(2.0)	(3.6)	(2.0)	(33.0)	(33.4)	(11.2)	(11.2)
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)	2.3	(1.0)	(1.2)	(3.1)	0.0	5.6	(3.0)	(20.0)
Pretax Income	19.5	31.1	30.9	44.5	50.0	51.5	51.5	62.5	56.3	126.0	215.5	308.1
	14.7%	13.3%	13.7%	18.9%	22.1%	21.9%	21.5%	25.3%	11.1%	15.2%	22.7%	27.6%
Taxes	0.0	0.0	0.0	(1.4)	0.5	0.4	0.4	1.1	0.2	(1.6)	2.3	7.0
Tax Rate	0.0%	0.0%	0.0%	-3.2%	0.9%	0.7%	0.8%	1.7%	0.3%	-1.2%	1.1%	2.3%
Net Income	19.5	31.1	30.9	45.9	49.5	51.2	51.1	61.5	56.1	127.5	213.2	301.1
Yr-to-yr Gr.	201%	188%	153%	140%	154%	65%	65%	34%	-57%	127%	67%	41%
Adj Non-GAAP EPS-Basic	$0.41	$0.62	$0.58	$0.83	$0.78	$0.66	$0.66	$0.79	$1.42	$2.46	$2.89	$3.88
Adj Non-GAAP EPS-Fully dil.	**$0.30**	**$0.41**	**$0.40**	**$0.50**	**$0.52**	**$0.52**	**$0.54**	**$0.62**	**$0.97**	**$1.61**	**$2.20**	**$3.03**
Yr-to-yr Gr.	95%	68%	87%	69%	75%	27%	35%	24%	-63%	65%	37%	38%
Share Out	48.1	50.1	53.2	55.6	63.6	77.0	77.2	77.4	39.6	51.8	73.8	77.5
Fully diluted shares (w/ convert	81.2	89.1	92.2	101.6	102.0	102.0	102.2	102.4	76.1	91.8	102.2	102.0
	13%	43%	17%	28%	26%	14%	11%	1%	53.4%	20.6%	11.3%	-0.1%

BALANCE SHEET

$ in thousands	March 31, 2015	Dec. 31, 2014	
CURRENT ASSETS			
Cash and cash equivalents	**$134,216**	**$187,167**	-28%
Interest bearing deposits, including designated deposits	0	0	
Trade accounts receivable	105,491	99,166	6%
Other receivables	7,408	5,759	29%
Inventories	86,153	87,873	-2%
Other current assets	20,314	14,119	44%
Total current assets	**353,582**	**394,084**	-10%
LONG-TERM INVESTMENTS	11,785	11,896	-1%
PROPERTY AND EQUIPMENT, NET	408,513	419,111	-3%
INTANGIBLE ASSETS, NET	41,225	42,037	-2%
GOODWILL	7,000	7,000	0%
OTHER ASSETS, NET	6,391	10,018	-36%
TOTAL ASSETS	828,496	884,146	-6%
CURRENT LIABILITIES			
Short-term bank debt and current maturities of loans and debentures	**26,721**	**119,999**	-78%
Trade accounts payable	108,616	98,632	10%
Deferred revenue and short-term customers' advances	8,112	5,478	48%
Employee related liabilities, Incl. Nishiwaki retirement	44,059	59,597	-26%
Deferred tax			
Other current liabilities	15,043	16,619	-9%
Total current liabilities	**202,551**	**300,325**	-33%
LONG-TERM DEBT	**225,841**	**267,087**	-15%
LONG-TERM CUSTOMERS' ADVANCES	6,181	6,272	-1%
EMPLOYEE RELATED LIABILITIES	15,973	16,699	-4%
DEFERRED TAX LIABILITY	75,854	75,278	1%
OTHER LONG-TERM LIABILITIES	10,057	22,924	-56%
Non-controlling Interest	-9,418	-9,418	0%
Total liabilities	536,457	688,585	-22%
Non-controlling Interest	-9,418	-9,418	0%
SHAREHOLDERS' EQUITY	292,039	204,979	42%
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$828,496	$884,146	-6%
Current Ratio	1.7	1.3	33%
Quick Ratio	1.3	1.0	29%
Debt Percent of Assets	30.5%	43.8%	-30%
Debt to Equity	0.9	1.9	-54%

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