

**2014 Off to a Weak Start**

***Seeking the Bottom—Are We There Yet? Waiting for Visibility to a Recovery***

The good news is that the bad news I had expected is occurring: semiconductor sector share prices have retreated amid a discouraging 4Q earnings season offering an outlook to an even weaker 1Q. And the even better news is that we are closer to the recovery following that correction that I believe will amply reward investors who most correctly identify the bottom of the trough. So. The big question is: ‘Have we already seen that near-term bottom?’ The honest answer is maybe, but I am going to hold off with such a declaration until a profile of the seasonal 2Q recovery begins to emerge. Timing is still key for 2014.

**December Weakness Marginally Better:** Worldwide semiconductor industry revenue declined by a marginally better-than-average -2.0% sequentially during December, according to statistics released by the Semiconductor Industry Association (SIA) earlier this month. This compares to an average loss of -2.6% with a high of +3.3%, a low of -16.6%, and contractions 21-times in the last 23 years—including each of the last 13 years. The Americas and Asia-Pacific both declined the least at -1.3% followed by Europe at -3.9%. Japan trailed at -4.8%.

Next month’s release of January data is usually as bad as December: it has averaged a loss of -2.5% with a high of +1.0%, a low of -12.2%, and declines 20-times in the last 23 years.

**4Q Decline:** 4Q fell by -0.8% sequentially, which was somewhat better than expected by still weak by historical standards. The specific range of weighted sales from my Universe from the 3Q earnings season called for a decline centered at -1.7% ranging from -4.5% to +1.1%, and preannouncements raised the mid-point to -1.6% and narrowed the range to -4.1% to +0.9%. Six of the 11 preannouncements reiterated or narrowed their ranges, while three raised guidance and two lowered it. With the 4Q earnings season nearing completion, results have been ‘mixed’ relative to investor expectations with 46% of companies reporting a mixed bag of (mostly earnings) upside and (mostly revenue and outlook) downside. The chip industry has averaged a 4Q sequential gain of +1.5% with a high of +16.6% and a low of -24.2%, but has been negative nine times in the last 23 years including five of the last six.

The worldwide economy has been fragile but growing at a slow pace; PC markets have been declining; consumer markets have been lackluster (think flat TVs and smartphones cannibalizing digital cameras); and higher-growth expectations for both China (in general) and smartphones and tablets (in particular) largely tempered. Respectable 3Q sequential growth exceeded expectations supported by continued strength from automotive and industrial markets, new video game platform introductions, persistent inertia from smartphones and tablets, as well as gains from communication infrastructure markets—but could not offset adverse seasonality 4Q. DRAMs have also accounted for noticeable strength as market prices rallied following supplier consolidation with the Micron acquisition of Elpida and a production shortfall due to a fire in a large manufacturing facility at supplier Hynix.

**1Q Down Again:** As of this writing, 80 companies in my Universe of 97 have reported 4Q earnings and offered 1Q guidance—which is pretty weak around a decline of -5.5% that is significantly below seasonal norms. The specific range of weighted sales from the 4Q earnings season is calling for a decline centered at -5.6% ranging from -8.2% to -3.1%. The semiconductor industry has averaged a 1Q sequential decline of -2.1% with a high of +8.8% and a low of -19.4%, but has been negative 14-times in the last 23 years—including seven of the last nine.

**Chip Sector Stocks Retreat but Outperform:** Semiconductor sector stocks declined during January, but managed to outperform even worse performance by broader equity markets. The Philadelphia Semiconductor Index Option (SOX) fell by -1.1% last month, although the average stock in the Tokeneke Universe actually grew by +1.8% with 44 out of 97 issues advancing. This was better than broader equity market drops from the NASDAQ, S&P500 and DOW of -1.7%, -3.6%, and -5.3%, respectively.

January				Indices	
Winners (44/97)		Losers		Jan	
NLST	109.5%	AMCC	-24.5%	SOX	-1.1%
VIMC	45.4%	MX	-18.9%	SMH	-3.0%
SQNS	35.5%	IKAN	-16.7%	NASDAQ	-1.7%
MONT	34.8%	ACTS	-16.4%	S&P500	-3.6%
SMI	26.2%	CRUS	-14.3%	DOW	-5.3%
average stock +1.8%		SOX -1.1%			

**2013 is Past:** The semiconductor industry grew by +4.8% during 2013—maybe a bit better than fading expectations, but solidly in the mid-single digits consistent with original forecasts. And 2014 appears very similar.

**Industry Sales Growth Forecasts**

<b>Source</b>	<b>2014</b>
SIA/WSTS	4.1%
IDC	2.9%
IHS iSupply	5.4%
IC Insights	8.0%

**2014 is Prolog:** I'm sticking with my forecast for 2014 from last month: Semiconductor industry business conditions will continue to grow at the slow pace and pattern established over the last couple of years, but chip sector share prices will experience a correction before recovering throughout the balance of the period.

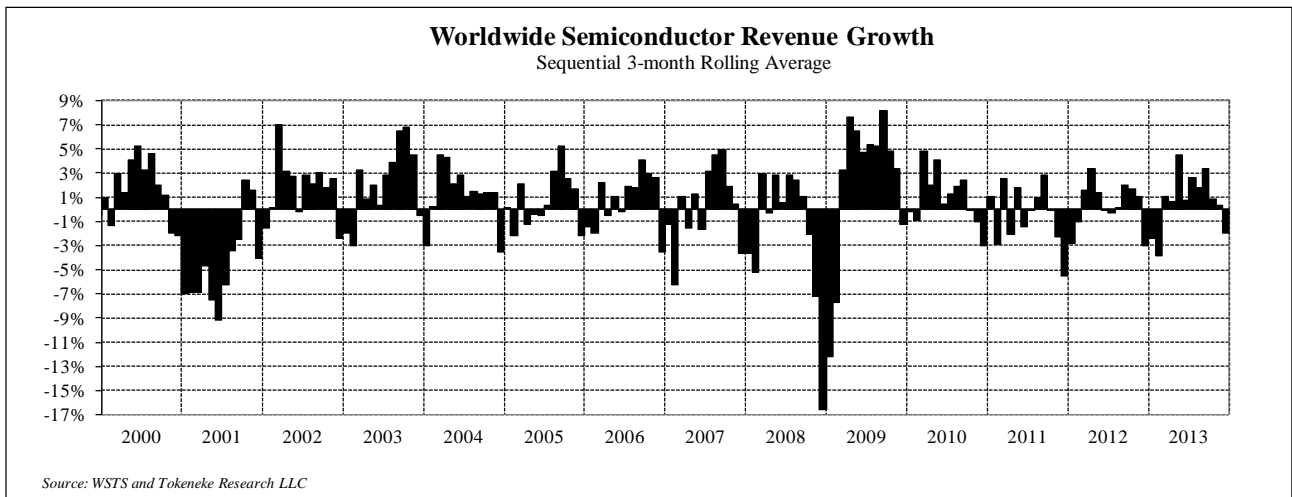
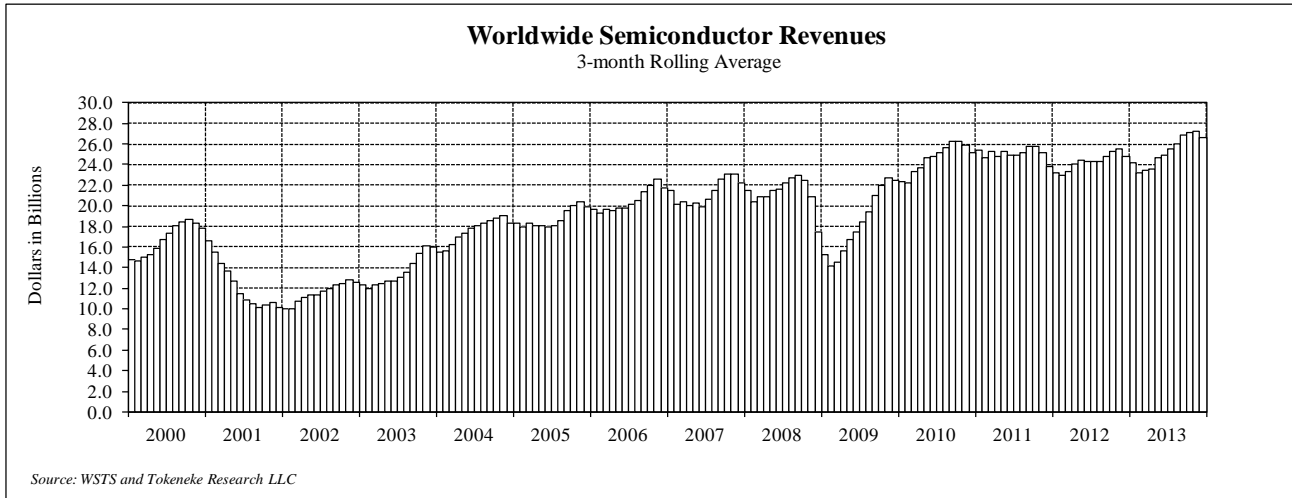
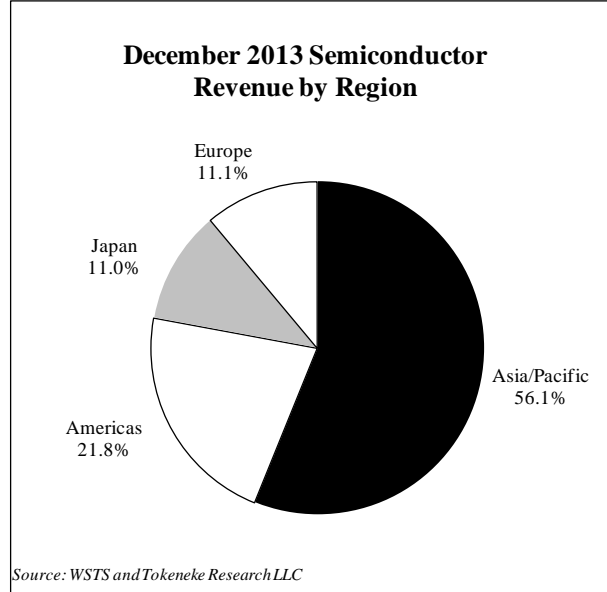
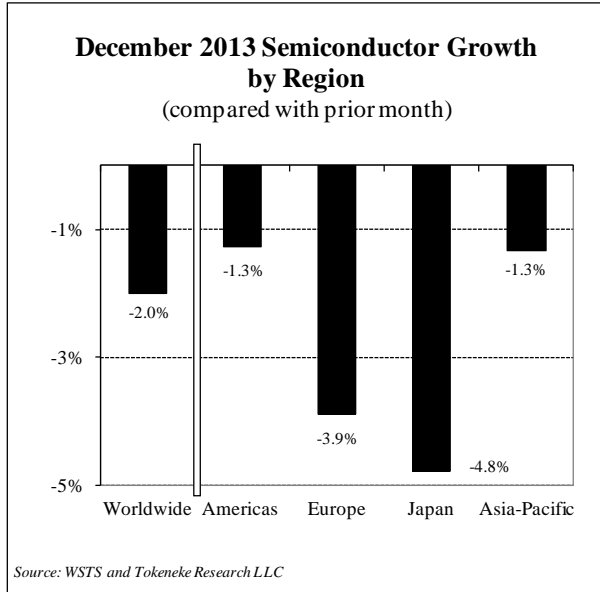
Several years ago semiconductor industry seasonality largely tracked PC market supply characteristics, with a weaker first half of the year including a trough during 2Q, followed by a stronger second half with a 4Q peak. But the world changed after the financial crises in 2008: anemic worldwide macroeconomic conditions have accentuated the relative impact of seasonal business fluctuations; and the rise of the smartphone—and triumph over the PC in terms of total chip sales—has shifted industry seasonality to be more consistent with the traditional consumer market pattern of a 1Q trough, 2Q recovery, 3Q peak and then 4Q decline. While this is very much a gross over-simplification of a \$300B+ industry with many moving parts across a variety of products, geographies and markets, I also don't consider it necessarily inaccurate.

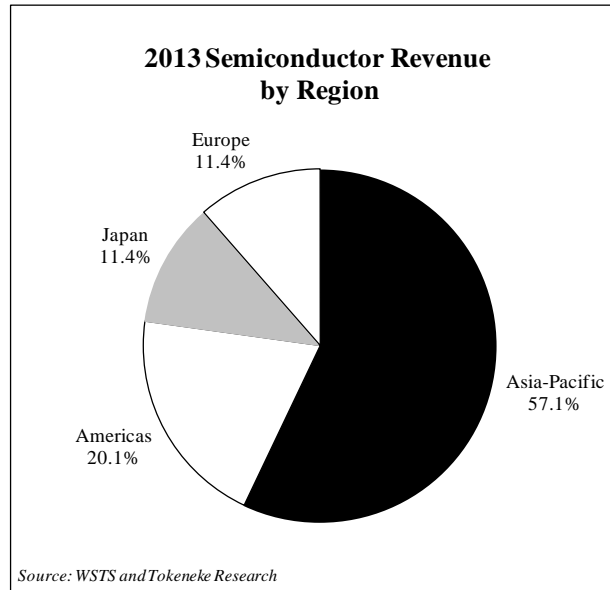
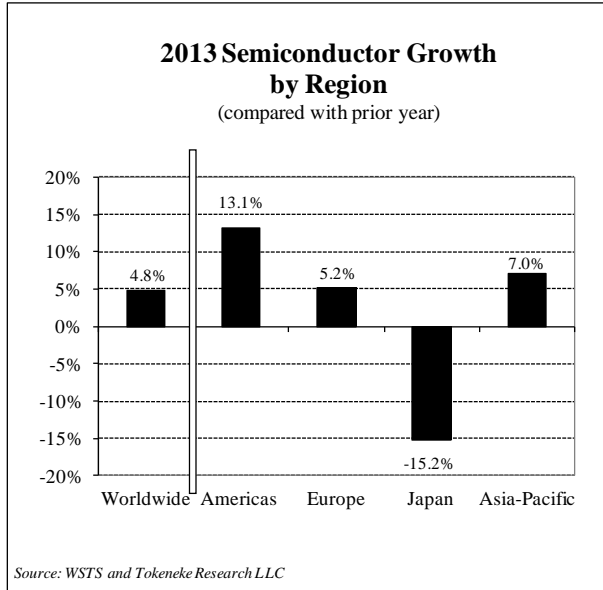
The general pattern of 'consumer market' seasonality has largely played out across the semiconductor industry over the last couple of years, and given persistently lackluster macroeconomic conditions I don't foresee much of a change to that pattern this year.

The big question is: 'Have we already seen that near-term bottom?' The honest answer is maybe, but I am going to hold off calling a bottom in chip sector share prices until a profile of the seasonal 2Q recovery begins to emerge.

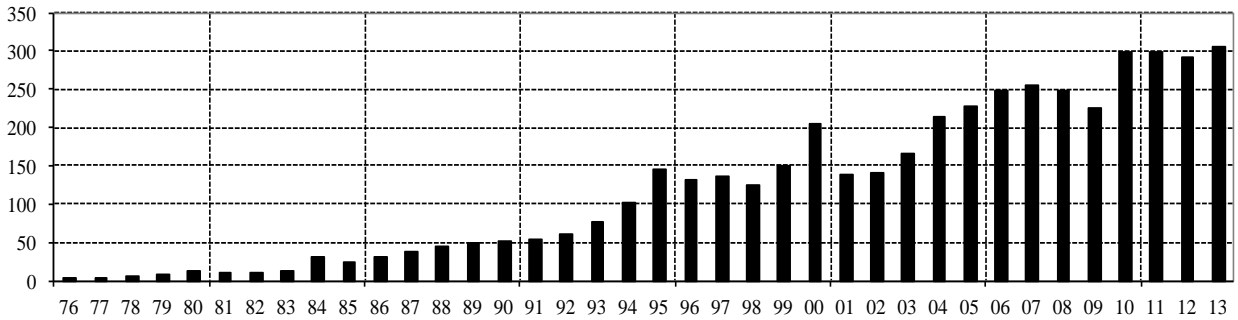
**Timing is Still Key:** 2014 can be a year of opportunity for chip sector equities, but we need to wait for the storm to pass first, in my opinion. The 4Q earnings season has not been very encouraging, as expected—especially considering the outlook it is providing to 1Q. But business conditions will improve, eventually, and that could very well create an attractive and rewarding environment for investors. Timing is still key for 2014.

**—Dan K. Scovel**  
*Semiconductor Analyst*

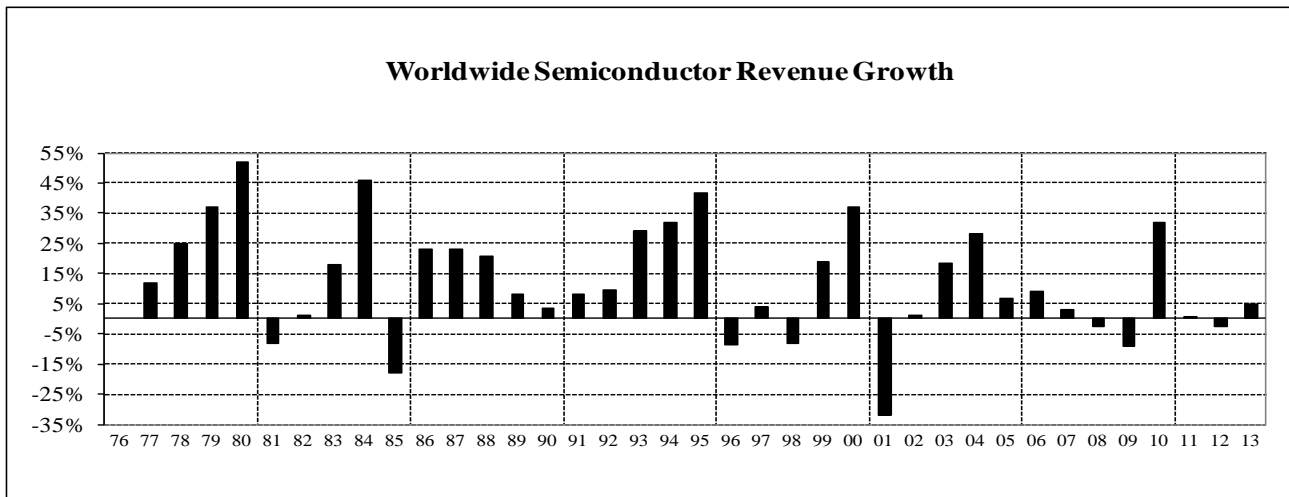




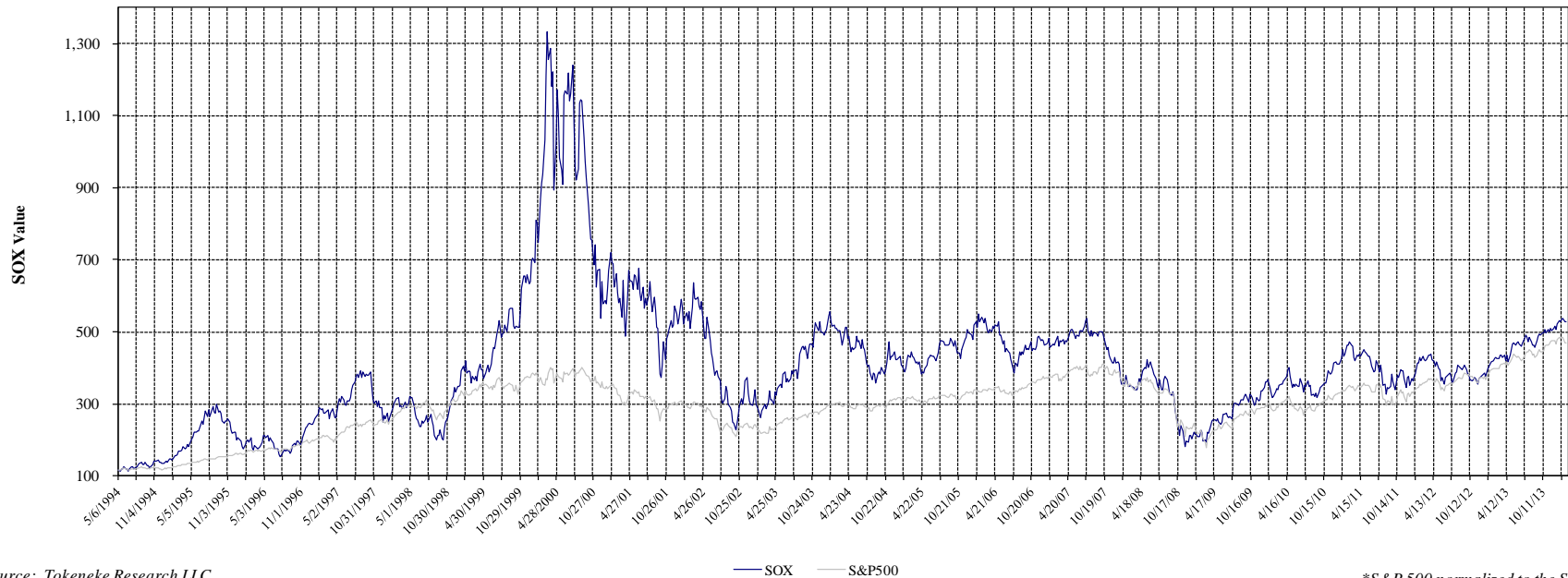
### Worldwide Semiconductor Revenue (\$ billions)



### Worldwide Semiconductor Revenue Growth

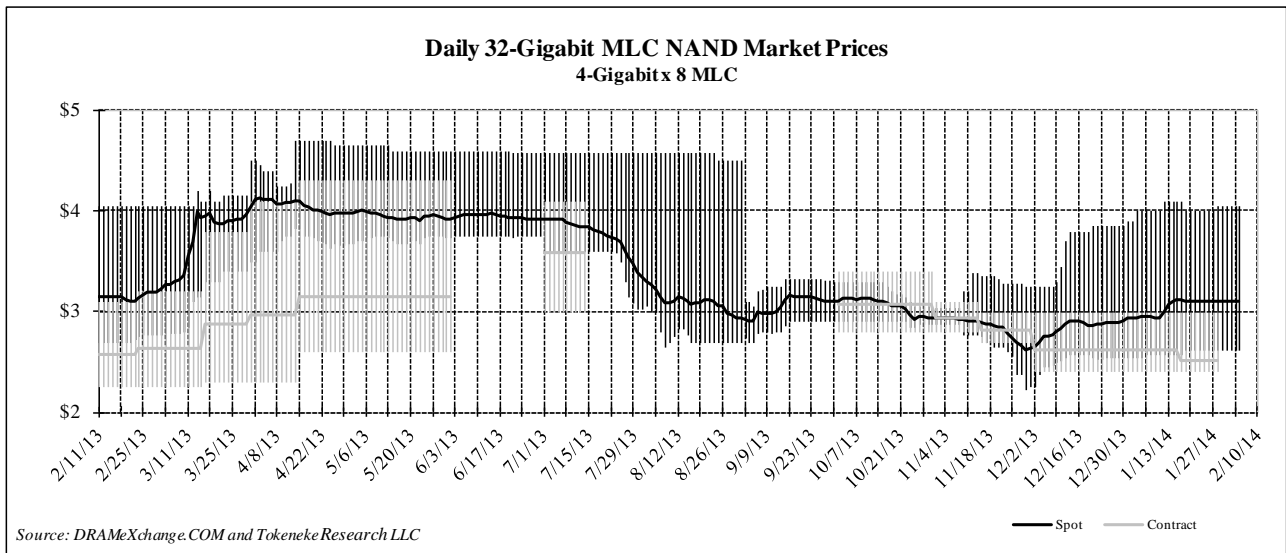
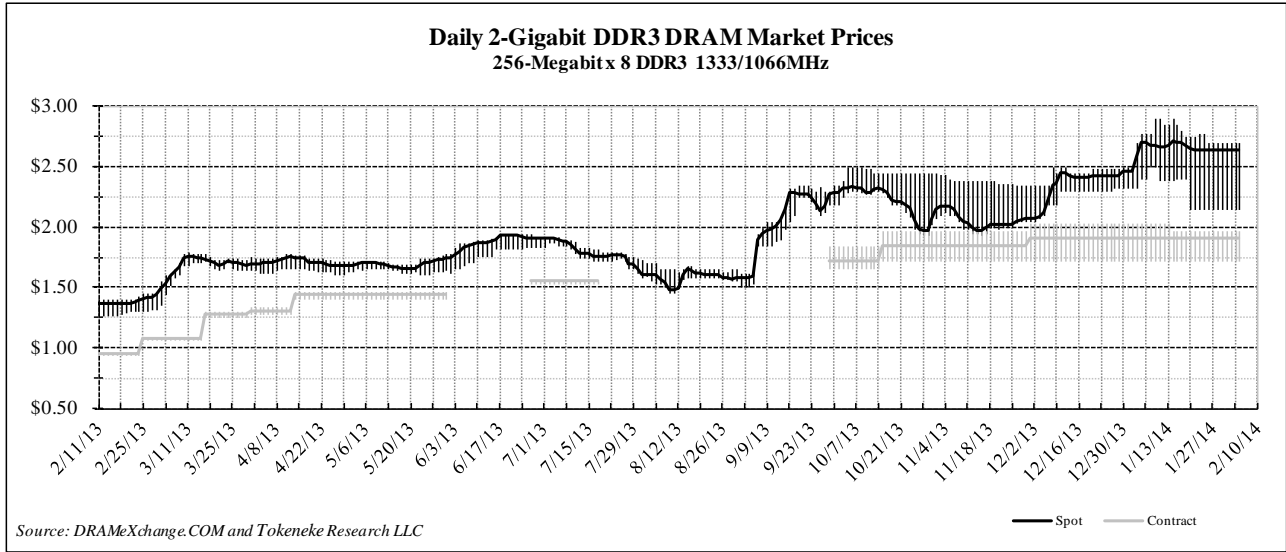


### Weekly Philadelphia Semiconductor Index Option (SOX) vs. S&P 500

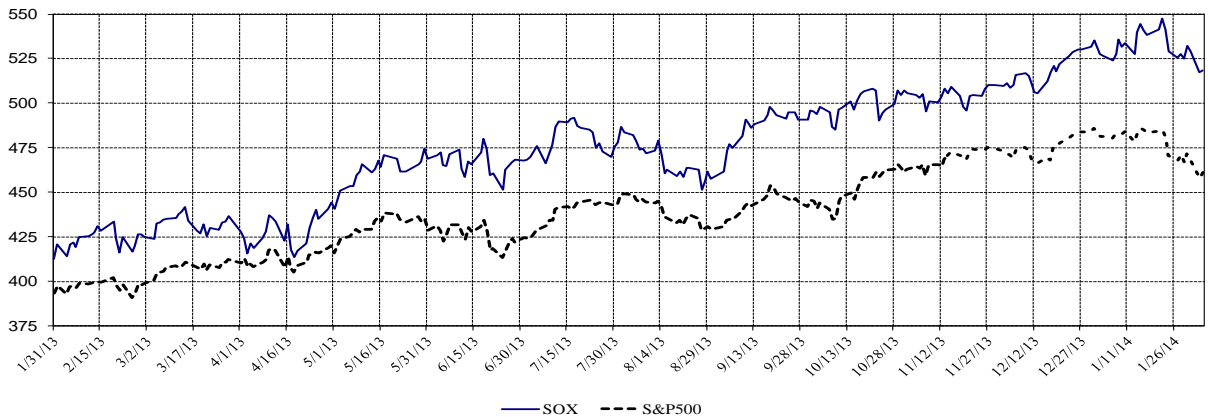


Source: Tokeneke Research LLC

\*S&P 500 normalized to the SOX



### Daily Philadelphia Semiconductor Index Option (SOX) vs. S&P500 Daily Close, Trailing 12-months



\*S&P 500 normalized to the SOX

## **The Company**

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## **My Background**

I have an electrical engineering background, nearly 12 years of semiconductor industry experience, and was on Wall Street for nearly eight years where I was selected as the Best On The Street semiconductor analyst for 2002 by The Wall Street Journal, and third-rated Best of the Best across all sectors.

I obtained my undergraduate BS degree in electrical engineering from the University of Washington, and my MBA from Santa Clara University. My industry experience consists of nearly 12 years in various technical sales and marketing roles at four different semiconductor firms located in Silicon Valley beginning with Advanced Micro Devices in 1984, followed by two small start-up companies, and ending at Cirrus Logic where I supported the firm's Japanese market development. I joined Fahnstock & Co. as a senior semiconductor analyst in 1996 and was recruited by Needham & Co. in April 2000.

My formal coverage list as a sell-side analyst included the following equities: AMD, ALSC, ALTR, ARTI, ATML, CUBE, CY, ESST, GNSS, INTC, ISSI, LSI, MOSY, MU, OIIM, OVTI, RMTR, SIII, SMSC, STEC, SVTG, TDFX, TSRA, TXN, and ZRAN.

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