Tower Semiconductor Ltd. | TSEM

INVESTMENT RESEARCH REPORT

"Leaning Tower of Losses"

RECOMMENDATION: *Strong Sell*

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Executive Summary

Spruce Point Is Short Tower Semiconductor ("TSEM") For The Following Reasons:

1 **Questionable Business Strategy**: In our opinion, Tower is a collection of old semi foundries cobbled together from acquisitions, which produce significantly below industry average GAAP gross margins (from 2012-2014 Tower 9% vs. 23% peer average). Having gone through numerous financial restructurings in the past, Tower promotes large revenue goals reaching $1bn, and a large Non-GAAP EPS headline of questionable merit, but has amassed ($695m) of negative cumulative free cash flow since 2004! Not having the capital support or free cash flows to fund the large capex requirements to compete in the semiconductor manufacturing industry, Tower spends just 15% of sales on capex vs. peers at 40% of sales. Its recent deals (e.g. Micron and Panasonic) reflect a short-term business strategy designed to bolster revenue growth for short periods, which allow its partners to sunset aged product cycles. It also allows Tower to book abnormal bargain purchase gains and trumpet the potential for new revenue sources from selling unused fab capacity. However, Tower's recent write-down of its acquired Japanese fab from Micron should be a warning sign of the pitfalls inherent in Tower's business strategy. Micron, once a key purchaser of product from Tower, now no longer buys product from it – one example that Tower is not participating in declining industry growth other than picking up old fab facilities. The Panasonic deal shocked Spruce Point: Tower marks the JV at a 250%+ premium to that of Panasonic's valuation

2 **Punitive Equity Deals Hurt Shareholder Value**: Acquiring revenues has come at a steep cost to shareholders: Since 2005, Tower's share count has increased 33% p.a., outpacing revenue growth of 25% p.a. Its recent deals with Micron, Panasonic, and Maxim have each entailed significant equity issuances, and, in our opinion, reflect Tower's dependence on propagating its share price to support deal activity. Not surprisingly, Tower has had difficulty maintaining a stable roster of shareholders. All of its earlier strategic shareholders (Sandisk, Alliance Semi, Macronix, Toshiba, QuickLogic) in the development of its second Israeli fab have sold, and its two largest Israeli shareholders (Israel Corp and Bank Leumi) have liquidated their stock holdings over the past two years (despite maintaining various board positions). Furthermore, the third largest shareholder, Bank Hapoalim, recently reduced its holding. U.S. shareholders should ask themselves do they know Tower better than the Israeli banks which financed it, along with Israel Corp, one of the country's largest holding companies?

3 **Questionable Management, Corporate Governance and Long-Term Alignment With Shareholders**: Tower's CEO mysteriously omits his educational achievements, which suggests he did not even graduate from college, and is bizarre for a mature billion dollar semi foundry business. Meanwhile, the CEOs of Tower's key peers all have advanced degrees, many with PhD's. An apparent lack of formal education has not stopped Tower's CEO from overseeing a company that has ravaged shareholders with massive dilution, well-timed stock options at inconsistently defined strike prices, and extravagant compensation and perks. Tower's group of 18 insiders earn a lavish 13% of SG&A expense (up from 6.6% in 2006 and compared with peers at 2 – 7.5%). Management is paid handsomely for promoting in the media that it will earn hundreds of millions a year for investors, issuing frequent press releases touting multimillion and billon $ market opportunities, yet haven't demonstrated any sustained free cash flow in years

Spruce Point Sees Approx. 50% - 75% Downside For The Following Reasons:

4 **Evidence Suggesting Brazen Accounting Scheme To Forestall Bankruptcy Threat**: In 2013 with its stock price at a multi-year low, Tower indicated it had a wall of debt maturities coming due in 2015. Coincidentally, in Dec 2013 Tower announced what it described as a "*momentous*" and "*revolutionary foundry concept*" JV deal with Panasonic which would add $400m+ of revenues. Panasonic's tone was much more muted, and described the transaction as a consequence of difficulty in competing using these very same fab facilities. In our opinion, Tower may have heavily promoted the Panasonic deal to inflate its stock, and convert its Series F debt to equity to relive its debt burden. We have evidence to suggest Tower inflated the value of the JV's assets from approx. $100m to $300m in order to inflate a bargain purchase gain to bolster its equity. Furthermore, Tower has engaged in other questionable accounting maneuvers to give the appearance of strong Non-GAAP gross margins, profitability, and free cash flow such as: 1) Shifting COGS expenses to R&D and SG&A; 2) Changing the presentation of capex from "gross" to "net"; 3) Extending the useful life of its assets to reducing depreciation expense; 4) Excluding depreciation and amortization to present Non-GAAP results (not industry standard); 5) Haircutting its convertible and bank debt by inappropriately interpreting the accounting guidance. It should also be no surprise that Tower's financial reporting and transparency is sub-standard compared with peers. We observe Tower doesn't report key performance metrics and financial details such as 1) Revenue by technology or application; 2) Utilization figures; 3) Allowance for doubtful accounts; 4) Intercompany sales, and; 5) Financial guidance beyond sales among other things

5 **Analyst Misperceptions and Valuation Disconnect**: Analysts price targets range from $17 - $28 per share (average $22/sh) suggesting 75% upside from the current price. Analysts base these price targets on the assumption that Tower will grow 2016 revenues and Non-GAAP EPS by 13% and 23%, respectively, with larger peers and industry forecasts suggesting low single digit revenue growth, and declining YoY EPS. It is no surprise that analysts' are claiming that Tower's shares are cheap while trading at just 4.2x and 5.8x 2016E P/Non-GAAP EPS and EV/EBITDA, respectively. In our opinion, Tower's Non-GAAP EBITDA and EPS is so highly adjusted with questionable accounting assumptions, that analysts' estimates are practically useless. In our opinion, the true story is that Tower has a speculative business model that does not appear to make money, and appears dependent on issuing its inflated equity to finance transactions with larger industry counterparties. As a result, we view a sales-based multiple as more appropriate for valuing Tower. Its stock is currently trading at a 1.4x 2016E EV/Revenues. Investors should look at recent semi stocks dogged with accounting issues such as Magnachip Semiconductor (NYSE: MX) and Marvel Tech (Nasdaq: MRVL) as appropriate valuation peers. MX, which like Tower also operates outsourced foundry services, recently went through an accounting restatement tied to errors in, among other things, revenue recognition, cost of goods sold, inventory reserves, capitalization, expense recognition and allocation, as well as related business practices, for distributor, non-distributor customers and vendors. Its core business loses money and it trades at 0.5x EV/revenues. Valuing Tower at between 0.5x and 0.8x 2016E revenues gets us a valuation range of approximately $3.00 - $6.00 per share (50 -75% downside). Ongoing shareholder dilution would not be foreign for TSEM's stock.

Brief Overview of Tower Semiconductor

A Collection of Old Semiconductor Manufacturing Facilities of Questionable Value

Original fab acquired from National Semiconductor in 1993

Fab 2 built in 2001 and commenced production in 2003. Original shareholders Toshiba, SanDisk, Alliance Semi, Toshiba, Macronix all liquidate

Fab 3 Acquired from Jazz Technologies in 2008; formerly spun-off from Conexant in 2002

Discarded from Panasonic in 2013 due to competitive issues. TSEM formed a JV with Panasonic and owns 51%

Source: Tower Investor Presentation, August 2015

Spruce Point Capital Management

TSEM's Troubled History, Debt Restructuring

Warning: As a result of TSEM's inability to create free cash flows over time, starting from 2008, the Company engaged in three debt restructuring agreements, 2 of which were with Israeli banks and 1 was conducted by its US subsidiary (JAZZ) with US banks and creditors.

- Sept 2008: $250m debt forgiveness with Israeli banks in exchange for convertible equity at $1.42/share[1] and a $20m equity injection
- In May 2008, TSEM announced it would acquire Jazz Semiconductor in an all-stock deal for an enterprise value of $169m:
  - History: The assets were originally spun-out of Conexant as announced in 2002. Originally called "SpecialtySemi" before changing its name to Jazz Semiconductor, it was backed with capital from The Carlyle Group
  - Acquicor, a special purpose acquisition company (SPAC) raised $173m and in Sept 2006 acquired Jazz for $253m
  - Acquicor's Jazz transaction was noted as a failure, particularly as the SPAC had a roster of big name, successful investors from Apple (Gil Amelio, Steve Wozniak and Ellen Hancock)
  - By 2010, Jazz would need to restructure its debt:
    - June 2010, June 2010, and July 2010: Jazz debt exchange of approximately $80m in aggregate principal amount of its outstanding $123m of 8% convertible senior bonds due 2011 for new non-convertible senior bonds due 2015. In addition, exchanging bond holders received warrants for the purchase of approximately 25 million Tower ordinary shares at an exercise price of $1.70/share[1]
- March 2013: Israeli Bank loan extension, resulting in 2013 and 2014 principal payments being reduced from $105m to $30m. The outstanding loan of $131m, which was originally set to be paid starting September 2013, would be payable in 10 quarterly installments, starting on March 2014 and ending on June 2016
- May 2013: Equity rights offering proposed in the amount of $60m
- Oct 2014: Bank debt refinancing
- March 2015: Accelerated Series F conversion

1) TSEM announced a 15:1 reverse split on 8/2/12

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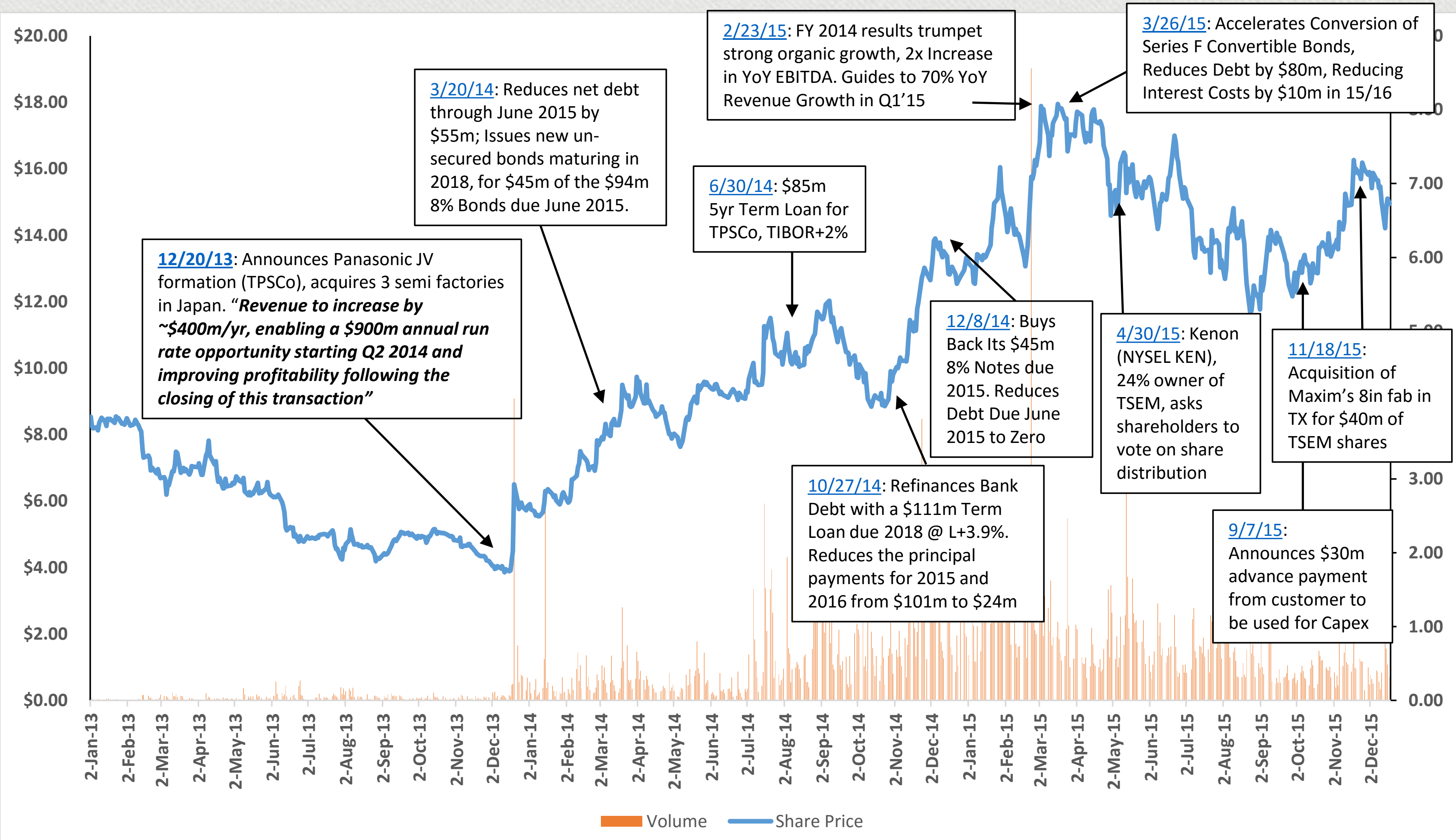
With TSEM's Stock Near An All-time Low in 2013, The Panasonic Deal Ignites A Stock Rally + Chance To Convert High Cost Debt

Our presentation will explore the questionable nature of the Panasonic deal, and the appearance of brazen accounting scheme we believe may have been used to forestall financial calamity



Capital Structure and Valuation

Tower Semiconductor's enterprise value and valuation needs to be correctly adjusted for its true amount of debt outstanding, multitude of dilutive securities, and our estimated value of Panasonic's non-controlling interest (NCI) in TPSCo. As we will illustrate later in our presentation, we believe Tower has taken overt actions to reduce its book value of debt outstanding, and minimize the value of the NCI.

$ in millions, except per share amounts

TSEM Stock Price	$12.50
Diluted Shares Outstanding (1)	104.0
Market Capitalization	**$1,300.0**
Israeli Bank Debt (2)	$91.0
Wells Fargo Line (3)	$20.0
TPSCo Japanese Loan A	$73.0
TPSCo Japanese Loan B (4)	$70.0
Series F Convertible Debenture	$0.8
Series D Debentures	$5.8
Jazz Senior Notes	$58.6
Total Financial Obligations	**$319.2**
Plus: Non-controlling interest (5)	$100.0
Less: Cash and Equivalents	($155.3)
Enterprise Value (EV)	**$1,563.9**

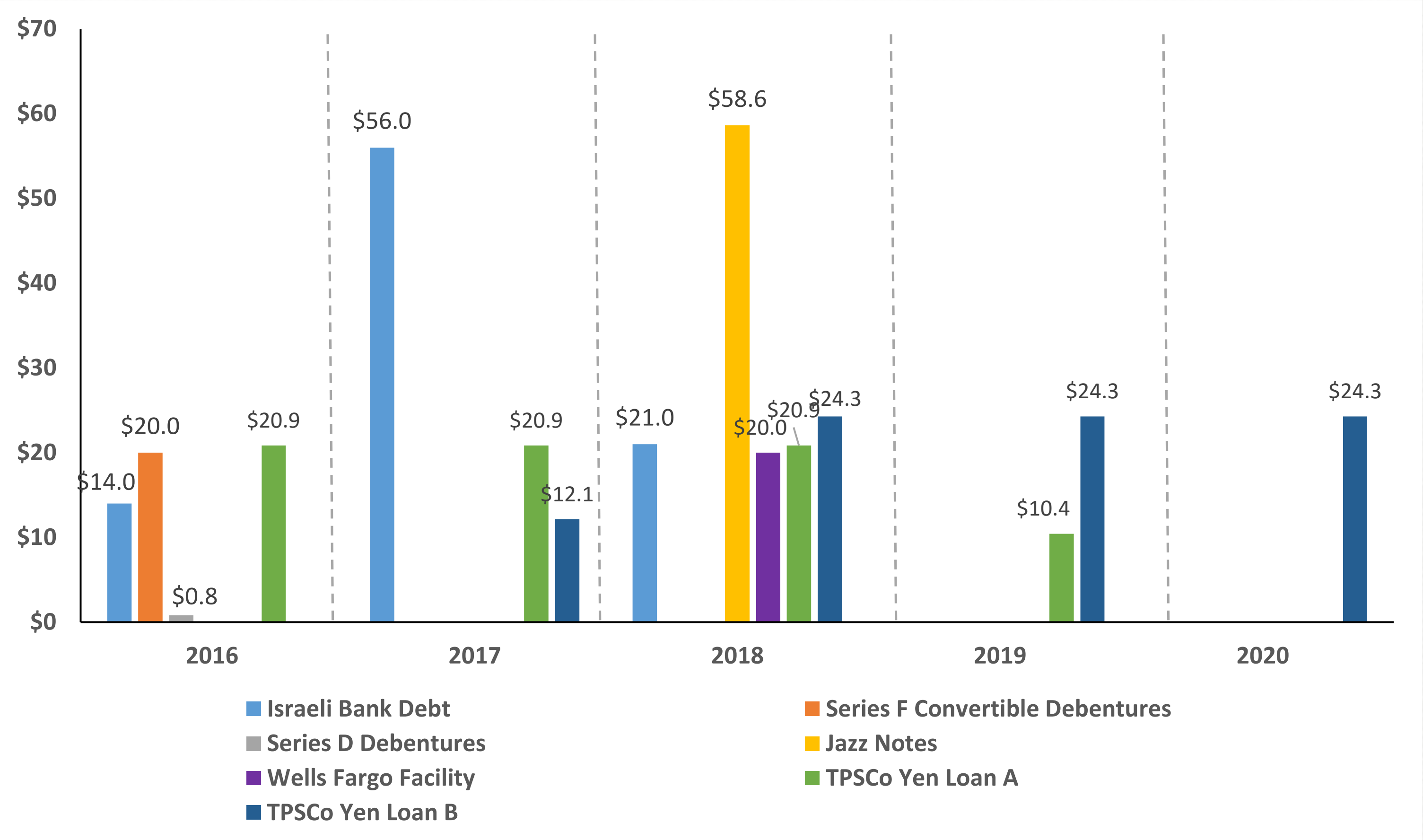
	FY Ended 12/31		
Valuation Metrics	**2015E**	**2016E**	**2017E**
EV / Sales	1.6x	1.4x	1.3x
EV / Adj. EBITDA	6.3x	5.8x	5.2x
Price / GAAP EPS	NM	9.2x	6.1x
Price / Non-GAAP Adj. EPS	5.2x	4.2x	3.9x
Credit Metrics			
Debt / Adj. EBITDA	1.3x	1.0x	0.6x

(1) 82.1m outstanding shares (13D filed 1/11/16), 3.1m shares to be issued to Maxim, 13m possible shares underlying options and warrants, 3m underlying debentures series F, 3m underlying capital notes.
(2) Assumes $10m debt reduction from FY 2014 amount outstanding of $101m
(3) Balance outstanding per Jazz Technologies, Inc 10Q filing on 9/30/15
(4) Based on Dec 8, 2015 Press Release
(5) Based on the mid point of our adjusted estimate for the true value of the non-controlling interest (see: Slide), less approx. $40m of estimated accumulated losses

Debt Maturity Profile

Warning: Significant near-term maturities due in the next three years
2016: $55m 2017: $89m 2018: $144m

$ in millions



Source: Tower Financials and Recent TPSCo Term Loan Announcement (Dec 2015)

A Business Model Appearing To Be In Peril

TSEM's Business Issues

- TSEM operates in the semiconductor manufacturing sector, an industry characterized by extreme price competition, short product cycles leading to rapid product obsolescence, and high capital intensity. It competes against lean and efficient global players. While all of TSEM's manufacturing facilities are located in developed countries (Israel, US, Japan), in which the operating expenses, including costs of workforce and maintenance, are relatively high, the manufacturing facilities of its direct competitors are located in lower cost geographies such as China, Taiwan, Korea and Malyasia
- As illustrated in the table below, TSEM's margins are, and have been for a long time, significantly lower than those of comparable companies:

Key Financial Metrics	Taiwan Semi.	United Micro.	Semi. Mfct Int'l	Vanguard Int'l Semi.	Dongbu Hitek	Average	Tower Semi.
Avg Gross Margin	48%	19%	22%	31%	19%	**28%**	9%
Avg EBITDA Margin	63%	34%	35%	34%	N/A	**42%**	23%

Source: Average reported financial results from 2012-2014 per each company

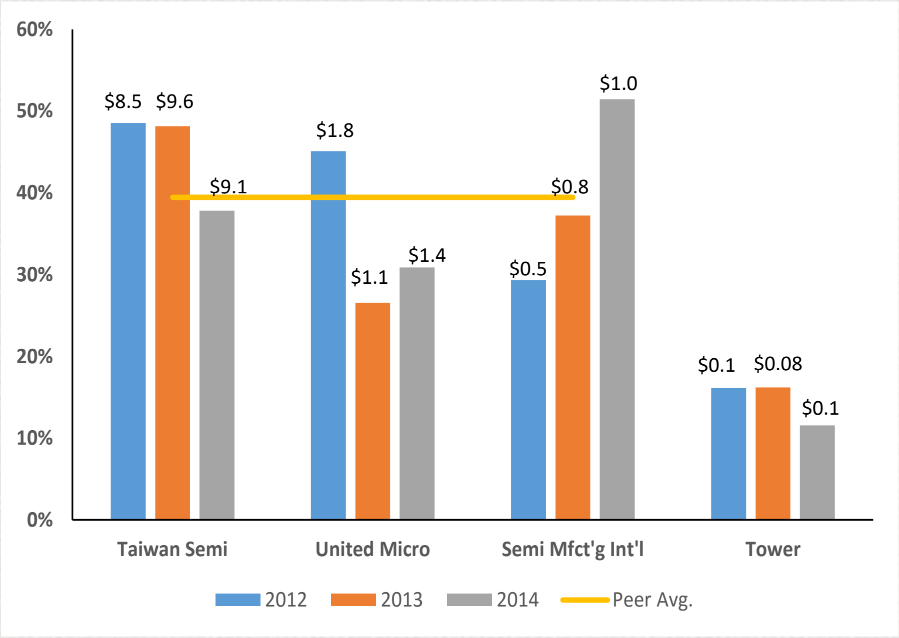
- TSEM's business strategy revolves around purchasing old and outdated fabrication facilities in developed countries. In the short period following the purchase, the sellers keep providing orders over the duration of the remaining product life cycles, and by doing so covers some of the fixed operating costs
- Tower has to prove it can bring new customers to these facilities, to absorb significant unused capacity, while it carries a high fixed-cost burden of operation (and in certain cases, unionized elder workforce where TSEM bears the liabilities for retirement and redundancy costs when the assets are retired)
- TSEM's recent Micron deal, which resulted in a shut down of the facility and large impairment costs illustrate the challenges of sustaining this strategy. Its recent Panasonic deal, promoted with great promise, may ultimately result in a similar outcome, and we will explore this transaction in greater detail further in the presentation
- Tower may face challenges implementing its strategy in countries such as China, Taiwan, South Korea or India, where in recent years new fabrication facilities with advanced technologies are being built with massive capital investment and cooperation between some of the big player in the industry

Hard To Compete In A Capex and R&D Intensive Industry

Tower's largest peers spend approximately 40% of annual sales on capex needs (maintenance and growth) and 9% of sales on R&D. With new fabs running into the billions (eg. Taiwan Semi's planned $3bn fab in China), the costs of maintaining competitiveness in the industry are sizeable. Tower has spent approximately 15% of sales on capex and 6% on R&D in the past few years – well below average.

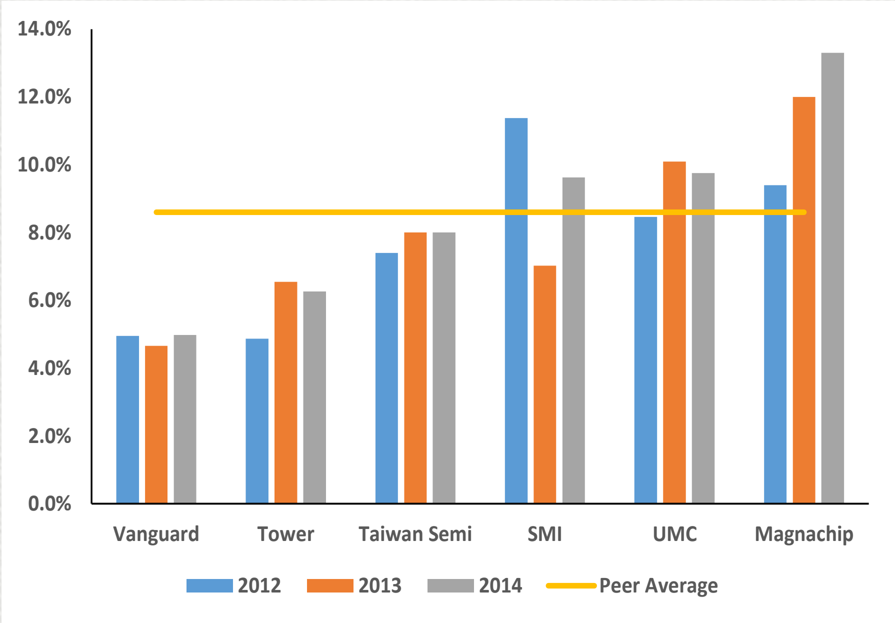
Capex

$ in billions



R&D Margin

% of Revenue



Note: Capex is presented on a gross basis (before any proceeds from asset or property sales).
Source: Company financials

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Focus On Revenue, But What About Profits?

To support our opinion that Tower doesn't really make money, we have included below Tower's first and second slides from its recent investor presentation. Tower is quick to point out its significant revenue growth over the past decade, and recent revenue growth relative to peers. However, what Tower does not focus on are more critical financial metrics investors use to value a company such as EPS, EBITDA, Cash Flow, or Return on Invested Capital (ROIC)

Annual Revenues — 2005–2015*

* Annualized based on Q1&Q2'15 actual, Q3'15 mid-range guidance and Q4'15 company's target

3

TOWERJAZZ The Global Specialty Foundry Leader

Competitive landscape – McClean Report (04.2015)

#1 Specialty Foundry
The fastest growing foundry in the world 2014/13

Leading Pure-Play Foundry Companies

2014 Rank	2013 Rank	Company (Headquarters)	2012 Sales ($M)	12/11 % Change	2012 Share of Total	2013 Sales ($M)	13/12 % Change	2013 Share of Total	2014 Sales ($M)	14/13 % Change	2014 Share of Total
1	1	TSMC (Taiwan)	16,951	19%	55%	19,935	18%	56%	24,976	25%	59%
2	2	GlobalFoundries (U.S.)	4,013	26%	13%	4,122	3%	12%	4,355	6%	10%
3	3	UMC Group (Taiwan)	3,730	-1%	12%	3,959	6%	11%	4,350	10%	10%
4	4	SMIC (China)1	1,542	17%	5%	1,962	27%	5%	1,970	0%	5%
5	5	Powerchip (Taiwan)2	0	N/A	0%	1,182	N/A	3%	1,282	8%	3%
6	8	TowerJazz (Israel)	639	5%	2%	505	-21%	1%	828	64%	2%
7	6	Vanguard (Taiwan)	582	12%	2%	713	23%	2%	790	11%	2%
8	7	Hua Hong Semi (China)3	572	N/A	2%	585	2%	2%	685	17%	2%
9	9	Dongbu HiTek (S. Korea)4	526	5%	2%	452	-14%	1%	541	20%	1%
10	12	X-Fab (Europe)	259	-7%	<1%	290	12%	<1%	330	14%	<1%

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TOWERJAZZ The Global Specialty Foundry Leader

Source: Tower Investor Presentation, August 2015

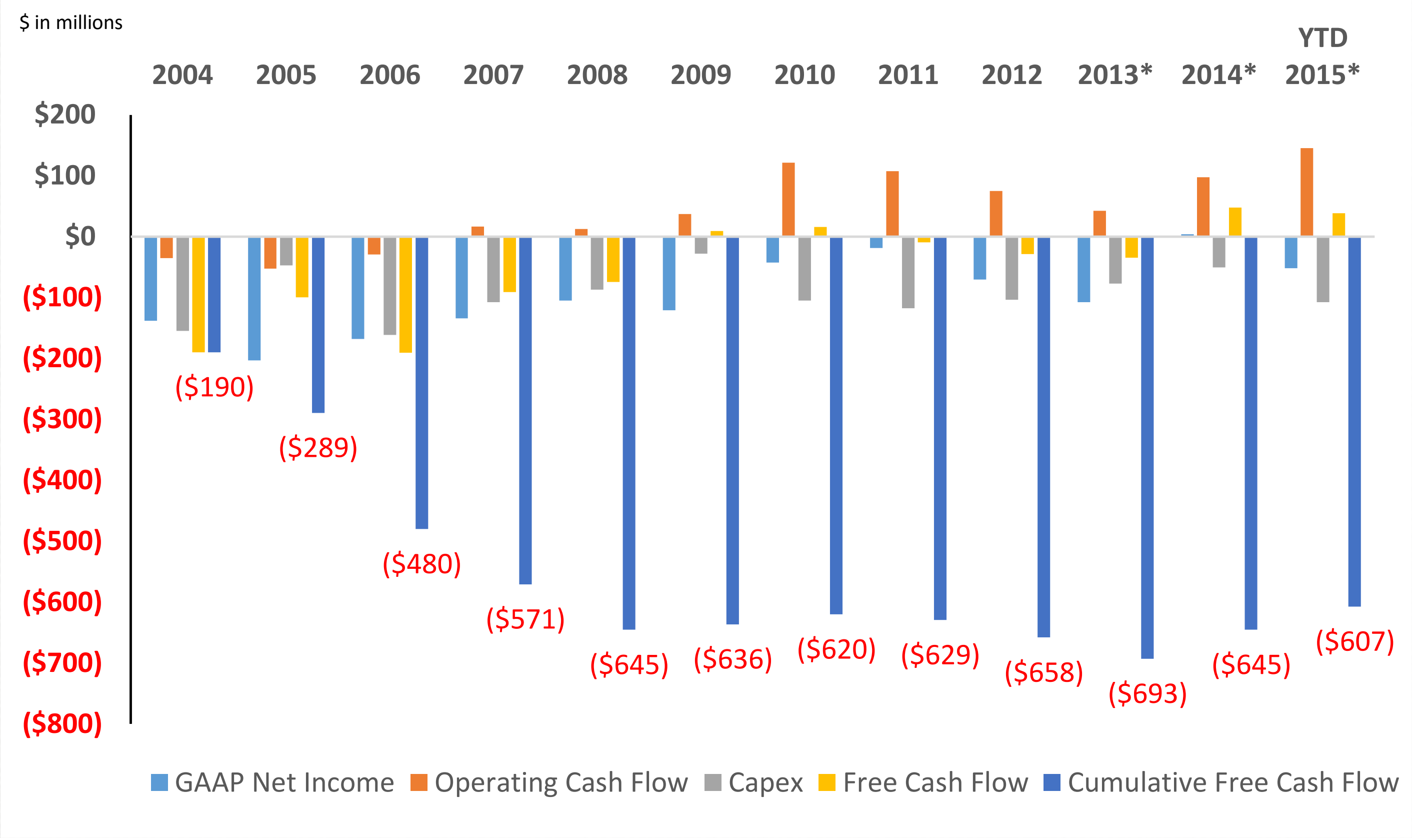
Spruce Point Capital Management

Inability to Generate Free Cash Flow

- TSEM appears to be a struggling company lagging behind the industry that approaches customers who need small batches and/or need chips for products that are at their end of a life cycle. This technological lag leads to TSEM's inability to integrate its products with technologically advanced digital chips, a problem that will only worsen in the future
- In addition, in our opinion TSEM is not an attractive purchase for a potential buyer, as it carries restrictions regarding the transfer and use of intellectual property and know how imposed by the state of Israel who gave the company significant amounts of grants for the construction of its Israeli fabs. Nevertheless, the state of Israel might remove this restriction in order to prevent the company from entering into default and mass layoffs of Israeli workers
- As a result of its business issues, TSEM does not appear to generate free cash flow according to our analysis on the next slide
- TSEM appears to use various subtle financial presentation distortions and accounting gimmicks to cover-up its business problems and its inability to generate free cash flows
- Meanwhile, TSEM frequently trumpets its business dealings with extensive press releases that often tout billion dollar market opportunities (example 1, 2, 3) and its recent Panasonic JV deal (which we will explore in great depth), which it calls "*A Revolutionary Foundry Concept*" (see Sept 2015 Company Presentation) **– still these market opportunities have not generated in cumulative free cash flows**

The Ugly Reality: What TSEM Doesn't Seem To Want To Show …

From 2004 to Q3'15, TSEM reportedly generated cumulative free cash flow losses of $607m.* While it appears that recently reported financial results indicate free cash flow is growing, we will present evidence later in the presentation that suggests TSEM changed its definition of capex from "gross" to "net." This change could be confusing investors and inflating the appearance of free cash flow from 2013-Current.
See this slide for complete details



* TSEM changed its capex presentation from gross to net of PP&E sales. Adjusted FCF for 2013 and 2014 were ($40)m and $3m, respectively. YTD 2015 Adjusted FCF cannot be determined since TSEM does not provide investors details to determine proceeds from sold PP&E. Adjusted Cumulative FCF 2004-2014 is ($695)m
Source: Tower Financials

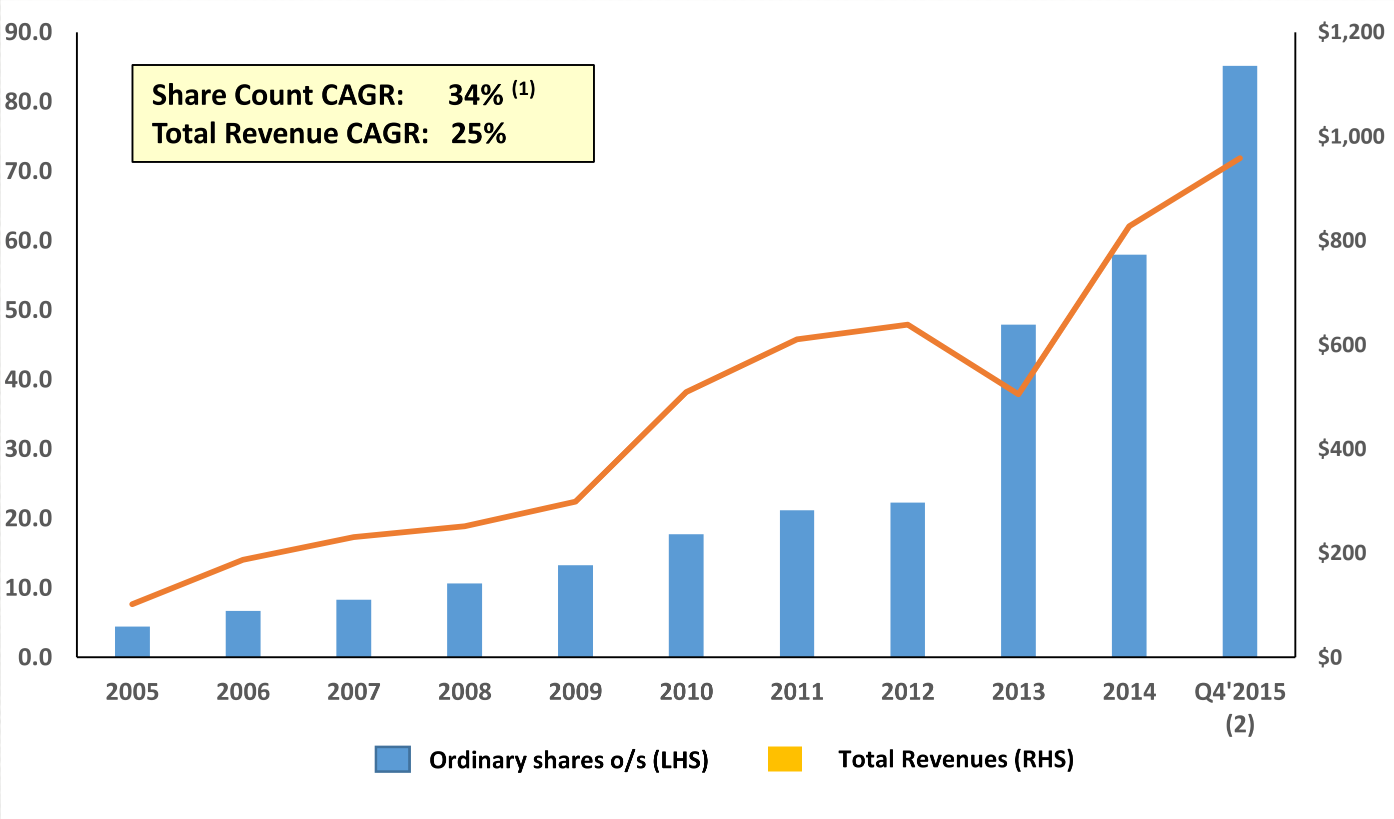
M&A Mostly Equity Funded

- As a result of the company's inability to generate free cash flows over time, all of the company's recent M&A transactions were funded, almost solely, with equity issuance (except for the Micron deal which 2/3 of it was funded with cash):
  - May 2008: JAZZ stock-for-stock deal of approx. $40m
  - April 2011: Micron deal total consideration of $62.6m, of which $40m was cash and the rest was funded with equity issuance of 19.7 million ordinary shares.
  - Dec 2013: Panasonic deal total consideration of $7.4m funded with issuance of 870,454 TSEM ordinary share issuance
  - Nov 2015: Maxim Deal, total consideration of $40m that will be funded with TSEM ordinary share issuance
- The fact that TSEM funds its M&A activity mostly with equity issuance (expensive capital), reveals potential difficulties it faces in raising cheaper debt from banks and/or institutional investors
- The frequent equity issuance could indicate that Tower believes its share price and market capitalization is overpriced

Dilution: The Enemy of All Shareholders

TSEM's management does not appear to have created long-term shareholder value. While TSEM's revenue growth from $100m in 2005, to almost $1 billion in 2015, appears impressive on the surface, it needs to be viewed in the context of management's ability to grow revenues in a shareholder friendly manner. We find that TSEM's basic share count has grown faster than its revenues. Meanwhile, sustainable GAAP profits remain elusive.

$ in millions



1. CAGR= Compounded Annual Growth Rate. Revenue CAGR assumes 2015E Sales of $958m per Wall St. Estimates and 2015 yr end share count
2. Based on recent Jan 11, 2016 13D filing share count of 82.1m and pro forma for estimated Maxim share issuance of 3.1m

Management and Corporate Governance Don't Look Too Pretty

Did TSEM's CEO Attend University?

Tower's 8 person executive management team has its biographies listed on the company's website. Each executive lists his or her academic credentials except the CEO!

Biography
Russell Ellwanger
Chief Executive Officer

Mr. Ellwanger was appointed Chief Executive Officer in May 2005. Previously, from 1998 to 2005, he served in various executive positions for Applied Materials Corporation, including Group Vice President, General Manager of the Applied Global Services (AGS) division from 2004 to 2005, and Group Vice President, General Manager of the CMP and Electroplating Business Group from 2002 to 2004.

Mr. Ellwanger also served as Corporate Vice President, General Manager of the Metrology and Inspection Business Group from 2000 to 2002, during which he was based in Israel. From 1998 to 2000, he served as Vice President of Applied Materials' 300-mm Program Office, USA.

Mr. Ellwanger also served as General Manager of Applied Materials' Metal CVD Division from 1997 to 1998 and from 1996 to 1997, he served as Managing Director of CVD Business Development, during which he was based in Singapore. In addition, Mr. Ellwanger held various managerial positions at Novellus Systems, Inc. from 1992 to 1996 and at Philips Semiconductors from 1980 to 1992.

No Formal Education Listed

Source: TowerJazz website

SPRUCE POINT CAPITAL MANAGEMENT

Advanced Academic Degrees Standard In TSEM's Industry

In the semiconductor manufacturing industry, it is typical for the CEO/President to have an advanced educational degree

	Taiwan Semi.	United Micro.	Semi. Mfct Int'l	Vanguard Int'l Semi.	Dongbu Hitek	Tower Semi.
President/CEO	Dr. Morris Chang	Po Wen Yen	Tzu-Yin Chiu	Leuh Fang	Chang-Sik Choi	Russell Ellwanger
Academic Credentials	Dr. Chang received his B.S. and M.S. degrees in Mechanical Engineering from M.I.T. in 1952 and 1953, and his Ph.D. in Electrical Engineering from Stanford in 1964. He has received honorary doctorates from seven universities.	Mr. Yen earned his bachelor's degree in Chemical Engineering from National Tsing Hua University and his masters in Chemical Engineering from National Taiwan University.	Dr. Chiu holds a bachelor's degree from Rensselaer Polytechnic Institute, a Ph.D. in electrical engineering and computer science from the University of California, Berkeley, and an executive MBA from Columbia University	M.S., Material Science & Engineering, University of Washington	Dr. Choi earned his Ph.D in Electronic Engineering from North Carolina University and both his Master and Bachelor degrees in Material Engineering from Seoul National University.	???
Source	Website	Website	Website	Website	Website	Website

Dissecting a Story Littered With Big Talk, That Appears "Too Good To Be True"

"Russell Ellwanger took Tower Semiconductor from the brink of bankruptcy to being the hottest stock in Tel Aviv. He looks back, and sketches the next goal."

March 29, 2015
Tower Semiconductor Ltd. (Nasdaq: TSEM; TASE: TSEM), once on the verge of bankruptcy, has a current market cap of NIS 5.2 billion - the same as First International Bank of Israel (TASE: FTIN) and Migdal Insurance and Financial Holdings Ltd. (TASE: MGDL), Israel's largest insurance company. **No, this is not an overinflated bubble about to burst.** Russell Ellwanger, the company's American CEO, has led a long process of recovery and building with many stumbling blocks since 2005.

Ellwanger, who will celebrate a decade in his post on May 1, does not conceal his excitement when he hears that Tower Semiconductor's share is getting closer to inclusion in the Tel Aviv 25 index. For him, the inclusion of an industrial-technological company like Tower Semiconductor in the index of Israel's 25 largest Tel Aviv Stock Exchange (TASE) companies is both a personal achievement and a milestone for the local industry. "Being on the Tel Aviv 25 will be very exciting for us. I can't say whether or not it will happen, but if it does, it will be fantastic, amazing," he says in a special "Globes" interview marking his 10th anniversary as company CEO.

Tower Semiconductor, which manufacturers chips at its fabs in Migdal HaEmek, in California, and in Japan, is the hottest story on the TASE over the past 15 months. The company's market cap was still at NIS 650 million as recently as December 2013, following a 75% plunge in its value within 18 months, but in **the last two weeks of 2013, the share skyrocketed 50%, after Ellwanger revealed an unexpected deal with Japanese electronic products company Panasonic.**

So far this year, Tower Semiconductor's share has added 250% to its value, a jump that, last week, led most of the company's holders of Series F bonds convertible bonds to consent to early conversion of their bonds on preferred terms. This development will push Tower Semiconductor's market cap up to NIS 5.2 billion, putting it in 28th place on the TASE in market cap. **This massive conversion of debt to equity is also expected to enable Tower Semiconductor to report cash balances in excess of its debt in its financial statements for the first quarter of 2015 – something that had seemed almost inconceivable**.

Source: Globes Israel, March 29, 2015

Spruce Point Capital Management

Don't Need A College Degree To Learn How To Game The Compensation System

An excellent Seeking Alpha article by Author Jay Yoon recently explored the questionable compensation strategies used by TSEM's management to extract increasing cash comp and stock gains reaped at the expensive of shareholders with punitive and well-timed option grants.

Research Highlights:

- Since Russell Ellwanger took over as CEO in 2005, TSEM's management team has continuously enriched themselves with an excessive amount of options at the expense of shareholders
- The Company appears to be using various techniques to minimize the exercise price of its options, as well as timing grants to coincide with key business events
- Management has also received large pay increases despite poor business performance. In less than ten years, total cash compensation to management has increased over 4x
- Due to the questionable actions of the board and the more lenient nature of certain Israeli securities laws, it is unlikely that management will change their behavior in the future

Large Option Grants Under Ellwanger's Tenure

Fiscal Year	# of Options Granted	Average Exercise Price	% of Basic Shares
Pre Reverse Split (15 to 1)			
FY 2002	0.91	$5.82	2.0%
FY 2003	3.12	$4.10	6.0%
FY 2004	4.36	$2.69	6.6%
FY 2005	5.00	$1.54	7.5%
FY 2006	**17.41**	**$1.52**	**17.3%**
FY 2007	9.13	$1.88	7.3%
FY 2008	10.85	$1.23	6.8%
FY 2009	**29.29**	**$0.29**	**14.7%**
FY 2010	1.01	$1.41	0.4%
FY 2011	11.82	$1.29	3.7%
Post Reverse Split (15 to 1)			
FY 2012	0.03	$12.64	0.1%
FY 2013	**5.40**	**$4.54**	**11.3%**

Fiscal Year	Inconsistent Option Strike Determination Method
2005 (p.61)	the opening market price of our shares on the date of the board approval of the grants
2006 (p.66)	90 day average closing price of our shares prior to grant
2009 (p.59)	the closing price TSEM's shares on the trading day immediately prior to the date of approval of the grant
2013 (F-42)	30 trading days immediately prior to the date of grant

TSEM Stock Price vs. Key Option Grants Near Cyclical Low Prices

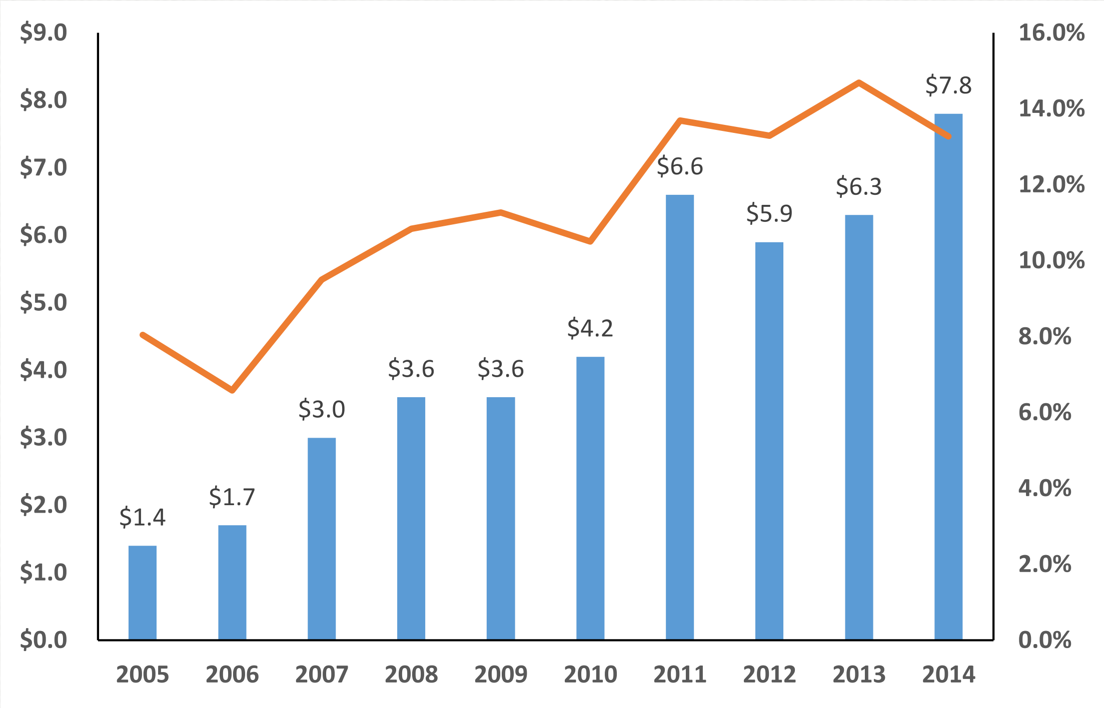
Source: Seeking Alpha Article by Jay Yoon: "TowerJazz: A Deeper Analysis of Management's Troubling Behavior"

Spruce Point Capital Management

Management and Director Compensation Immune To TSEM's Business Pressures

TSEM's insiders appear to be good at increasing total compensation despite the substantial accumulated capital losses to shareholders. Total comp has risen at a 19% CAGR from 2005-2014. However, the compensation appears more egregious when viewed in the context as a percentage of TSEM's total marketing, general and administrative (aka SG&A) expenses. As the table and chart below indicates, total comp is approximately 13.3% of expenses, up from approximately 8% in 2005. TSEM's Board and management, a team of 18 people, reap the benefits in an organization with just shy of 4,000 total employees! Its total comp to SG&A is way out of line with competitors.

$ in millions



Peer	2014 SG&A	Insider Total Comp	Total Comp / SG&A
Taiwan Semi.	$760.1	$58.0	7.6%
United Micro	$239.3	$5.0	2.1%
Semi. Mfct'ing Int'l	$177.6	$9.2	5.2%
Tower	$58.8	$7.8	13.3%

Note: Total compensation includes cash, fees, bonuses and perks. Total compensation calculated as a % of marketing, general and admin expense
Source: Tower and Peer Company Financials.

A Closer Look at the Micron and Panasonic Deals Concerns Spruce Point…

SPRUCE POINT
CAPITAL MANAGEMENT

Accounting Magic: Recording Profits From Bargain Purchases

Gains recognized from bargain purchases are rare in practice, yet TSEM has twice recorded gains on purchases from sophisticated, multinational companies as sellers. In our opinion, the bargain purchase gains were created either from inflating the values of the acquired assets, or from deflating the value of non-controlling interest (NCI = the value of the equity not acquired by Tower) and/or not recognizing contingent liabilities of the acquisition.

- **Bargain purchase:** refers to a situation where the fair value of the net assets acquired exceeds the fair value of consideration transferred. Such excess is sometimes referred to as "*negative goodwill*"
- **Mathematically**: Bargain Gain = Fair Value of Assets Acquired – Noncontrolling Interest (NCI) – TSEM Value Paid
- **Financial Statement Impact**: EPS and Book Equity become overstated
- As illustrated in the table below, M&A deals conducted during the years 2011 (Micron) and 2014 (Panasonic) yielded gains from bargain purchase of $20m and $166m, respectively
- The aforementioned gains seem even more peculiar when examining the parties to these transactions: Micron and Panasonic, two much larger and global companies, which have a fiduciary duty towards their shareholder to create value, and whose financial stability aren't in question

Tower Deals With Bargain Purchase Gains

Seller	Announced / Closed	Assets	Purchase Guarantee	Consideration ($mm)	Bargain Purchase Gain Recognized
Micron	4/4/11 / 6/5/11	Purchase of Micron's fab facility in Nishiwaki City, Hyogo, Japan	TowerJazz to manufacture products for Micron in the Japan facility for approximately the next three years	$40m cash / $22.6m stock (19.7m shares)	Initially: $10.5m but increased to: $19.5m (Note: A)
Panasonic	12/20/13 / 4/11/14	Acquires 3 of Panasonic's semiconductor factories in Japan, 51% of JV	Panasonic committed to acquire its products from the JV for a period of at least 5 years of volume production ($400m/yr)	Issues $7.4m of TSEM stock for 51% of JV	Initially: $150m "derived from high value assigned to Tower's stake in TPSC" Increased to: $166m per Annual Report

Spruce Point Capital Management

A Closer Look at the Micron Deal

On first pass, TSEM reports a $19.5m gain on acquisition from the Micron deal, everything seems great!

- In our opinion, the purchase price allocation, the value of net tangible assets appears artificially inflated to $82m (Left Table)
- As a result, Tower recognized a gain from bargain purchase in the amount of $19.5m (increased from $10.5m) (Right Table)
- TSEM paid $62.6m in a combination of $20m cash + $22.6m of TSEM stock
- Because the consideration paid ($62.6m) was less than the consideration received (estimated by TSEM at $82.1m), the company recognized a bargain purchase gain on acquisition of $19.5m ($82.1 – $62.6m)

Final Purchase Price Allocation[1]

$ in thousands	As of June 3, 2011
Current assets	$ 25,783
Property, plant, and equipment, including real estate	145,559
Intangible assets	11,156
Other assets	2,900
Total assets as of acquisition date	185,398
Current liabilities	28,317
Long-term liabilities (mainly employees related termination benefits)	74,984
Total liabilities as of acquisition date	103,301
Net assets as of acquisition date	$ 82,097

1. The revised final valuation mainly showed an increase in current assets from $17m to $25.8m

TSEM Reports Gain on Acquisition

$ in thousands	Three months ended September 30, 2011 GAAP	June 30, 2011 GAAP
REVENUES	$ 176,112	$139,707
COST OF REVENUES	159,780	119,333 (a)
GROSS PROFIT	16,332	20,374
OPERATING COSTS AND EXPENSES		
Research and development	6,526	5,457
Marketing, general and administrative	14,425	10,948
Acquisition related costs	--	1,493
	20,951	17,898
OPERATING PROFIT (LOSS)	(4,619)	2,476
FINANCING INCOME (EXPENSE), NET	1,374	(10,499)
GAIN FROM ACQUISITION	--	19,467 (a)
OTHER INCOME (EXPENSE), NET	14,020	(319)
PROFIT BEFORE INCOME TAX	10,775	11,125
INCOME TAX EXPENSE	(8,936)	(9,382)
NET PROFIT FOR THE PERIOD	$ 1,839	$ 1,743
BASIC EARNINGS PER ORDINARY SHARE	$ 0.01	$ 0.01

(a) The calculation of gain from acquisition presented above, has been updated from approximately $10.4m to approximately $19.5m, following the conclusion of the purchase price allocation

Sources: 20-F Annual Report, 4/30/12
Q3'2011 Press Release, 11/15/11

Swift Reversal of Fortune To The Micron Deal

$19.5m "Bargain Purchase Gain" later resulting in a $55m loss....

- In early 2015 when announcing FY 2014 earnings, and after the Panasonic deal was announced, Tower ceased its operations in the Nishiwaki facility and recorded significant operational losses in addition to a $55m impairment
- The aforementioned chain of events, cast a big question mark on the appropriateness of the $19.5m bargain purchase gain, which the company recognized during 2011 with the completion of the Micron deal

TSEM Operating Results: 2012 - 2014

$ in thousands	Year ended December 31, 2014	2013	2012
REVENUES	$ 828,008	$ 505,009	$ 638,831
COST OF REVENUES	764,220	476,900	560,046
GROSS PROFIT	63,788	28,109	78,785
OPERATING COSTS AND EXPENSES			
Research and development	51,841	33,064	31,093
Marketing, general and administrative	58,783	42,916	44,413
Nishiwaki Fab impairment	47,472	--	--
Nishiwaki Fab restructuring costs	8,028	--	--
Amortization related to a lease agreement early termination	--	7,464	--
Acquisitions related and reorganization costs	1,229	--	5,789
	167,353	83,444	81,295
OPERATING LOSS	(103,565)	(55,335)	(2,510)

Source: 20-F Annual Report, 5/14/15

Insights From Micron's Disclosure

Curiously, in what appears a vote of no confidence in TSEM, Micron sold its TSEM stock in early 2013, before its revenue deal with TSEM expired in mid 2014.

- **Micron's Disclosure of the Tower Transaction:**

*On June 2, 2011, we sold our wafer fabrication facility in Japan (the "Japan Fab") to Tower Semiconductor Ltd. ("Tower"). Under the arrangement, Tower paid $40 million in cash and approximately 20 million of Tower ordinary shares. In addition, we will receive an aggregate amount of $20 million in twelve equal monthly installments beginning in the second quarter of 2012. **We recorded a gain of $54 million (net of transaction costs of $3 million) in connection with the sale of the Japan Fab**. We also recorded a tax provision of $74 million related to the gain on the sale and to write down certain deferred tax assets associated with the Japan Fab. In connection with the sale of the Japan Fab, we entered into a supply agreement for Tower to manufacture products for us in the facility through approximately May 2014.*

Source: 2011 Annual Report, p. 29

- **Micron Last Disclosed its Ownership of TSEM Shares as of Feb 28, 2013** [1]

"Marketable equity securities included approximately 1.3 million ordinary shares of Tower Semiconductor Ltd. (Note: adjusted for 15:1 reverse stock split) received in connection with the sale of our wafer fabrication facility in Japan in June 2011. As of February 28, 2013, 0.3 million shares received were subject to resale restriction and were valued using a protective put model (Level 2). Resale restriction had lapsed for the remaining 1.0 million shares and they were valued using quoted market prices (Level 1)."

Source: Q1'2013 10Q filed 4/8/13

1) Micron's subsequent 10Q filed on 7/8/13 no longer disclosed the ownership of TSEM stock

SPRUCE POINT
CAPITAL MANAGEMENT

A Closer Look at the Panasonic Deal

- In March 2014, Tower acquired from Panasonic 51% of a newly established company, TowerJazz Panasonic Semiconductor Co., Ltd., ("TPSCo"), that manufactures products for Panasonic and potentially other third parties, using Panasonic's three semiconductor manufacturing facilities located in Hokuriku Japan
- Panasonic transferred its semiconductor wafer manufacturing process and capacity tools (8 inch and 12 inch) at three fabs to TPSCo, and entered into a five-year manufacturing agreement in a yearly estimated sales amount of $400m
- As consideration for Tower 51% equity holding in TPSCo, TSEM issued to Panasonic 870,454 of its ordinary shares valued at approx. $7.4m
- In the Purchase Price Allocation, we believe the value of net tangible assets was artificially inflated such that it summed to $181m. As a result (and as a result of deflating the balance of NCI by approximately $93 million contrary to generally accepted accounting principles), TSEM recognized a gain from bargain purchase in the amount of approximately $166.4m
- **To date, we estimate TPSCo has incurred cumulative losses of approximately $42m.** In the tables below the NCI shrunk from $7.1m to a negative balance of $13.7m on 6/30/15, or a cumulative loss of $20.5m, which represents 49%, so the total loss is $20.5 / 49% = $42m. 2 years into the JV, research estimates it has achieved a small amount of third party revenues at $10m/quarter, a far cry from projected growth of $50m/quarter – this also impacts capacity yielding significant unused production room, our estimate is over 30% of unused capacity

Positive Initial Non-Controlling Interest

	September 30, 2014 (Unaudited)	June 30, 2014 (Unaudited)
LONG-TERM DEBT	340,202	339,436
LONG-TERM CUSTOMERS' ADVANCES	6,389	6,572
EMPLOYEE RELATED LIABILITES	15,587	16,406
DEFERRED TAX LIABILITY	88,667	100,135
OTHER LONG-TERM LIABILITIES	36,988	33,925
Total liabilities	739,167	804,781
Shareholders' equity attributes to the company	181,711	191,047
Non controlling interest	(2,090)	418
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 918,788	$ 996,246

Source: Q3'2014 Financial Filings

Non-Controlling Interest Negative at 6/30/15

	As of June 30, 2015 (unaudited)	As of December 31, 2014
LONG-TERM LOANS FROM BANKS	154,635	159,776
DEBENTURES	59,722	107,311
LONG-TERM CUSTOMERS' ADVANCES	6,178	6,272
EMPLOYEE RELATED LIABILITES	16,571	16,699
DEFERRED TAX LIABILITY	74,551	75,278
OTHER LONG-TERM LIABILITIES	9,897	22,924
Total liabilities	553,044	688,585
THE COMPANY'S SHAREHOLDERS' EQUITY	314,039	204,979
Non controlling interest	(13,750)	(9,418)
TOTAL EQUITY	300,289	195,561

Source: Q2'2015 Financial Filings

Note: TSEM has not yet provided the NCI balance at 9/30/15

Spruce Point Capital Management

Strong Evidence of Asset Inflation From Panasonic's Disclosures

What could be greater evidence of a potential accounting scheme than 2 companies marking an identical transaction at different values! TSEM's valuation is 250%+ greater than Panasonic's!

- **Tower listed its purchase price allocation of TPSCo (left table below):**
  - Total assets of $361.2m and net assets acquired were $180.3m
- **Meanwhile, Panasonic disclosed its view on TPSCo in a press release in Japan in December 2013 (right side table):**
  - Total Assets of JPY 10.3bn ($98.8m) and Net Assets of JPY 1.5bn ($14.4m)

TSEM's Purchase Price Allocation

$ in thousands

	As of March 31, 2014	
Current assets	$	91,414
Machinery and equipment		245,278
Intangible assets		24,520
Total assets as of acquisition date	$	361,212
Current liabilities	$	1,426
Long-term Loan		85,249
Deferred tax liability		93,602
Total liabilities as of acquisition date	$	180,277
Total net assets acquired	$	180,935
The fair value non-controlling interests in TPSCo		7,120
Tower's consideration		7,411
Gain on acquisition	$	166,404

Source: Q2'14 Financial Filings

Panasonic's Disclosure

Overview of the New Company after the Business Transfer and Share Transfer (planned)

(i)	Corporate name	TowerJazz Panasonic Semiconductor Co., Ltd. (tentative name)
(ii)	Location	800, Higashiyama, Uozu-shi, Toyama, Japan
(iii)	Name and title of representative	CEO: Not yet determined (to be nominated by TJ pursuant to the Shareholders' Agreement)*
(iv)	Principal lines of business	Semiconductor wafer subcontract fabrication, subcontract fabrication for Panasonic
(v)	Stated capital	JPY 0.75 billion
(vi)	Net assets	JPY 1.5 billion
(vii)	Total assets	JPY 10.3 billion
(viii)	Establishment	March 2014 (planned)**
(ix)	Major shareholders and shareholding ratio (planned for April 1, 2014)	Tower Semiconductor Ltd.: 51.0% Panasonic Corporation: 49.0 %

* COO will be nominated by Panasonic.

** Provided, however, that the Business Transfer and Share Transfer are planned to be implemented on April 1, 2014.

Source: Panasonic Press Release, 12/20/13

Cultural or Promotional Differences?

Compare and contrast Panasonic and TSEM's press releases announcing the formation of the JV. Panasonic's suggest a deal done out of necessity under gloomy conditions, whereas TSEM's promotes the deal as "momentous" and "growth like no one else can (accomplish)."

Panasonic's Press Release

Purpose of the JV of Diffusion Plants in Hokuriku Region

The semiconductor market has seen intensifying competition, causing dramatic changes to the business environment. To respond to this change, Panasonic has moved forward with a variety of measures that include structural transformation of the business, such as a shift from a focus on the audio-visual market to the automotive and industrial market, and the development of products and solutions that take advantage of Panasonic's strengths of low power consumption, image processing, and compound technology

In order to respond to aim for accelerated enhancement of competitiveness and new growth of the semiconductor business, Panasonic decided to transfer the business relating to Semiconductor Wafer Manufacturing Process to the New Company, and thereafter, transfer of the 51% of shares in the New Company to TJ and make the New Company to be a joint venture company

Source: Panasonic Press Release, Dec 20, 2013

Tower's Closing Press Release

Amir Elstein, TowerJazz Chairman, stated, "I am pleased that **we completed this strategic and momentous business agreement with Panasonic**. The consolidation of our Japanese operations, resulting in significant reduction in fixed costs with an actual increase in available capacity and an enhanced technology offering, will strongly impact the company's future profitability and shareholder value."

Russell Ellwanger, TowerJazz CEO, commented, "This joint venture and partnership **brings together two leaders – Panasonic, an acknowledged analog components and systems leader, and TowerJazz, a recognized analog foundry leader – to create a company that will serve and grow the analog foundry space as no existing single foundry company can**. Over these months of negotiations and business and operational strategic planning and alignment, we have gained great respect for the technical capability and the great personal and corporate character of our Panasonic partner at all levels with which we've interacted. Already, enabled by this partnership, additional customers and products have been brought within the TowerJazz manufacturing umbrella whilst others anxiously await first engagements."

Source: TSEM Press Release, Dec 20, 2013

Shifting Expenses To Juice Gross Margin?

Tower guides investors every quarter to look foremost at its revenues, and secondly, at its Non-GAAP Gross Margin. Curiously, the CFO disclosed that Tower would shift expenses from COGS to R&D and SG&A as part of the TPSCo formation. We find it difficult to understand how the CFO can justify a COGS expense as being R&D.

CFO's Confusing Explanation

Cody Acree - Ascendiant Capital Markets - Analyst

"That is great, Russell. Thank you very much. Oren, maybe for you on the operating expense side because we did see such a large jump, can you just give us a bit of visibility as to what you are expecting going forward?"

Oren Shirazi - TowerJazz - SVP of Finance and CFO

"Yes, so like I stated in my part of the script, we have some of the costs that we knew that exist in the Panasonic transaction. Of course the Panasonic transaction brings positive EBITDA -- we didn't say exactly how much -- but when we went in-depth and looked at the costs, we saw that some portion of that should be allocated financially from cost of goods to R&D and SG&A of course like any other company. And indeed the R&D resources invested in TPS Co. in this Panasonic tower company is really big, really large so we allocated from COGS to R&D and SG&A the proper costs and basically what you see now and maybe a little bit because it is the first quarter maybe it is a little bit higher than usual but basically what you see now is a good indicator for the coming quarter which is just a classification internally between COGS and R&D. The total amount in the P&L is the same like we expected."

Source: Q2'2014 Earnings Conference Call

TSEM Earnings Promotes Non-GAAP Gross Margin

TowerJazz Reports Record Revenues for the Third Quarter of 2015 with Continued Increase in Net Profit and Margins

Year over Year Organic Revenue Increase of 23%; Provides Fourth Quarter Guidance of Continuous Growth, Surpassing $1 Billion Annualized Run Rate

MIGDAL HA'EMEK, ISRAEL - November 11, 2015 — TowerJazz (NASDAQ: TSEM & TASE: TSEM) today reported results for the third quarter of 2015 ended September 30, 2015.

Highlights

- Third quarter 2015 record revenues of $244 million with year over year organic growth of 23% and nine months year over year organic growth of 28%;
- Substantial GAAP margins increase:
  - Gross profit of $55 million, 3.8X year over year
  - GAAP net profit of $14 million, 74% quarter over quarter increase, and compared to a net loss in the third quarter of 2014

Source: TSEM Press Release, Nov 11. 2015

SEC Already Questioning Panasonic Deal, Might Find Spruce Point's Insights Useful

SEC Comment Letter Questions Panasonic Deal

Question 3. We see that in March 2014, you acquired 51% of the shares of TPSCo. through the issuance of common shares with a fair market value of approximately $7.4 million, and recorded a gain of $166 million. Please address the following:

- Describe for us the specific types of assets acquired and liabilities assumed and tell us
- Panasonic's historical cost basis associated with each significant classification.
- Tell us the methodologies utilized to value each type of asset acquired and liability
- assumed, and describe the significant assumptions in each model.
- Describe for us how pricing for products sold to Panasonic will be established.

Question 4. You disclose that the fair values of TPSCo's assets and liabilities are based on a valuation performed by third party professional valuation experts. Please revise future filings to clarify the nature and extent of the third party valuation experts' involvement and management's reliance on the work of the valuation experts. Refer to Question 141.02 of the Compliance and Disclosure Interpretations on Securities Act Sections, which can be found at http://www.sec.gov/divisions/corpfin/guidance/sasinterp.htm, and would be applicable to the extent your Form 20-F is incorporated by reference into any registration statement

Source: SEC Comment Letter, 9/30/15

TSEM Response to SEC

Response to Q3*:* Historical cost basis in Panasonic books was approximately JPY 165 billion, or approximately $1.65 billion (using an average exchange ratio of 100 JPY to each $1). The methodologies used- to value each type of asset acquired assumed and the significant assumptions in each model were as follows:

(a) Machinery: 96% sales comparison approach / 4% cost approach
(b) Intangibles: Relief-from-royalty method
(c) Inventory: WIP valued on future selling price per contract less cost of completion less normal margin

Pricing is negotiated between the parties annually. Prices implemented a regressive price per product for gradually increasing orders, as such volume discounts are common

Response to Q4: *"We accept your comment and will revise in future filings the related disclosure to clarify the nature and extent of the third party valuation experts' involvement and management's reliance on the work of the valuation experts In connection with such disclosure we will refer to the guidance in the Staff's response to Question 141.02 of the Compliance and Disclosure Interpretations on Securities Act Sections."*

Source: TSEM Response to SEC Comment Letter , 10/28/15

Pay Close Attention to the Non-Controlling Interest (NCI) Valuation

By Maximizing the Accounting of the FV of Assets Acquired and Minimizing The Value of the NCI, TSEM Can Maximize The Value of its Bargain Purchase Gain

Bargain Gain = FV of Assets Acquired – NCI – TSEM Value Paid

- As part of purchase price accounting , Tower is required according to GAAP (ASC 805), to record and present on its balance sheet the value of the NCI (Non-Controlling Interest) in TPSCo at fair value estimated through valuation techniques and methods
- The requirement to use valuation techniques and methods in order to estimate the fair value of NCI is detailed in the following public accounting guides:
  - PwC: Business Combinations and Noncontrolling Interests (2014)
  - E&Y: Business Combinations (Oct 2015)
- In contradiction to U.S. GAAP guidance, it appears that Tower elected to estimate and record the value of TPSCo's NCI based on the consideration paid for its 51% stake in TPSCo resulting in the NCI being valued at $7.12m on TSEM's balance sheet
  - Recall that TSEM issued $7.4m of stock for 51% of TPSCo
  - The implied equity value is therefore ($7.4m divided by 51%) = $14.5m
  - The implied value of the NCI is therefore $7.4m multiplied by Panasonic's 49% = $7.12m
- E&Y's guide specifically addresses the inappropriateness of using the consideration paid in a transaction to measure the fair value of the NCI:

  "Given the considerations noted above, it generally is not appropriate to estimate the fair value of the noncontrolling interest in a private company as simply the noncontrolling percentage of the equity value determined from grossing up the consideration transferred by the percentage of the company obtained by the acquirer. For example, if an acquirer paid $100 million for an 80% controlling stake in a private company, it would not be appropriate to assume that the fair value of the 20% noncontrolling interest is $25 million (i.e., 20% of an equity value calculated as $100 million divided by the 80% interest acquired). Additional analysis and valuation procedures are required"

A Market-Based Valuation Alternative to Valuing the NCI

We estimate a range of $104 - $182m for the value of TPSCo's NCR, significantly more than the $7.1m recorded by TSEM

- An alternative approach for valuing TPSCo's NCI involves looking at public company multiple methods. The PwC guide gives an example that is based on a multiple of net income.
- Detailed projections of TPSCo were not available at the time of the transaction. However, TSEM did say it expected the deal to produce $400m of revenues per annum. We are justified in using a multiple of sales based valuation approach

PWC Illustrates Market-Based Multiple Approach to Valuing the NCI

EXAMPLE 7-10

Measuring the fair value of the NCI using the guideline public company method

Company A acquires 350 shares, or 70%, of Company B, which is privately held, for CU2,100 or CU6.00 per share. There are 500 shares outstanding. The outstanding 30% interest in Company B represents the NCI that is required to be measured at fair value by Company A. At the acquisition date, Company B's most recent annual net income was CU200. Company A used the guideline public company method to measure the fair value of the NCI. Company A identified three publicly traded companies comparable to Company B, which were trading at an average price-to-earnings multiple of 15. Based on differences in growth, profitability, and product differences, Company A adjusted the observed price-to-earnings ratio to 13 for the purpose of valuing Company B.

Analysis

To measure the fair value of the NCI in Company B, Company A may initially apply the price-to-earnings multiple in the aggregate as follows:

Company B net income	CU200
Price-to-earnings multiple	x13
Fair value of Company B	2,600
Company B NCI interest	30%
Fair value of Company B NCI	CU780

Source: PWC Business Combinations and Noncontrolling Interests, p. 444

Our Estimate of TPSCo's 49% NCI Value

$ in millions	Value Range	Comment
Expected Sales of TPSCo	$400m	Stated by TSEM publicly
EV/Sales Multiple	0.6x – 1.0x	TSEM fwd sales mult. was 0.75x at 3/31/14
Implied EV of TPSCo	$240 - $400m	
Net Financial Debt	$28m	($85.2-$57.5m)=Yen Bank financing less cash received
Equity Value	$212 - $372m	
Non-controlling Interest	49%	Panasonic's ownership %
Est. Fair Value of TPSCo NCI	$104m - $182m	Compare with TSEM's $7.1m value

Numerous Red Flags Point To Potential Accounting Scheme

Summary of Key Accounting Concerns

Accounting Tactic	Timing	Implication to Financial Statements
Large GAAP/Non-GAAP Divergence, Driven By Excluding Depreciation from Non-GAAP results	Q1'2007	Shortly after the appointment of the CEO (and his grant of options totaling 4% of the company), TSEM started presenting Non-GAAP results, excluding depreciation and amortization from its financial results. For capital intensive businesses such as semiconductor manufacturing, this is highly unusual reporting practice (none of TSEM's peers present this way) as it ignores an ongoing cost of doing business
Repeated Use of Bargain Purchase Gains	2011 and 2014	As noted in the earlier section, TSEM accounted for two deals that resulted in rare "bargain purchase gains" totaling $19.5m in 2011 and $166m in 2014. In our opinion, this occurred as a result of either 1) inflating the purchase price allocation of the assets or, 2) deflating the valuation of the non-controlling interest. In either event, these gains bolstered both EPS and Equity
Beneficial Conversion Feature ("BCF") Accounting	Q3'2012	In our opinion, incorrect BCF accounting allowed TSEM to reduce Series F convertible debt by approximately $50m, while overstating equity by the same amount
Shifting Expenses	Q4'2014	As noted in the prior section, TSEM stated that it moved expenses from COGS to R&D and SG&A as part of looking at the TPSCo deal. TSEM places a heavy emphasis on reporting increasing Non-GAAP Gross Margin to investors. This odd adjustment merits scrutiny as it was not adequately explained
Fair Value Remeasurement of Bank Debt	Q4'2014	TSEM lowered the book value of its bank debt by $24m (correspondingly increasing its book equity by a similar amount) by applying a Level 3 "income approach method." Under GAAP, TSEM should have used a Level I method by referencing its publicly traded debentures in Israel, a more appropriate valuation method that would not have dictated lowering the value of its bank debt
Change in Definition of Capital Expenditures	Q4'2014	The industry standard definition of Free Cash Flow is Cash from Operations less Gross Capital Expenditures. Starting at FY End 2014, TSEM changed its reporting to Net Capex (net of asset sales), creating the appearance of positive Free Cash Flow (inclusive of asset sales). Reduced disclosures have make it difficult to determine if TSEM is truly cash flow positive (in our opinion it is not)
Change of Accounting for PP&E Affecting Useful Lives for Depreciable Assets	Q2'2015	Unjustified changes to the estimated useful lives of machinery and equipment (15yrs from 7yrs and facility systems and infrastructure (extended to 25yrs from 14 yrs). For the three months period ended June 30, 2015, the impact of these extended estimated useful lives was approximately $14m reduced depreciation expenses which resulted in a net increase of approx. $6.8m, of net profit.

Tower's Financial Reporting and Disclosures Appear Below Industry Standard

	Taiwan Semi.	United Micro.	Semi. Mfct Int'l	Vanguard Int'l Semi.	Tower Semi.
Sales Guidance	✓	✓	✓	✓	✓
Monthly Sales Reporting	✓	✓		✓	
ASPs		✓			✓
Shipments	✓	✓	✓	✓	✓
Sales by Technology	✓	✓	✓	✓	
Sales by Application	✓	✓	✓	✓	
Intercompany sales		✓	✓	✓	
Gross Margin Guidance	✓	✓	✓	✓	
Operating Margin Guidance	✓		✓	✓	
Capex Guidance	✓	✓	✓	✓	✓
Detailed Capacity / Utilization	✓	✓	✓		
Allowance for doubtful accts	✓	✓	✓	✓	
Source	Here	Here	Here	Here	Here

Tower only discloses total relative changes in ASPs and shipments, not absolute figures

Tower only discloses Capex intentions when asked by analysts on conf. calls and does not put its figures in writing

Spruce Point Capital Management

In Our Opinion, TSEM's Income Statement Is Riddled With Issues

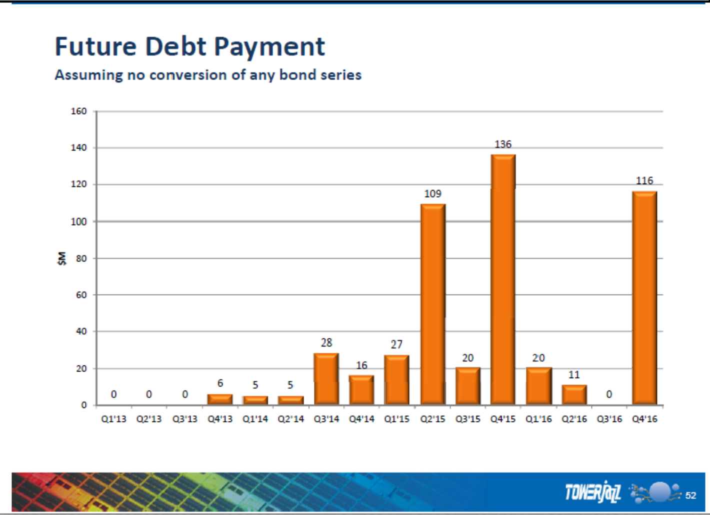
We've attempted to illustrate the income statement impact from some of the accounting issues highlighted on the previous slide.

Income Statement Item	Our Observations of Potential Issues
Revenue	TSEM only provides revenue guidance and primarily grows through M&A. An example of organic revenue destruction would be the from the Micron deal where revenues collapsed to nil over the course of the three year contract. TSEM doesn't disclose sources of revenues (by technology, application, or for engineering, design and support services). TSEM also does not break-out intercompany revenues
Cost of Revenues	In relation to the Panasonic JV, TSEM has re-classified certain undisclosed expense items from Cost of Revenues to SG&A and R&D, how could these items be confused? The implication is that the numbers are harder to compare over periods. TSEM changed depreciation and amortization assumptions to lower GAAP expenses, and removes these expenses completely to show low Non-GAAP costs. Also in 2014, TSEM mysteriously boosted related-party energy purchases from Israel Corp, which could be below market prices. This amounts to 2% of COGS. Now the Israel Corp is no longer a shareholder, will costs increase in the future?
Gross Profit	Not surprising that TSEM's GAAP gross margins are significantly below peers, and its Non-GAAP gross margin is significantly inflated from removing depreciation and amortization
R&D Expense	TSEM spends below industry average R&D. See cost of revenue commentary above on R&D reclassifications
Marketing and G&A	See cost of revenue commentary above
Nishiwaki Restructuring & Impairment	Questionable charges in light of the fact TSEM booked a gain on the initial transaction
Interest expense, net	TSEM has used debt revaluation tactics to lower reported interest expense. In our opinion, it also used a highly promotional Panasonic deal to inflate the stock, and cause a conversion of debt to lower its interest burden
Gain from Acquisition	Bargain purchase gains are rare in accounting practice, yet TSEM has twice recorded these gains. The gains improve earnings and also inflate book equity
Profit before taxes	TSEM directs investors and readers to Non-GAAP numbers to avoid all the above negative issues at various line items in the income statement. On a GAAP and free cash flow basis, TSEM's numbers are negative

Mountain of Debt Maturities Possible Motivation for Accounting Manipulation?

- In our opinion, during 2013 TSEM most likely realized that without drastic moves, starting at 2015, it would not be able to service its liabilities, and could face solvency issues. Accordingly, TSEM's stock price approached a multi-year low in late 2013. A payment schedule of the company's financial liabilities, as illustrated by TSEM's June 2013 investor presentation, revealed that during 2015 TSEM would need to repay $292m of its financial liabilities (in addition to $55m scheduled repayment during 2013-2014)

June 2013 Investor Presentation



- It is reasonable to assume TSEM's management knew it could face difficulties meeting upcoming debt maturities utilizing solely its free cash flows (we previously illustrated our belief that TSEM doesn't generate positive free cash flows)
- It is possible that TSEM's management plotted a plan to inflate its stock price (which was trading under $4/share in late 2013), by promoting a "Revolutionary" deal with Panasonic, all for the purpose of allowing Series F debentures conversion feature to be "in the money" such that TSEM could convert its debt into shares, allowing it to avoid its repayment
- In order to execute this plan, we find evidence of many questionable accounting and financial presentation changes that are consistent with our belief that TSEM's management was under pressure to keep the stock afloat

SPRUCE POINT CAPITAL MANAGEMENT

Playbook For Signs of Accounting and Financial Statement Manipulation

An array of questionable accounting changes, appears to have allowed TSEM to inflate its stock, relieve its debt burden with a conversion of debt to equity, and allow its largest Israeli shareholders to liquidate their stock positions from March 2013 onward

- In the first step, we believe TSEM executed the Panasonic deal, while spreading grand statements according to which this deal would generate significant profits, in addition to recognizing a gain from bargain purchase of $166m
- In reality, we estimate TSEM has realized estimated operating losses of approximately $40m (during a period of 1.25 years). Our opinion is supported by the growing loss of the JV's non-controlling interest (NCI)
- Starting around 2012, in order to obscure its business problems, we believe TSEM appears to have engaged in various aggressive accounting techniques, all of which serve to overstate book equity, accounting profits, and free cash flow
- After a meteoric increase in the company's share price, which started after the announcement of the Panasonic deal, during March 2015, the company initiated a plan to accelerate the conversion of its Series F debentures in order to prevent insolvency
- The reality proved that Tower's plan was a success: As of 6/30/15, out of Series F $231m debt, $197m were converted to shares, such the outstanding balance of Series F debentures is almost zero (Source: Bloomberg)
- Nevertheless, despite the conversion of the majority of Series F debentures, which significantly decreased the company's debt burden, we believe that TSEM's business problems remain unchanged: TSEM constantly increases its income without generating free cash flows, and enters into short-term agreements, which in our opinion may be expected to end badly (operating losses during their operation and significant write-offs when the original deal term ends, similarly to the way the Micron deal ended)
- From March 2013 – July 2015 TSEM's two largest shareholders completely eliminated their share holdings according to filings, while the third largest reduced ownership
- Curiously, during 2013 the Public Company Accounting Oversight Board (PCAOB) issued a report to TSEM's auditor, Deloitte Brightman Almagor, Zohar & Co noting significant audit deficiencies. While TSEM was not specifically mentioned, it is certainly worth carefully considering that the auditor had only 17 issuer clients at the time the report was issued

Tower's Auditor Affiliated With Deloitte

Spruce Point Capital Management

Deloitte.
Brightman Almagor Zohar

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and the shareholders of
Tower Semiconductor Ltd.

We have audited the accompanying consolidated balance sheets of Tower Semiconductors Ltd. and subsidiaries (the "Company") as of December 31, 2013 and 2012, and the related consolidated statements of operations, comprehensive loss, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2013. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as of December 31, 2013 and 2012, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2013, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 27, 2014 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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

Tel Aviv, Israel
February 27, 2014

Tel Aviv - Main Office	Trigger Foresight	Ramat-Gan	Jerusalem	Haifa	Beer-Sheva	Eilat
1 Azrieli Center	3 Azrieli Center	6 Ha-rakun	12 Sarei Israel	5 Ma'aleh Hashichrur	Omer Industrial Park	The City Center
Tel Aviv, 6701101	Tel Aviv, 6702301	Ramat Gan, 5252183	Jerusalem, 9439024	P.O.B. 5648	Building No. 10	P.O.B. 583
P.O.B. 16593				Haifa, 3105502	P.O.B. 1369	Eilat, 8810402
Tel Aviv, 6116402					Omer, 8496500	
Tel: +972 (3) 608 5555	Tel: +972 (3) 607 0500	Tel: +972 (3) 755 1500	Tel: +972 (2) 501 8888	Tel: +972 (4) 860 7333	Tel: +972 (8) 690 9500	Tel: +972 (8) 637 5676
Fax: +972 (3) 609 4022	Fax: +972 (3) 607 0501	Fax: +972 (3) 676 9955	Fax: +972 (2) 537 4173	Fax: +972 (4) 867 2528	Fax: +972 (8) 690 9600	Fax: +972 (8) 637 1628
Info@deloitte.co.il	Info@tfco.co.il	Info-ramatgan@deloitte.co.il	Info-jer@deloitte.co.il	Info-haifa@deloitte.co.il	Info-beersheva@deloitte.co.il	Info-eilat@deloitte.co.il

Source: Tower's Financial Filings

Warning: TSEM's Auditor Cited By The PCAOB For Audit Deficiencies

Last PCAOB inspection report on TSEM's auditor, issued Nov 25, 2013. The report noted multiple instances audit deficiencies. Brightman had only 17 issuer clients.

PCAOB
Public Company Accounting Oversight Board

PCAOB Release No. 104-2014-003
Inspection of Brightman Almagor Zohar & Co.
November 25, 2013
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persuasive other evidence, even if a firm claims to have performed the procedure. PCAOB Auditing Standard No. 3, *Audit Documentation* ("AS No. 3"), provides that, in various circumstances including PCAOB inspections, a firm that has not adequately documented that it performed a procedure, obtained evidence, or reached an appropriate conclusion must demonstrate with persuasive other evidence that it did so, and that oral assertions and explanations alone do not constitute persuasive other evidence. See AS No. 3, paragraph 9 and Appendix A to AS No. 3, paragraph A28. For purposes of the inspection, an observation that the Firm did not perform a procedure, obtain evidence, or reach an appropriate conclusion may be based on the absence of such documentation and the absence of persuasive other evidence.

The deficiencies identified included deficiencies of such significance that it appeared to the inspection team that, in two of the audits performed by the Firm, the Firm, at the time it issued its audit report, had not obtained sufficient appropriate audit evidence to support its opinions on the issuer's financial statements. Those deficiencies were -

(1) the failure, in an audit of ICFR, to perform sufficient procedures to test the design effectiveness of controls related to revenue and, due to the resulting unsupported reliance on controls, the failure to perform sufficient substantive procedures to test the occurrence and allocation of revenue;

(2) the failure, in an audit of ICFR, to perform sufficient procedures to evaluate the appropriateness of excluding an entity from the ICFR assessment;

(3) the failure, in testing the existence of an environmental liability, to perform sufficient procedures regarding the use of the work of a specialist;

(4) the failure to perform sufficient procedures to evaluate the severity of control deficiencies; and

(5) the failure to perform sufficient procedures to evaluate the effect of audit differences.

The deficiencies identified also included deficiencies of such significance that it appeared to the inspection team that, in the audit in which the Firm played a role but was not the principal auditor, the Firm had not obtained sufficient appropriate audit evidence to fulfill the objectives of its role in the audit. Those deficiencies were -

PCAOB
Public Company Accounting Oversight Board

PCAOB Release No. 104-2014-003
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(1) the failure to perform sufficient procedures to test the existence of accounts receivable;

(2) the failure, in an audit of ICFR, to perform procedures to address the risk presented by an identified control deficiency; and

(3) the failure to perform procedures to identify related parties.

B. Review of Quality Control System

In addition to evaluating the quality of the audit work performed, the inspection included review of certain of the Firm's practices, policies, and procedures related to audit quality. This review addressed practices, policies, and procedures concerning audit performance and the following eight functional areas (1) tone at the top; (2) practices for partner evaluation, compensation, admission, assignment of responsibilities, and disciplinary actions; (3) independence implications of non-audit services; business ventures, alliances, and arrangements; personal financial interests; and commissions and contingent fees; (4) practices for client acceptance and retention; (5) practices for consultations on accounting, auditing, and SEC matters; (6) the Firm's internal inspection program; (7) practices for establishment and communication of audit policies, procedures, and methodologies, including training; and (8) the supervision by the Firm's audit engagement teams of the work performed by foreign affiliates. Any defects in, or criticisms of, the Firm's quality control system are discussed in the nonpublic portion of this report and will remain nonpublic unless the Firm fails to address them to the Board's satisfaction within 12 months of the date of this report.

END OF PART I

Source: PCAOB Audit Inspection Report, Nov 25, 2013

TSEM's GAAP vs. Non-GAAP Numbers Remind Us of Disney's "The Princess and the Frog"

Frog aka GAAP EPS

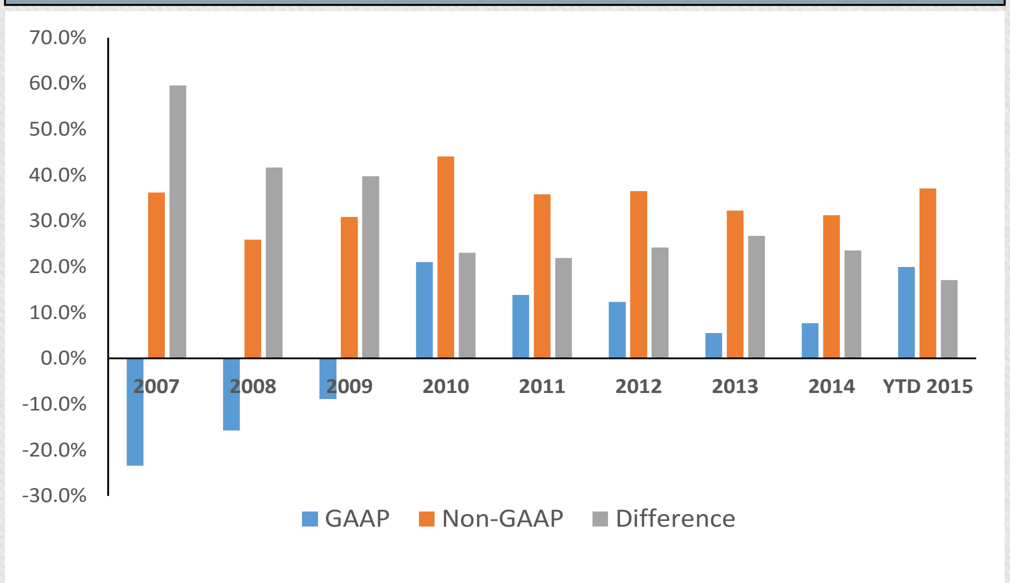
Prince aka Non-GAAP EPS

The Alchemy of TSEM's Financial Results: Non-GAAP Abuse

- Not long after CFO and CEO Shirzi and Russell Ellwanger were appointed in October 2004 and April 2005, respectively, TSEM began to report its financial results on a Non-GAAP basis. The majority of the difference stems from excluding depreciation and amortization expenses
- On Nov 19, 2015, an Israeli business website called "The Marker" published an article authored by Shlomy Shuv, CPA. Mr. Shuv is considered to be an accounting expert in Israel specializing in detecting accounting problems. According to Mr. Shuv:

*"**It's hard to accept excluding depreciation expenses in a heavily intensive capital investments company such as Tower**…even in the American jungle of Non-GAAP reporting there are basic rules…the SEC rules forbid a local or foreign company to report (Reg G) – including in its press release, a Non-GAAP financial measure, which together with the rest of the attached information might mislead or confuse the investors…item 10(e) of Regulation S-K prohibits to eliminate or smooth items identified as non-recurring, infrequent or unusual, when the nature of the charge or gain is such that it is reasonably likely to recur within two years, or there was a similar charge or gain within the prior two years. In the SEC official fillings, the company needs not only to detail the adjustment, but also to explain its importance."*

TSEM GAAP v. Non-GAAP Gross Margins



Source: Tower Financials

Non-GAAP Abuse (cont'd)

TSEM's recent Q3'15 financial press release contain a dizzying amount of footnotes. The most questionable adjustment is its removal of depreciation and amortization from Cost of Revenues, R&D and Marketing and G&A expense items.

	Three months ended March 31,		Three months ended March 31,		Three months ended March 31,	
	2015	2014	2015	2014	2015	2014
	non-GAAP		Adjustments (see a, b, c, d, e below)		GAAP	
REVENUES	$ 226,217	$ 132,653	$ --	$ --	$ 226,217	$ 132,653
COST OF REVENUES	145,530	88,162	47,695(a)	40,241(a)	193,225	128,403
GROSS PROFIT	80,687	44,491	(47,695)	(40,241)	32,992	4,250
OPERATING COSTS AND EXPENSES						
Research and development	14,422	7,155	415(b)	288(b)	14,837	7,443
Marketing, general and administrative	14,929	9,866	1,232(c)	950(c)	16,161	10,816
Nishiwaki Fab restructuring costs and impairment	--	--	--	71,459	--	71,459
Merger related costs	--	--	--	1,229	--	1,229
	29,351	17,021	1,647	73,926	30,998	90,947
OPERATING PROFIT (LOSS)	51,336	27,470	(49,342)	(114,167)	1,994	(86,697)
INTEREST EXPENSE, NET	(3,633)	(8,113)	-- (d)	-- (d)	(3,633)	(8,113)
OTHER NON CASH FINANCING EXPENSE, NET (*)	--	--	(84,596)	(20,117)	(84,596)	(20,117)
GAIN FROM ACQUISITION, NET	--	--	--	151,155	--	151,155
OTHER INCOME (EXPENSE), NET	(9)	139	--	--	(9)	139
PROFIT (LOSS) BEFORE INCOME TAX	47,694	19,496	(133,938)	16,871	(86,244)(f)	36,367
INCOME TAX BENEFIT (EXPENSE)	(464)	--	11,358(e)	2,454(e)	10,894	2,454
PROFIT (LOSS) BEFORE NON CONTROLLING INTEREST	47,230	19,496	(122,580)	19,325	(75,350)(f)	38,821
NON CONTROLLING INTEREST	2,286	--	--	--	2,286	--
NET PROFIT (LOSS)	$ 49,516	$ 19,496	$ (122,580)	$ 19,325	$ (73,064)(f)	$ 38,821

(a) Includes depreciation and amortization expenses in the amounts of $47,439 and $39,944 and stock based compensation expenses in the amounts of $256 and $297 for the three months ended March 31, 2015 and March 31, 2014 respectively. (b) Includes depreciation and amortization expenses in the amounts of $96 and $29 and stock based compensation expenses in the amounts of $319 and $259 for the three months ended March 31, 2015 and March 31, 2014 respectively. (c) Includes depreciation and amortization expenses in the amounts of $497 and $200 and stock based compensation expenses in the amounts of $735 and $750 for the three months ended March 31, 2015 and March 31, 2014 respectively. (d) Non-GAAP interest expense, net include only interest on an accrual basis. (e) Non-GAAP income tax expense include taxes paid during the period on a cash basis. (f) The differences between the above-referenced GAAP profit (loss) results for the first quarter of 2015 as compared with the comparable periods' results are mainly due to: (i) $85 million other non cash financing expenses included in the three months ended March 31, 2015, primarily reflecting accelerated accretion resulted from the successful $162 million accelerated conversion of debentures series F (ii) $151 million gain from the acquisition of TPSCo included in the first quarter of 2014; and (iii) $71 million of costs related to Nishiwaki Fab cessation of operations recorded in the three months ended March 31, 2014. (*) Other non cash financing expense, net for the three months ended March 31, 2015 comprised primarily of accelerated accretion and amortization resulting from the $162 million accelerated conversions of debentures series F.

Spruce Point Capital Management

None of TSEM's Peers Exclude Depreciation and Amortization

A review of TSEM's peer semiconductor companies illustrates that not a single one adjusts its financial results to exclude depreciation or amortization.

Company / Ticker	Country	Non-GAAP adjustments
Magnachip / MX	Korean	Reports Non-GAAP EPS with no reconciliation in its press releases
Taiwan Semiconductor / TSM	Taiwan	Does not report adjusted results
United Microelectronics / UMC	Taiwan	Does not report adjusted results
Texas Instruments / TXN	US	Reports "Free Cash Flow" as a Non-GAAP measure as CFO – Capex
Intel / INTC	US	Reports "Non-GAAP Cash and LT Investments"
Semiconductor Manufacturing Int'l / SMI	China	Reports Non-GAAP operating expenses "adjusted to exclude the effect of employee bonus accrual, government funding and gain from the disposal of living quarters"
Amkor Technology / AMKR	US	Reports Non-GAAP gross margin and EPS "adjusted for litigation settlement expense"
STMicroelectronic	Swiss	Reports Non-GAAP operating income and EPS "adjusted for impairment and restructuring charges"

Deceptive Change in Capex Enabling Free Cash Flow Overstatement?

Tower Presented in its 2014 Annual Report its Internal Investments as "Net" Capex

	Year ended December 31,		
	2014	2013	2012
CASH FLOWS - INVESTING ACTIVITIES			
Investments in property and equipment, net (a)	(50,209)	(77,044)	(103,830)
Investments in other assets, intangible assets and others	(76)	(409)	(4,498)
Acquisition of subsidiary consolidated for the first time (b)	57,582	--	--
Investment grants received	--	--	2,618
Interest bearing deposits, including designated deposits	10,000	--	(10,000)
Net cash provided by (used in) investing activities	17,297	(77,453)	(115,710)

(a) Including proceeds related to sale and disposal of property and equipment in the amounts of $45,464 and $4,775 for the years ended December 31, 2014 and 2013, respectively.

Prior Year Annual Reports Show Results as "Gross" Capex and Proceeds from PP&E Sales

	Year ended December 31,		
	2013	2012	2011
CASH FLOWS - INVESTING ACTIVITIES			
Investments in property and equipment	(81,819)	(103,830)	(117,166)
Proceeds from investment realization	--	--	31,400
Proceeds related to sale and disposal of property and equipment	4,775	--	5,751
Investments in other assets, intangible assets and others	(409)	(4,498)	--
Acquisition of subsidiary consolidated for the first time (a)	--	--	(40,000)
Investment grants received	--	2,618	33,292
Interest bearing deposits, including designated deposits	--	(10,000)	98,007
Net cash provided by (used in) investing activities	(77,453)	(115,710)	11,284

Spruce Point Capital Management

TSEM No Longer Footnotes Proceeds of Sold PP&E

Currently, TSEM no longer even provides footnote details on asset sales. Furthermore, its own numbers are not consistently presented between the cash flow statement, and the MD&A section which discusses sources of liquidity

	Six months ended June 30, 2015	Six months ended June 30, 2014
	(unaudited)	
CASH FLOWS - INVESTING ACTIVITIES		
Investments in property and equipment, net	(66,572)	(25,937)
Acquisition of subsidiary consolidated for the first time (a)	--	57,582
Interest bearing deposits, including designated deposits	--	10,000
Net cash provided by (used in) investing activities	(66,572)	41,645

Liquidity and Capital Resources

As of June 30, 2015, we had an aggregate amount of $142.5 million in cash and cash equivalents, as compared to $187.2 million as of December 31, 2014.

The main cash activities during the six months ended June 30, 2015 included: $91.2 million positive net cash from operating activities excluding $24.9 million employee retirement related payments in connection with the Nishiwaki fab cessation of operations; $5.7 million received from exercise of warrants and options, net of issuance expenses; capital investments, net which aggregated to approximately $67.9 million and repayment of $48.7 million of debts, net.

Source: Tower Q2'2015 Financials and MD&A

Spruce Point Capital Management

A Closer Look Into Capex

In our opinion, it is possible TSEM made a change in the presentation of its capex in order to create a potentially confusing view to the untrained eye of free cash flows in the amount of $48m during 2014.

- Cash flows from operations during 2014 summed to $97.7m ($125.3m excluding Nishiwaki fab closure employee related retirement cost), while purchases of property, plant and equipment (PP&E) summed to $50.2m (net of sales of PP&E), creating a potentially misleading representation as if the company has $47.5m free cash flows ($75.1m excluding Nishiwaki fab closure employee related retirement cost).

- A thorough examination of TSEM's cash flows from investing activities in 2014 reveals that it is presented net of a $45.4m cash flow from realization of PP&E sales. Digging even deeper uncovers that out of the approximate $45m of received from realization of PP&E sales, approximately $40m was related to realization of asset sales in the Nishiwaki fab, which is a one time line item:

B. LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2014, we had an aggregate amount of $187.2 million in cash and cash equivalents, as compared to $122.9 million of cash, cash equivalents and interest bearing deposits as of December 31, 2013, which included $10 million of designated deposits.

The increase in cash balance during the year was attributed mainly to $125.3 million cash generated from operating activities including interest payments of $34.0 million (or $159.3 million excluding these $34.0 interest payments) and excluding Japanese employee retirement related payments; ***investments of $99.4 million in fixed assets,*** *net $57.6 million of cash in TPSCo associated with its establishment; repayment of $51.4 million of debt; proceeds from exercise of options and bond issuance of $19.6 million; and a receipt of an $85.9 million loan from JA Mitsui Leasing, Ltd. and Bank of Tokyo (BOT) Lease Co., Ltd, two Japanese banks, that was used to repay the bridge loan previously received from Panasonic;* ***in addition, funds received from Nishiwaki assets sale, net of Japanese employee retirement related payments, amounted to $12.6 million.***

- This amount excludes employee related retirement cost in the amount of $27m, implying that the gross amount related to the realization of the Nishiwaki's assets totaled $40m). If we adjust the cash flow from investing to exclude the one time $40m received from the Nishiwaki's assets, the resulting cash flow from PP&E sales is $90m and the free cash flow is jus $8m ($35m excluding Nishiwaki fab closure employee related retirement cost)

SPRUCE POINT CAPITAL MANAGEMENT

"Non-Cash" Capex Deserves Very Close Scrutiny

- TSEM's statement of cash flows buries additional capital investment details in the amount of $27m during 2014, which we can see at the bottom of the statement under the title "Non Cash Activities: Investments in property and equipment"
- **This capital investment was most likely carried out using supplier credit resulting in increased cash flows from operations**

At the Bottom of its Cash Flow Statement, TSEM Reveals Non-Cash Capex

	Year ended December 31, 2014	2013	2012
NON-CASH ACTIVITIES			
Investments in property and equipment	$ 27,495	$ 11,161	$ 8,737
Beneficial conversion feature	$ --	$ --	$ 109,768
Equity increase arising from exchange of straight to convertible debt	$ 9,609	$ --	$ --
Conversion of convertible debentures to share capital	34,822	$ --	$ --

- To support our opinion, on the next slide we have shown how two of Tower's competitors disclose capex:

  1. <u>Taiwan Semiconductor</u>: In the current liabilities of its balance sheet, it provides a very detailed disclosure of its accounts payable which includes: 1) trade payables, 2) related party payables, and ***3) payables to contracts and equipment suppliers***
  2. <u>United Microelectronics</u>: provides details on payables related to capex at the bottom of its cash flow statements

- If we increase the Capex by an additional $27.5m, we conclude that during 2014 TSEM had a free cash flow deficit of approximately $20m (positive $7.5m free cash flows excluding Nishiwaki fab closure employee related retirement cost)

TSEM's Competitors Give Enhanced Capex Disclosure

United Microelectronics Capex Disclosure Details

	For the years ended December 31,			
	2012	2013	2014	
	NT$	NT$	NT$	US$
Investing activities partially paid by cash:				
Cash paid for acquiring property, plant and equipment				
Increase in property, plant and equipment	49,068,718	34,140,108	47,278,467	1,496,154
Add: Effect of acquisition of subsidiaries	—	89,592	—	—
Add: Payable at beginning of year	8,517,694	5,382,395	6,700,743	212,049
Less: Effect of disposal of subsidiaries	(18,107)	—	—	—
Less: Payable at end of year	(5,382,395)	(6,700,743)	(10,742,203)	(339,943)
Cash paid	52,185,910	32,911,352	43,237,007	1,368,260

Source: United Micro 2014 20-F Annual Report, p. F-9

Taiwan Semiconductor's Model Disclosure of Accounts Payable

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(In Millions of New Taiwan Dollars or U.S. Dollars)

LIABILITIES AND EQUITY	**Notes**	**December 31, 2013**	**December 31, 2014**	
		NT$	**NT$**	**US$ (Note 3)**
CURRENT LIABILITIES				
Short-term loans	19	$ 15,645.0	$ 36,158.5	$ 1,144.3
Financial liabilities at fair value through profit or loss	8	33.7	486.2	15.4
Hedging derivative financial liabilities	11	–	16,364.3	517.9
Accounts payable		14,670.3	21,878.9	692.4
Payables to related parties	37	1,688.4	1,491.5	47.2
Salary and bonus payable		8,330.9	10,573.9	334.6
Accrued profit sharing to employees and bonus to directors and supervisors	24	12,738.8	18,052.8	571.3
Payables to contractors and equipment suppliers		89,810.2	26,980.4	853.8
Income tax payable	31	36,759.4	52,388.1	1,657.9
Provisions	6, 20	7,603.8	10,445.5	330.5
Liabilities directly associated with noncurrent assets held for sale	14	–	219.1	6.9
Accrued expenses and other current liabilities	16, 23	16,693.5	29,746.0	941.3
Total current liabilities		203,974.0	224,785.2	7,113.5

Source: Taiwan Semiconductor 2014 20-F Annual Report, p. F-4

Closer Look into Contractual Obligations

- We observe that Tower lists large "short-term liabilities" in the amount of $166.9m deep in its footnotes. This figure dwarfs its reported trade accounts payable ($98.6m) and other current liabilities ($16.6m) on the balance sheet at 12/31/14
- This suggests that Tower might not be recognizing the full amount of its capex payables on its balance sheet.
- As a result, its likely that Tower's working capital condition might not be accurately portrayed

Tower's Tabular Disclosure of Contractual Obligations

The following table summarizes our contractual obligations and commercial commitments as of December 31, 2014:

	Payment Due						
	Total	Less than 1 year	2 Years	3 Years	4 Years	5 Years	After 5 years
	(in thousands of dollars)						
Contractual Obligations							
Short term liabilitie(1)	166,931	166,931	--	--	--	--	--
Loans from banks (2)	206,616	14,629	39,236	80,023	62,207	10,521	--
Debentures (3)	357,291	170,429	116,893	4,665	65,304	--	--
Operating leases	58,978	16,776	15,494	12,409	11,326	2,973	--
Construction & equipment purchase agreements (4)	7,823	7,823	--	--	--	--	--
Other long-term liabilities	15,865	4,129	746	839	923	989	8,239
Purchase obligations	31,684	12,373	10,680	6,686	1,145	800	--
Total contractual obligations	845,188	393,090	183,049	104,622	140,905	15,283	8,239

(1) Short-term liabilities include primarily our trade accounts payable for equipment and services as well as payroll related commitments.
(2) Loans from banks include principal and interest payments in accordance with the terms of agreements with the banks.
(3) Debentures include total amount of principal and interest payments for the presented periods.
As of December 31, 2014 approximately $255 million of such debentures were convertible into ordinary shares, of which $162 million has already been converted during the first quarter of 2015.
(4) Construction & equipment purchase agreements include amounts related to ordered equipment that has not yet been received.

Source: Tower 2014 20-F Annual Report, p. 55

SPRUCE POINT CAPITAL MANAGEMENT

TSEM Resorting to Accounting Games 101: Change Depreciation Assumptions to Inflate EPS

During the second quarter of 2015, Tower decided to alter its fixed assets useful lives assumption in a manner which led to a decrease in the company's depreciation expenses

According to Note D from the Q2'2015 Financial Statements:

*"In connection with periodic review of the reasonableness of the estimated remaining useful lives of property, plant and equipment of the Company's foundry manufacturing facilities*__*, it was determined that the estimated useful lives of machinery and equipment should be extended to 15 years from 7 years and the useful lives of facility systems and infrastructure should be extended to 25 years from 14 years*__*. The Company extended the estimated useful life of these assets as a result of use of mature technologies, longer processes and products' life cycles, the versatility of manufacturing equipment, facility systems and infrastructure to provide better flexibility to meet changes in customer demand and the ability to re-use equipment over several technology cycles significantly extending the estimated usage period of such assets.* __*For the three months period ended June 30, 2015, the impact of these extended estimated useful lives was approximately $14,000 of reduced depreciation expenses which resulted in a net increase of approximately $6,800 of net profit*__*."*

Accounting Assumptions for Depreciation Out of Line With Peers:

Seller	TowerJazz	United Microelectronic	Semiconductor Manufacturing Int'l (SMIC)	Vanguard Int'l Semiconductor	Taiwan Semiconductor
Machinery & Equipment (Source)	15 yrs (p. 9)	3 – 11 yrs (p. F-31)	5 – 10 yrs (p. F-28)	3 – 5 yrs (p. 159)	2 – 5 yrs (p. F-23)

Accounting Issues With Series F Convertible Debentures

In our opinion, the Series F debentures were incorrectly accounted for to understate debt and improve the appearance of TSEM's financial condition. Furthermore, by over-hyping recent deals and inflating TSEM's earnings and share price, the company could convert the Series F debentures to equity and relieve its financial burden.

- On October 25, 2010, the company announced $82m of commitments (approx. $100m ultimately raised) for Series F Convertible Debentures (Series F). Series F debentures carry an annual rate of 7.8% payable semiannually in NIS but linked to the $/NIS exchange rate. The debentures principal payment were scheduled to be paid in two installment of $53m on Dec 2015 and Dec 2016:
  - The debentures were convertible into Tower's ordinary shares during the period commencing in Sept 2012 and ending in Dec 2016, with a conversion price that shall be equal to 120% of the avg. trading price of its shares on the Tel-Aviv Stock Exchange during the 15 trading days before Sept 18, 2012, provided that in no event will the price be more than NIS 6.5, and not less than NIS 1.0
  - In 2012, Tower raised an additional $105m (Feb 2012: $80m and Oct 2012: $25m) through the expansion of Series F debentures, such that the total aggregated amount raised by Series F amounted to $231m
- The conversion price was initially 38.21 NIS par value of debentures into one ordinary share. In June 2013, the conversion ratio was adjusted to NIS 36.276 ($9.80/share)
- As reported in Q3'2012, Tower classified $110m of its Series F debentures as equity, and reduced long-term debt by a corresponding amount as disclosed below:

> *"In accordance with ASC 470-20 (formerly EITF 98-5 and EITF 00-27), a Beneficial Conversion Feature (BCF) exists for bonds series F, which has been measured in accordance with such standards at $110 thousands, classified as an increase in shareholders' equity with a correspondence decrease in the carrying value of the debentures presented as long term liabilities; said amount will be accreted through the remaining life of the debentures to the non-cash financing expenses."*

- On March 10, 2015, just one month after reporting its "Highest Ever Quarterly and FY 2014 Revenues With Strong Organic Growth," Tower offered to accelerate the conversion of $40m of Series F debentures. This conversion included a 1% benefit. The proposal was oversubscribed, such that $80m were converted. After this conversion, Series F debentures remaining principal amounted to approximately $35m
- In the next slide, we will illustrate why we believe this account presentation appears misleading, and designed to enhance the financial position of TSEM by reducing debt + overstating equity

Inflating Equity With Creative Interpretation of Beneficial Conversion Feature Accounting?

In our opinion, TSEM's interpretation of the accounting treatment for a Beneficial Conversion Feature (BCF) was not in accordance with GAAP and in particular ASC 470-20 and its specific interpretations. Therefore, we believe TSEM's debt, as of 30 September 2012, was understated by $50m to $110m and its equity overstated by the same amount

- The BCF guidance addresses situations in which a debt or equity security is issued with a nondetachable (embedded) conversion option that is beneficial to the investor (in the money) **at inception** because the conversion option has an effective strike price that is less than the market price of the underlying stock **at the commitment date**.
    - The accounting for a BCF requires that the BCF be recognized by allocating the intrinsic value (not the fair value) of the conversion option to additional paid-in capital, resulting in a discount on the convertible instrument.
- In accordance with ASC 470, the Commitment Date is defined as follows:

> "*The commitment date is the date when an agreement has been reached that meets the definition of a firm commitment*."

- Definition of a "**Firm Commitment**" - an agreement with an unrelated party, binding on both parties and usually legally enforceable, with the following characteristics:
    a. The agreement specifies all significant terms, including the quantity to be exchanged, **the fixed price**, and the timing of the transaction. The fixed price may be expressed as a specified amount of an entity's functional currency or of a foreign currency. It may also be expressed as a specified interest rate or specified effective yield. The binding provisions of an agreement are regarded to include those legal rights and obligations codified in the laws to which such an agreement is subject. **A price that varies with the market price of the item that is the subject of the firm commitment cannot qualify as a fixed price. For example, a price that is specified in terms of ounces of gold would not be a fixed price if the market price of the item to be purchased or sold under the firm commitment varied with the price of gold.**
    b. The agreement includes a disincentive for nonperformance that is sufficiently large to make performance probable. In the legal jurisdiction that governs the agreement, the existence of statutory rights to pursue remedies for default equivalent to the damages suffered by the nondefaulting party, in and of itself, represents a sufficiently large disincentive for nonperformance to make performance probable for purposes of applying the definition of a firm commitment

Source: For accounting interpretations see PWC Financing transactions: debt, equity and the instruments in between, March 2015

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Beneficial Conversion Feature Accounting (cont'd)

TSEM examined the existence of a BCF and estimated its value in relation to Series F issuance dates, while these dates didn't fulfil the definition of "commitment date" since the conversion rate was not yet known.

- **Recall The Facts**:
  1. Approx. $100m of Series F convertible debentures were issued in October 2010 and additional $105m (Feb 2012: $80m and Oct 2012: $25m) through the expansion of Series F debentures, such that the total aggregated amount raised by Series F amounted to $231m.
  2. The debentures were convertible into Tower's ordinary shares during the period commencing in Sept 2012 and ending in Dec 2016, with a conversion price equal to 120% of the avg. trading price of its shares on the Tel-Aviv Stock Exchange during the 15 trading days before Sept 18, 2012
- As of the Series F issuance date in Oct 2010, one of the most significant conditions of conversion deal was not set: the fixed conversion price
- The conversion price was set on September 18, 2012 (at the time of the determination of the conversion price). Thus, the commitment date as defined in ASC 470 is this date (assuming BCF accounting is relevant) and not the issuance dates, as assumed by TSEM
- **From the way the conversion price was determined (20% premium on the average price), it's clear that on September 18, 2012, which is the commitment date for the purpose of examining the existence of BCF, a BCF didn't exist as the conversion feature, by definition, was out of the money by 20%!**
- The accounting treatment at the initial issuance date (in 2010) - According to Note 12 of TSEM's annual financial statement 20-F 2010, Series F (as a whole) was carried at amortized cost. Tower evaluated the conversion feature in accordance with the criteria established in ASC 815-40 "Contracts in Entity's Own Equity" and concluded that bifurcation is not required (i.e., Series F as a whole, was accounted for as a liability under the amortized cost method)
- Therefore, starting with TSEM's Q3'2012 financial statements, and assuming TSEM's initial accounting treatment of Series F convertible debt described above was appropriate, we believe its shareholder's equity is inflated by approximately $50m, while on the other hand, the company's financial liabilities balance was deflated in the same amount

We Believe TSEM's Series F Debt Maturity is Artificially Low By $110m

	Interest rate	2013	2014	2015	2016
Debentures Series D	8%	$ 5,823	$ 5,823	$ 5,823	$ 5,823
Debentures Series F	7.8%	--	--	50,954	50,954
Jazz's New Notes (as defined in G below)	8%	--	--	74,585	--
		$ 5,823	$ 5,823	$ 131,362	$ 56,777

The outstanding principal amounts of Tower debentures as of December 31, 2012 and 2011 were $255,879 and $177,249, respectively.

Source: 2012 Annual Report, Note 13A

In Our Opinion, The Proper Accounting For Series F Convertible Debt

<u>In Our Opinion, The Proper Accounting Treatment for Tower's Convertible Debentures Series F:</u>

- As we learned, under U.S. GAAP significant analysis takes place before addressing a beneficial conversion feature (BCF). One must first rule out the application of embedded derivative accounting under ASC 815
- In our opinion, as of the issuance dates, an examination of whether embedded derivative exists in accordance with ASC 815, should have yielded a positive result[1]. That is, TSEM should have bifurcated Series F convertible debt and revalue the embedded derivative at fair value through P&L at every reporting period until the determination of the conversion price (the bifurcated derivative in this case is a conversion Asian (call) option, which its strike price depends on the average price of the underlying asset (Tower share price) during a predetermined averaging period).
- It should be noted that bifurcated derivatives should be reassessed every reporting period to determine if they continue to require bifurcation. That is, they are reassessed to see if they still meet the definition of a derivative and still fail to qualify for any scope exception from derivative accounting. In our opinion, in 2012 when the conversion price was set, the "fixed-for-fixed" concept (pursuant to ASC 815-40-15-5 through 15-8) was held, and the embedded conversion feature of Series F was no longer considered a bifurcated derivative.
- ASC 815-15-35-4 requires a previously bifurcated conversion option that no longer requires bifurcation to be reclassified from a liability to equity at its then-current fair value on the date of reclassification. The conversion option is not recombined with the host debt instrument. Gains or losses recognized when the bifurcated conversion option was accounted for at fair value during the period that the conversion option was classified as a liability are not reversed
- We estimated (using Black and Scholes model) that the amount to be reclassified to the equity would have been approximately $60 million (i.e. this is the estimated fair value of the embedded derivative at the conversion price determination date)
- Given the aforementioned, in our opinion, TSEM's improper accounting treatment resulted in its equity being inflated by approximately $50m as of Q3-2012 (=$110m-$60m)

1) See Appendix for a flow chart dictating the required analysis

Bank Debt Valuation Accounting Games?

- Tower's remaining bank loan principal balance as of 12/31/14 was $101m related to loans the company borrowed from Bank Leumi and Bank Hapoalim ("Israeli Banks") (Source: 2014 20-F, p.49). These loans carry a yearly interest rate of LIBOR + 3.9% and its principal is expected to be repaid over the next years until 2018. For the propose of ensuring the repayment of these loans, Tower had to pledge all of its assets as a collateral. Tower is obligated toward the Israeli Banks to maintain certain restrictive financial covenants
- TSEM disclosed the following in on page F-20 in the notes to the debt facility agreement with the Israeli Banks:

  "*Loans received under the Facility Agreement, as amended to date, are presented at fair value, with changes in value reflected in the statements of operations, following adoption by the Company of ASC 825-10 "Fair Value Option" and Tower's election to apply the fair value option to the Facility Agreement*."
- GAAP allows a company to revalue its loan principal; however, according to ASC 820, which details the fair value hierarchy and determines the priority of inputs to be used in valuation techniques, highest priority must be given to (unadjusted) quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs
- For details of the fair value hierarchy in accordance with ASC 820 see PwC's Fair Value Measurement Guide (2015) guide below:

Figure 4-3: Characteristics of Each Level in the Fair Value Hierarchy

Level	Characteristics
1	Observable Quoted prices for identical assets or liabilities in active markets (unadjusted)
2	Quoted prices for similar items in active markets Quoted prices for identical/similar items, no active market Liabilities traded as assets in inactive markets
3	Unobservable inputs (e.g., a reporting entity's or other entity's own data) Market participant (not entity-specific) perspective is still required

Bank Debt Valuation Accounting Games? (cont'd)

- As presented in the table below from TSEM's 20-F Annual Report (Note 12-A), TSEM revalued its bank debt principal by $24m (the notes further specify it to be specific to the Israeli bank debt) such that ($101m -$24m) = $77m was represented on its balance sheet as of 12/31/14.

	As of December 31, 2014	As of December 31, 2013
In U.S. Dollars, see also B and C below	$ 120,155	$ 150,155
In JPY, see also D below	73,647	10,954
Total long-term loans from banks-principal amount	193,802	161,109
Fair value adjustments	(24,026)	(22,370)
Total long-term loans from banks	169,776	138,739
Current maturities	(10,000)	(30,000)
	$ 159,776	$ 108,739

- Based on Tower's remaining loans principal "Fair Value" of $77m, and according to an estimated principal repayment schedule as detailed in the company's financial statements, and L+3.9bp cost of debt, we have calculated the embedded yield approx. 17.0%.

	12/31/14	2015	2016	2017	2018
Principal o/s	$101.0	$91.0	$77.0	$21.0	--
Principal Pmt		$10.0	$14.0	$56.0	$21.0
Approx. Interest Pmt		$4.2	$3.8	$3.2	$0.9
Total Pmt (P+I)		$14.2	$17.8	$59.2	$21.9
Maturity (yrs)		0.5	1.5	2.5	3.5

- A revaluation of the debt at year end 2014 at yield consistent with a junk credit is highly suspicious in light of the fact that just two months earlier, Tower had refinanced its bank debt at L+3.9%

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Bank Debt Valuation Accounting Games? (cont'd)

- In Note 14 (D) of TSEM's 2014 Annual Report, is details its "Fair Value Measurements" and "Valuation Techniques" details:

  "Tower's loans - for Tower's loans from the Israeli Banks, fair value is based on the income approach using a present value technique under which the cash flows used in the technique reflect the cash stream expected to be used to satisfy the obligation over its economic life. Tower discounted expected cash flows as forecasted each quarter using the appropriate discount rate for the applicable maturity based on the expected contractual payments, by observing yields on similar traded debts."

- TSEM specifies that Level 3 or **"Significant Unobservable Inputs"** were used to measure the debt's fair value:

Recurring Fair Value Measurements Using the Indicated Inputs:

	December 31, 2014	Quoted prices in active market for identical liability (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Tower's loans (including current maturities)(*)	$ 77,029	$ --	$ --	$ 77,029
Others	34	--	--	34
	$ 77,063	$ --	$ --	$ 77,063

(*) Includes only loans under Tower's Facility Agreement with the Israeli Banks.

- TSEM also discloses it has recognized a gain through earnings in respect of the measurement

	Tower's loans (including current maturities)	Others
As of January 1, 2014 - at fair value	$ 108,685	$ 47
Loan Repayment	(30,000)	--
Total losses (gains) unrealized in earnings	(1,656)	(13)
As of December 31, 2014 - at fair value	$ 77,029	$ 34
Unrealized losses (gains) recognized in earnings from liabilities held at period end	$ (1,656	$ (13)

Bank Debt Valuation Accounting Games? (cont'd)

We found that TSEM has traded debt on the Tel Aviv Stock Exchange, which could have been utilized in order to directly estimate the appropriate discount rate, which would have be classified as "Level 2." This implies that TSEM had to, first and foremost, estimate its banks loan discount rate using its traded debt, and not the "income approach" using a discounted cash flow analysis!

- As of 12/31/14, Tower's Senior Unsecured debentures, which are linked to Israeli CPI, with a duration of approximately 1.5 years (Series D) were traded at a price that reflected a 3.5% YTM (See below data from Bloomberg and Israeli's Triple-A System for bond prices). Adjusting the aforementioned yield to the bank loans and for currency risk results in an appropriate yield of approximately 5.5%.
- However, since the bank loans are secured with TSEM's assets serving as collateral (Senior Secured), a downward adjustment needs to be made from the YTM of unsecured traded debt, which we conservatively estimate at 1.0%-1.5%.
- Given the aforementioned Series D YTM, and the appropriate adjustments (duration, currency and seniority), we believe that the bank loans' contractual interest (LIBOR + 3.9%) represent fair market conditions
- As a result, it is our opinion is appears that TSEM' revaluation of its banks loans, as of 12/31/14, and in complete contrast to generally accepted accounting principles, inflated the company's shareholder's equity in an estimated net (after adjusting for taxes) amount of $20m

Series B4 - Tower <u>Straight</u> Bond (traded in the Tel-Aviv Stock Exchange) (2)

Date	Dirty Price	Duration (in Years)	YtM (real yield in %)	Spread over Benchmark (in bps)	Ranking	Amt. Outstanding (ILS)
31/12/2014	128.20	1.47	3.54	372	Sr Unsecured	38,598,341

Series C6 - Tower <u>Convertible</u> Bond (traded in the Tel-Aviv Stock Exchange) (3)

Date	Dirty Price	Duration (in Years)	YtM (nominal yield in %)	Spread over Benchmark (in bps)	Ranking	Amt. Outstanding (ILS)
31/12/2014	142.90	1.49	-11.39	-1,197	Sr Unsecured	738,513,648

(2) Inflation linked bond denominated in ILS - Coupon & Principal linked to Israeli CPI.
(3) USD Linked Bond denominated in ILS- Coupon & Principal linked to USD/ILS exchange rate.


EG693264 Corp | 98 Export to Excel | Page 1/1 | Historical Price Table
TSEMIT 8 01/01/17
Range 12/01/2014 - 01/15/2015 | Period Daily
Market Last Price | Last Yield To | Currency ILs
View Price Table | Source EXCH
High 135.50 on 12/01/14
Low 126.66 on 12/21/14
Average 131.49 3.341
Net Chg -5.33 -3.93%

	Date	Last Price	Last Yiel...		Date	Last Price	Last Yiel...		Date	Last Price	Last Yiel...
Th	01/15/15	130.17	2.543	Th	12/25/14	128.00	3.605	Th	12/04/14	135.27	3.478
We	01/14/15	130.50	2.358	We	12/24/14	128.00	3.599	We	12/03/14	135.24	3.491
Tu	01/13/15	130.50	2.353	Tu	12/23/14	127.53	3.847	Tu	12/02/14	135.17	3.535
Mo	01/12/15	130.50	2.349	Mo	12/22/14	127.02	4.118	Mo	12/01/14 H	135.50	3.276
Su	01/11/15	130.24	2.485	Su	12/21/14 L	126.66	4.308				
Th	01/08/15	129.09	3.098	Th	12/18/14	135.00	3.623				
We	01/07/15	130.00	2.596	We	12/17/14	135.00	3.613				
Tu	01/06/15	130.00	2.591	Tu	12/16/14	133.06	5.167				
Mo	01/05/15	130.29	2.430	Mo	12/15/14	134.63	4.095				
Su	01/04/15	129.69	2.749	Su	12/14/14	134.86	3.900				
Th	01/01/15	129.69	2.733	Th	12/11/14	135.47	3.392				
We	12/31/14	128.20	3.537	We	12/10/14	135.47	3.382				
Tu	12/30/14	127.99	3.645	Tu	12/09/14	135.47	3.373				
Mo	12/29/14	128.00	3.633	Mo	12/08/14	135.40	3.417				
Su	12/28/14	128.00	3.626	Su	12/07/14	135.10	3.638				

Source: Bloomberg

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Declining Transparency on Material Bank Debt Covenants

Disturbing pattern of TSEM providing shareholders less and less visibility into its material financial bank debt covenants. Is it a coincidence that discussion about the covenants was reduced leading up to the "momentous" and "revolutionary" business agreement with Panasonic?

- **In its 2014 20-F Annual Report (Note 11B, p. F-20), Tower omits financial disclosure of the key and material covenants it is expected to maintain:**

  "The Facility Agreement also contains certain restrictive financial ratios and covenants. Satisfying these financial ratios and covenants is a material provision of the Facility Agreement. If, as a result of any default, the Israeli Banks were to accelerate Tower's obligations, Tower would be obligated, to, among other things, immediately repay all loans made by the Israeli Banks plus penalties, and the Israeli Banks would be entitled to exercise the remedies available to them under the Facility Agreement, including enforcement of their liens against all of Tower's assets. The Facility Agreement contains. among others, (i) a mechanism for early repayment of certain principal amounts based on excess cash flow Tower may incur; (ii) required financial ratios and covenants Tower has to meet, as well as definitions of event of defaults."

- **From an examination of the company's 2011 20-F Annual Report (p. 48 and filed April 4, 2012), we found the following**:

  "Under the terms of its amended facility agreement, Tower must meet certain financial ratios, including mainly financial covenants relating to quarterly sales and quarterly EBITDA (earnings excluding interest, taxes, depreciation and amortization). Under the terms of the amended facility agreement, satisfying these financial ratios and covenants is a material provision."

- **And further from the 2010-F Annual Report (p. 49):**

  "Under the terms of its amended facility agreement, Tower must meet certain financial ratios, including mainly financial covenants relating to quarterly sales, quarterly earnings before interest, taxes, depreciation and amortization (quarterly EBITDA), "life of loan coverage ratio" (which is the ratio of the Fab 2 net cash flow to the total debt related to Fab 2 in any quarter), ratio of debt to EBITDA and ratio of equity to assets. Under the terms of the amended facility agreement, satisfying these financial ratios and covenants is a material provision"

Are Shareholders Telegraphing that TSEM's Share Price is Overvalued?

TSEM's Largest Shareholder "Long-Term" View

What Exactly Is Meant By "Long-Term"
Within Two Years, Israel Corp Would Completely Liquidate Its 39% Position

Israel Corporation Has Elected to Convert All of Its TowerJazz Capital Notes into Ordinary Shares

Israel Corporation Stated It Has No Intention to Trade or Sell the Ordinary Shares and Will Hold Them as a Long-Term Strategic Investment

MIGDAL HAEMEK, Israel, March 25, 2013 – TowerJazz, the global specialty foundry leader, today announced that the Israel Corporation, its major shareholder, has elected to convert all its capital notes into approximately 13.7 million ordinary shares of the Company. IC stated in its recent annual report filed on March 21, 2013 that it has no intention to trade or sell the ordinary shares it holds, totaling approximately 39% of the Company's ordinary shares.

Nir Gilad, Israel Corporation CEO, stated: "The conversion of our capital notes into shares is in line with our long term investment in TowerJazz, our belief in TowerJazz's strategy and our wish to become a major shareholder with 39% strategic ownership. As we stated in our financial statements, we have no intention to sell or trade these shares".

Source: Tower Press Release, March 25, 2013

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Coincidence That TSEM's Largest Shareholder Recently Liquidated

Is it just a coincidence that TSEM's largest shareholder decided to distribute its shares in-kind at a multi-year high in the stock, and following "record financial results."

- Up until 1/7/15 ("the Structure Split Date"), Israel Corporation Limited (Symbol: ILCO), which is one of Israel's largest holding companies, was the majority shareholder in Tower holding 27% equity stake
- On the Structure Split Date, Israel Corp operations were split, such that:
  - Its high quality holdings (cash cows) remained in direct ownership (Israel Chemicals and Bazan Group),
  - Its less successful holdings, such as Zim, Qoros and Tower, were transferred to Kenon Holdings Ltd., a company denominated in Singapore and traded on NYSE and TASE under the ticker "KEN"
- Simultaneously, Israel Corp distributed the Kenon shares as dividend in kind to its shareholders resulting in Israel Corp balances being clean from any Kenon holdings.
- On April 30, 2015, Tower's parent company Kenon proposed to its shareholders that it would distribute its Tower share as dividend in kind
  - The distribution considered some, or all, of the 18,030,041 ordinary shares of Tower held by Kenon, as well as 1,699,795 ordinary shares of Tower underlying the 1,699,795 Series 9 Warrants of Tower held by Kenon
- On May 27, 2015, Kenon approved the distribution of its Tower shares
  - 100% of the Kenon shareholders voting at the EGM voted in favor of the Proposal
- In light of our belief that Tower has poor free cash flows, and illiquid assets with limited marketability, it appears to have had few options of repaying its $197m of outstanding Series F debentures due in June 2015
- The conversion of Series F debentures totaling approximately $200m prevented Tower from the possibility of reaching insolvency, strengthen its shareholder's equity, and reduced its financing expense all at the expense of significant dilution of its shareholders (which by now are accustomed to dilution after many rounds of dilutions over the years of Tower operations)

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Israeli Institutions Have Dumped Their TSEM Equity Positions….

Major Owners as of March 31, 2013

Identity of Person or Group	Percent of Class(1)	Percent of Class (Diluted)(2)
Israel Corporation Ltd. (3)	39.49%	18.78%
Bank Leumi Le-Israel, B.M (4)	15.45%	8.42%
Bank Hapoalim, B.M (5)	15.99%	8.80

Source: 2012 20-F Annual Report

Major Owners as of April 30, 2014

Identity of Person or Group	Percent of Class(1)	Percent of Class (Diluted)(2)
Israel Corporation Ltd.	38.28%(3)	18.92%
Bank Leumi Le-Israel, B.M.	7.13%(4)	3.62%
Bank Hapoalim, B.M.	11.11%(5)	5.86%

Source:2014 Notice of General Shareholder Meeting

Current Owners

Two Israeli Shareholder Have Liquidated With Bank Hapoalim Reducing Ownership to 4.8%

Source: 2015 Notice of General Shareholder Meeting and 13D/A Bank Hapoalim filed 1/11/16

Something To Consider!

Why Did The Israeli Banks and Institutions That Helped Fund and Restructure TSEM Just Eliminate/Reduce Their Holdings? What did they know that foreign investors do not?

Spruce Point Capital Management

Not The First Time Shareholders' Have Ditched TSEM's Stock

Tower's former strategic shareholders primarily invested in the production of Fab 2. They were eventually diluted into non-existence. Not a single strategic shareholder remains today

% Fully Diluted Share Ownership						
Beneficial Shareholder	2002	2005	2007	2008	2009	2010
Sandisk Corp	11.66%	10.33%	5.14%	2.43%	1.83%	--
Alliance Semiconductor	11.60%	9.52%	--	--	--	--
Macronix Int'l	11.26%	7.04%	2.61%	1.23%	--	--
Ontario Teachers Pension	7.43%	--	--	--	--	--
Source	Source	Source	Source	Source	Source	Source

Valuation Disconnect: Seeing Through the Stock Promotion and Analyst Kool-Aid

Spruce Point Capital Management

TSEM Has Received Significant Brokerage Support in the U.S.

Promoting Broker	Initiation	Conference Date	Notes
Rodman & Renshaw	Initiation: 9/12/10 "Market Outperform/Aggressive Risk, $2 Price Target" Note: Analyst Kumar would later re-initiate a buy at Maxim Securities in May 2012 and re-initiate at Imperial Capital in June 2014	8/18/10 8/24/11	Rodman & Renshaw Halts Broker Dealer Business Rodman & Renshaw Shuts Down China Research Amid "Market Conditions" aka no buyers for China Fraudcaps
Kaufman	--	9/14/10	Kaufman Bros Closes Down
LD Micro	--	12/2/14	Why is TSEM (billion dollar mkt cap) presenting at a conference with speculative microcaps and others targeted by short-sellers such as MGNA, BOFI, BTX?
Roth Capital	--	3/15/10	Roth Capital Reverses Course on China after a string of corporate-accounting scandals
Ascendiant Capital	--	1/26/15	Promotional call with TSEM management
Chardan Capital	Initiation: 2/3/10 "Despite its checkered past and weak balance sheet, Chardan analyst believes the company has turned the corner and as such offers investors an opportunity to put new money to work in a growing company."	--	Chardan also linked to China fraud underwriting – speculative foreign company underwriting
Oppenheimer	Initiation: 12/14/15 Initiating with Outperform & $20 PT "With a revenue run-rate of $1B and demand outstripping TSEM's supply, we see the company as a unique growth story with improving GMs/FCFs"	8/11/15 7/25/11	Oppenheimer also involved with questionable China IPOs. Recent Spruce Point shorts covered by Oppenheimer include: NCR, AMETEK, iRobot
Collins Stewart		7/2/2008	Collins Stewart acquired by Canaccord!

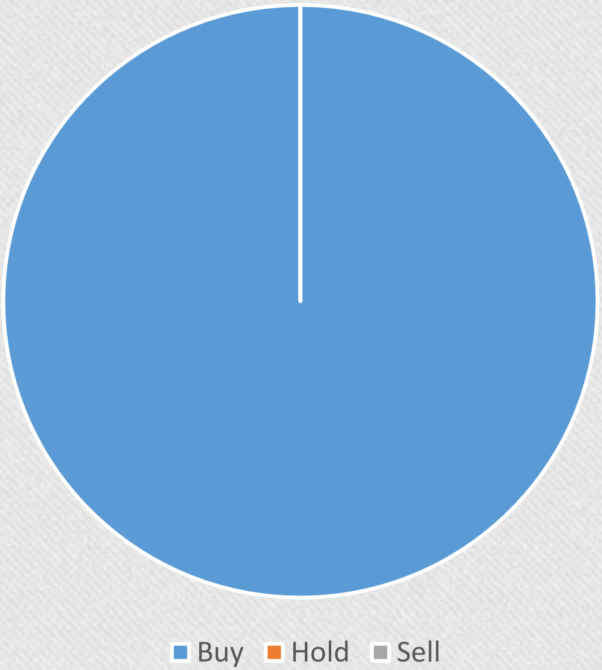
Spruce Point Capital Management

It's Unanimous: Wall St. Analysts Say "Buy!"

TSEM analysts see average upside to $22/share or 47% above the current trading price. Notably, analysts base their price targets on Tower's Non-GAAP EPS which we pointed out excludes depreciation and amortization and is not industry standard presentation.

Broker	Rating	Price Target
Drexel Hamilton	Buy	$28
Chardan	Buy	$24
Craig-Hallum	Buy	$22
Bank Hapoalim**	Buy	$21
Oppenheimer	Outperform	$20
Leader Capital	Buy	$17
	Average Price **% Avg Upside** **% Max Upside**	**$22.00** **76%** **124%**

Buys vs. Holds



** A current TSEM shareholder of course says Buy!
Upside based on $12.50 stock price
Source: Bloomberg

SPRUCE POINT CAPITAL MANAGEMENT

Don't Be Fooled By TSEM's Seemingly "Cheap" Valuation

Typically, you get what you pay for and there is no free lunch with investing. We believe TSEM is cheap because it trades on highly "adjusted Non-GAAP" results, yet has not proven an ability to generate sustained free cash flow. It is not unreasonable to value TSEM on a multiple of revenue and compare its valuation to Magnachip, a foundry services provider that loses money, and had accounting issues come to light.

$ in millions, except per share figures

				'15E-'16E				Enterprise Value				Net Debt/
		Stock Price	Ent.	Revenue	EPS	P/E		EBITDA		Sales		2015E
Name	Ticker	1/14/2016	Value	Growth	Growth	2015E	2016E	2015E	2016E	2015E	2016E	EBITDA
Taiwan Semi	TSM	$20.48	$96,680	6.4%	-3.4%	11.5x	11.9x	5.9x	5.4x	3.7x	3.5x	-0.5x
United Micro	UMC	$1.67	$4,345	-1.3%	-14.3%	11.9x	13.9x	2.6x	2.3x	1.0x	1.0x	0.1x
Semi. Mft Int'l	SMI	$4.63	$4,812	15.3%	-10.8%	NM	14.0x	6.5x	5.6x	2.2x	1.9x	0.4x
Amkor	AMKR	$5.65	$2,367	35.3%	31.3%	17.7x	13.5x	3.5x	3.0x	0.8x	0.6x	1.5x
Marvell Tech	MRVL	$8.29	$1,944	-7.2%	21.4%	19.7x	16.3x	6.4x	6.4x	0.7x	0.8x	NM
Magnachip	MX	$3.72	$283	1.8%	-4.1%	NM	NM	NM	NM	0.4x	0.4x	NM
			Max	35.3%	31.3%	19.7x	16.3x	6.5x	6.4x	3.7x	3.5x	1.5x
			Average	8.4%	3.4%	15.2x	13.9x	5.0x	4.6x	1.5x	1.4x	0.4x
			Min	-7.2%	-14.3%	11.5x	11.9x	2.6x	2.3x	0.4x	0.4x	-0.5x
TowerJazz	**TSEM**	**$12.50**	**$1,564**	**13.7%**	**23.3%**	**5.2x**	**4.2x**	**6.4x**	**4.5x**	**1.6x**	**1.4x**	**0.7x**

Source: Company financials, Wall St. estimates.

TSEM "looks cheap" on large revenue and EPS growth estimates, but in our opinion, the revenue and EPS quality are very low. There is not enough evidence to suggest that TSEM's earnings translate to Free Cash Flow

Magnachip / MRVL are great comps for TSEM, both having been ensnared in recent accounting scandals. MX is the more relevant of the two since it operates an outsourced foundry service business.

Recent Semiconductor Companies Dogged With Accounting Issues

Recent accounting scandals in the semiconductor industry have taken a long time to unfold, and have blind-sided investors with steep losses. Each of Marvell and Magnachip currently trade at approx. 0.5x – 0.8x 2016E revenues.

Magnachip

Magnachip is designer and manufacturer of analog and mixed-signal semiconductor products and offers foundry services

3/6/14: Issues non-reliance on financials; Audit Committee determines incorrect recognized revenue on certain transactions, and a determination of one or more material weaknesses over internal controls and reporting.
Oct 2014: Identified numerous accounting errors, most of which involved revenue recognition, COGS, inventory reserves, fixed asset capitalization, and expense recognition and allocation. It also identified deficiencies regarding business practices related to distributors, non-distributor customers and vendors.
2/13/15: Completes restatement, holds conf-call, disappoints investors
12/10/15 and 12/28/15: Settles shareholder litigation; Director resigns

Source: Google Finance

Marvell Technologies

Marvel designs, develops and markets analog and mixed-signal, digital signal processing and embedded and standalone integrated circuits

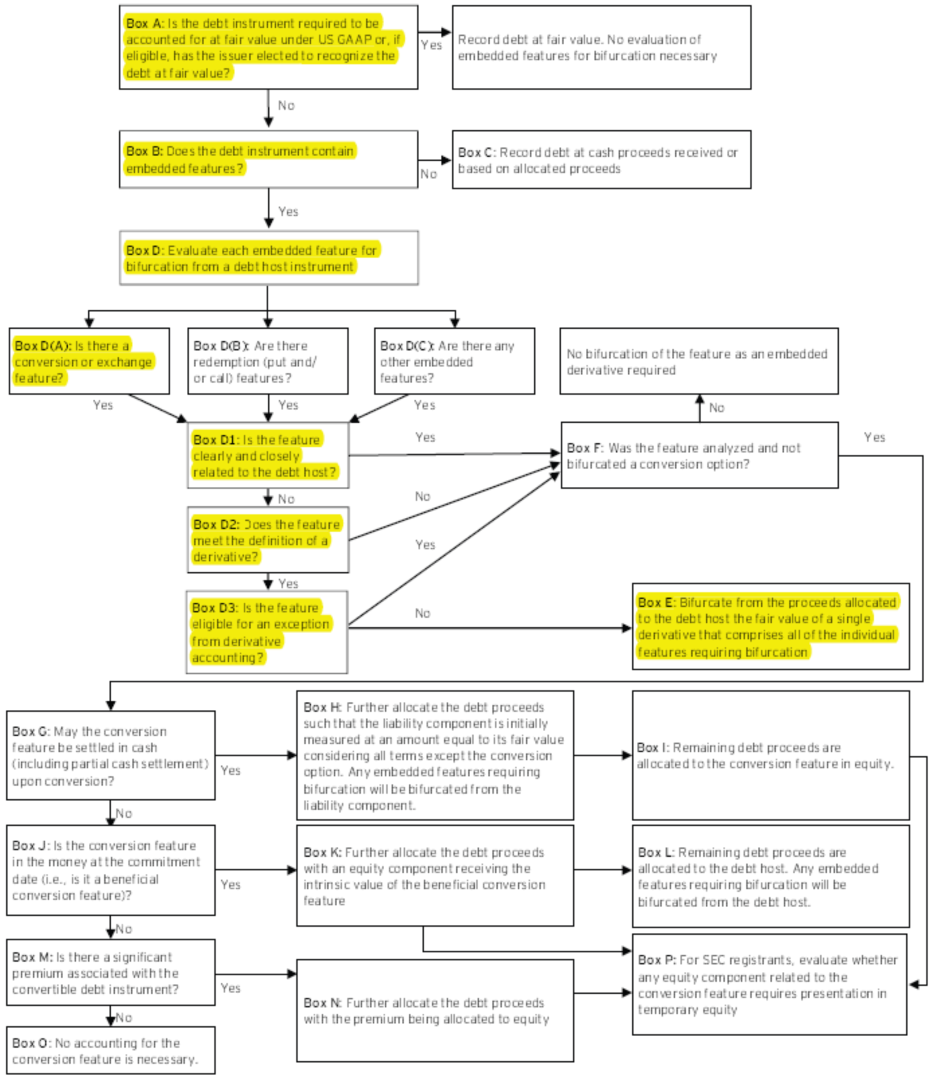
9/11/15: Announces the Audit Committee is conducting an independent investigation of certain accounting and internal control matters consisting of a review of certain revenue recognition issues Q2'2016 and associated issues with whether senior management's operating style during the period resulted in an open flow of information and communication to set an appropriate tone for an effective control environment.
10/20/15: Announces the resignation of its Auditor PwC

Source: Google Finance

Appendix

Evaluating Tower's Accounting For The Beneficial Conversion Feature

The following flowchart summarizes the analysis at a conceptual level and should be used in conjunction with the interpretive guidance that begins after the flowchart.



Source: E&Y Issuer's Accounting for Debt and Equity Financings, Oct 2015

Decision Tree Analysis

1) **Box A: Is the debt instrument required to be accounted for at fair value under US GAAP or, if eligible, has the issuer elected to recognize the debt at fair value?**

   Answer: No.

   The debt instrument doesn't require fair value application, and the company has not elected the fair value method (under ASC 820).

2) **Box B: Does the debt instrument contain embedded features?**

   Answer: Yes.

   The instrument (Series F) is a convertible bond (hybrid instrument). As such, it comprised of a debt host and a conversion option (embedded feature).

3) **Box D: Evaluate each embedded feature for bifurcation from a debt host instrument. Box D(A): Is there a conversion or exchange feature?**

   Answer: Yes.

   The debt instrument includes conversion option.

4) **Box D1: Is the feature clearly and closely related to the debt host?**

   Answer: No.

   The economic characteristics and risks of the embedded feature are not clearly and closely related to the economic characteristics and risks of the host contract.

5) **Box D2: Does the feature meet the definition of a derivative?**

   Answer: Yes.

   A separate instrument with the same terms as the embedded derivative would be considered a derivative instrument subject to derivative accounting (the initial net investment for the hybrid instrument should not be considered to be the initial net investment for the embedded derivative).

6) **Box D3: Is the feature eligible for an exception from derivative accounting?**

   Answer: No.

   The conversion price for the Series F Convertible Debentures was unknown at the original issue date (October 2010), and it shall be equal to 120% of the average trading price of the Company's ordinary share on the Tel-Aviv Stock Exchange (TASE) during the 15 trading days in Israel before September 18, 2012. Therefore, the "fixed-for-fixed" concept wasn't held due to the fact you don't know what would be the conversion price (and therefore, you don't know what would be the conversion ratio, i.e., the number of common shares received at the time of conversion for each convertible security).

7) **Conclusion (Box E): Bifurcate from the proceeds allocated to the debt host the fair value of a single derivative that comprises all of the individual features requiring bifurcation.**