

**Chip Business Bottoms, Recovery Profile to Emerge**

***There is Risk, but I'm Betting the Rally has Legs***

The semiconductor industry reached a cyclical trough in business conditions 1Q and will commence a shallow recovery beginning 2Q. While expectations for an anemic quarter will likely be met or exceeded for last quarter's earnings that will begin to be reported next week, I believe the magnitude of 2Q revenue growth guidance will be critical to share price moves during the forthcoming earnings season. Somewhat ironically, very recent share price weakness will make investor expectations that much easier for semiconductor companies to exceed as they announce 1Q results and 2Q guidance over the next few weeks. While equity investing remains very risky and uncertain, in my opinion it is becoming increasingly risky to NOT participate as the year unfolds.

**Better-Than-Average February:** February industry sales statistics were fairly decent despite the negative headlines last week. Semiconductor industry statistics for February world-wide sales released by the Semiconductor Industry Association (SIA) reflected a three-month rolling average decline of -1.3% which was both better than average and better than the previous month. February has averaged a decline of -2.3% over the last 22 years with a high of +1.9%, a low of -7.7%, and gains only five times during that period. It was also a noticeable improvement over January's -2.7%, as expected due to the 'hole' created by the Chinese New Year vacation that occurred mid-January this year. The Americas lead with a gain of +1.1% while both Asia-Pacific and Japan declined by -1.8% each and Europe lagged with a drop of -1.9%.

Next month's release of March data is likely to reflect a sequential gain as favorable seasonality combines with a potential rebound off a cyclical trough. March is traditionally a strong month with growth averaging +2.6%, a high of +7.0%, a low of -6.9%, and declines only three times in the last 22 years. In addition, it appears the feared rumor of Intel and AMD no longer contributing to this data did not affect the timing of its release this month, and has been countered by rumors that the SIA is determined to keep this reporting intact.

**1Q Trough:** As I noted last month, industry business conditions have likely already bottomed on a weekly and monthly basis, but 1Q will still be a disappointing period in terms of sales. First quarter is seasonally pretty weak having averaged a sequential decline of -1.9% with a high of +8.8%, a low of -19.4%, and declines during 12 of the last 21 years. And this year it appears positioned to significantly under-perform to that average with management revenue guidance for 1Q offered up during 4Q earnings season centered at -4.25% on a weighted-average sales basis across the Tokeneke Universe, ranging from -7% to -1.4%. Current weakness is due to seasonality, cyclicity, and the shortage of disk drives from the Thai flooding last October.

**Shallow Recovery Profile:** The good news is the anticipated 2Q recovery from last quarter's cyclical trough remains intact, although the bad news is that the previously 'uncertain' recovery profile now appears to be on the shallow side based on characterizations offered by company managements at investment conferences in recent weeks. While 2012 is unlikely to reflect much industry sales growth on an annual basis, it is likely to progressively improve as the months unfold for three reasons: the cyclical downturn has bottomed, meaning that lean channel inventories will require replenishment; the disk drive shortage will largely be alleviated by the end of 2Q; and seasonality will turn favorable about the same time.

**Stock Rally Persists:** While March started off with a couple of weak days in the equity markets, it was able to crawl ahead for the remainder of the period resulting in a solid ending to a strong quarter. The Philadelphia Semiconductor Index Option (SOX) rallied by +3.4% during March, underperforming to the NASDAQ by 80 basis points but besting the S&P500 by 30 basis points. 1Q was a winner with SOX gains of +20.4% besting all major indices and over 80% of the issues in the Tokeneke Universe posting gains, as noted in the tables below.

March				1Q				Indices		
Winners (60/102)		Losers		Winners (83/102)		Losers			Mar	1Q
MEMS	38.0%	SPWR	-15.3%	HIMX	106.0%	CEVA	-25.0%	SOX	3.4%	20.4%
HIMX	28.8%	CAVM	-13.4%	INVN	81.7%	SPRD	-21.0%	SMH	3.8%	17.6%
TSEM	23.9%	NPTN	-11.3%	NXPI	73.1%	IDCC	-20.0%	NAS	4.2%	18.7%
GGOX	23.6%	UMC	-9.9%	SWKS	70.5%	TXCC	-18.1%	S&P500	3.1%	12.0%
OVTI	22.0%	SIGM	-9.9%	OVTI	63.4%	RMBS	-14.6%	DOW	2.0%	8.1%
average stock +2.2%				SOX +3.4%		average stock +19.6%		SOX +20.4%		

**April Starts Weak:** The first five trading days of April have already more than reversed March's gains with the SOX down by -4.9% and just over 90% of Tokeneke issues posting declines after getting hit with a trifecta of profit taking, Spanish debt fears, and then weak US employment numbers. Scary sentiment? You bet. Banking crises and macroeconomic weakness fears have been the bane of equity markets since 2008. Nevertheless, we saw similar concerns surface at the beginning of March only to be more than offset as the month progressed. And this month we are going to get a lot of information on fundamental business conditions across the chip sector during the 1Q earnings season that will be largely positive coming on the backside of a cyclical trough.

**I'm Bullish, Nonetheless:** I think the upcoming 1Q earnings season will prove to be favorable to chip sector shares, although the magnitude of that bias is not yet clear and will primarily depend on 2Q guidance.

In general, I expect reported 1Q revenue and earnings to at least meet—if not exceed—expectations. Expectations are pretty low already for weaker than normal guidance to a seasonally soft period. As noted above, 1Q is usually down by -1.9% and original guidance called for a decline of -4.25%. In addition, the number and magnitude of preannouncements to-date have been quite limited, although the weighted consolidation has lowered the average expected sales decline to -4.6%. Specifically, there have been 11 preannouncements as of this writing with six lowering revenue growth expectations, four raising expectations, and one reiterating. All of the six expecting shortfalls were not expecting sequential gains, with two fine-tuning expectations by lowering the high-end of the original range (ALTR and TXN); TSRA introducing a decline after not providing guidance; and three solidly dropping expectations: SNDK (the worst) to -24% from -18-14%, CY to -26-22% from -18-13%, and CAVM to -7-6% from -0%. The four raising expectations included: DIOD raising its low-end, but still straddling flat guidance; HIMX to -2% from -7-3%; LSI to +12+18% from +5+13%; and SMI to +14+15% from +7+9%. EXAR reiterated guidance for a sales decline of -13-6%.

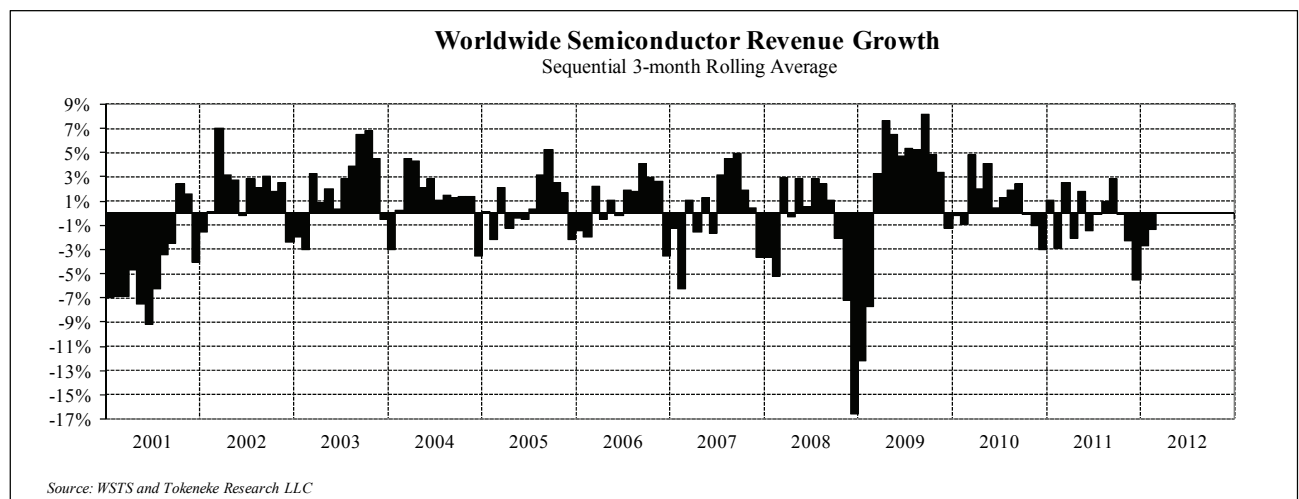
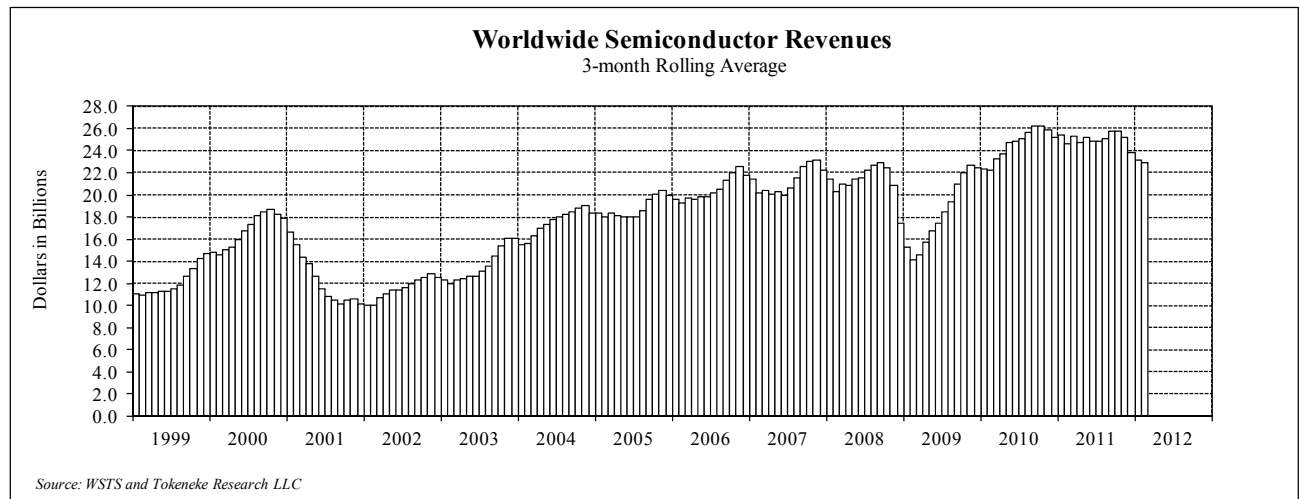
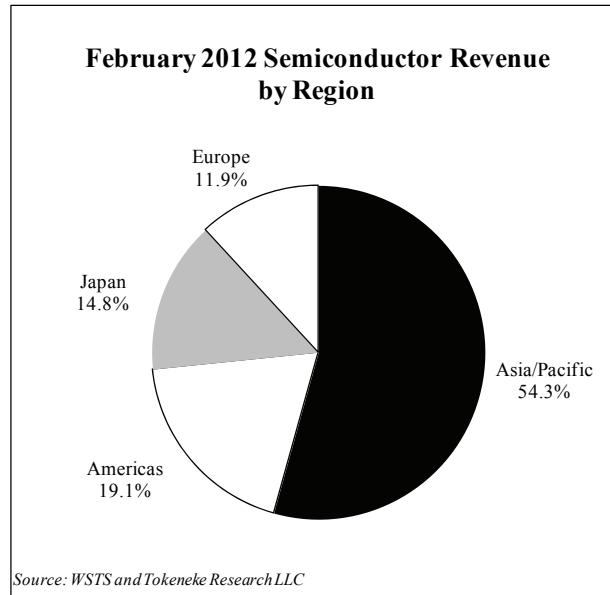
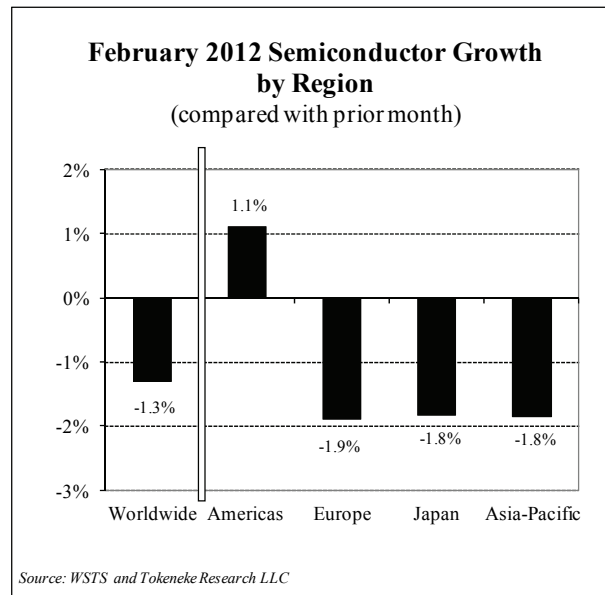
The magnitude of 2Q revenue growth guidance will be critical to share price moves this earnings season, in my opinion. Many company managements have clearly been calling for some kind of revenue recovery 2Q after a sales trough 1Q since January, although the visibility and profile of such has been admittedly uncertain. The good news is that story has persisted and the disk-drive shortage appears to be correcting slightly ahead of expectations, thereby alleviating product shortages to the PC industry. The bad news is that the broader-based recovery is likely to be relatively shallow or incremental in terms of sequential growth based on more recent comments by industry players as customer order visibility has recovered. My guess is that 2Q sales guidance will range somewhere between 'uninspiring' and 'encouraging,' but should largely avoid being categorized as 'disappointing.'

Given such an outlook, I expect chip sector share prices to respond favorably over the next few weeks after earnings season commences next week. If we hadn't had already returned March's gains, then I would have expected a slight positive bias to sector share prices for the season. However, given the weakness over the last few days I now expect the sector to both recover lost ground and eke out some kind of gain. Somewhat ironically, recent share price weakness will make investor expectations that much easier for semiconductor companies to exceed as they announce 1Q results and 2Q guidance over the next four weeks.

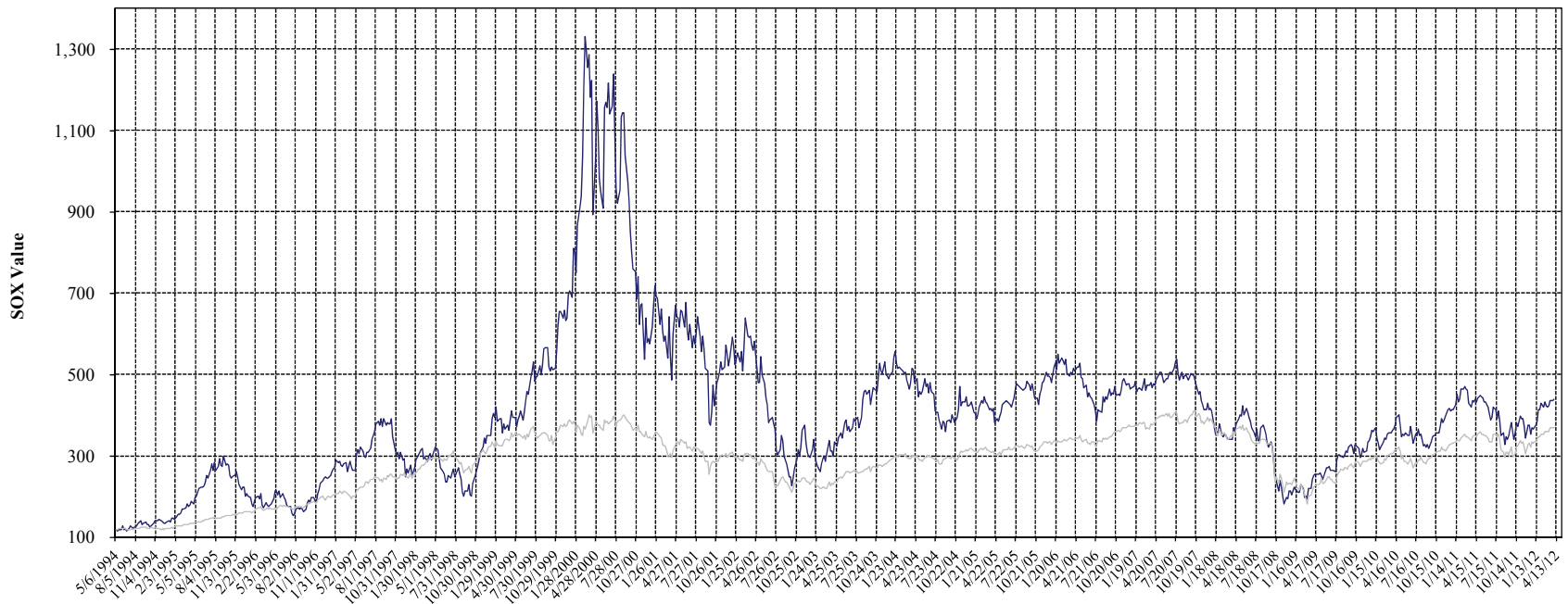
**Increasing Risk in NOT Participating:** Semiconductor industry business conditions have turned positive, with uncertainty focused on the profile and magnitude of the recovery as it progresses throughout the year at this point. And this leaves banking crises and macroeconomic uncertainty as the primary impediments to chip sector equity investing success. But even these risks have stabilized over the last couple of years and are also likely to improve at least incrementally as 2012 unfolds: macroeconomic conditions are lackluster, but at least stable; monetary authorities have done what they can and are running low on available options, but are at least well sensitized to 'do no harm'; and governmental fiscal and regulatory authorities are under increasing pressure to change direction, regime—or both. Another way of looking at the same phenomenon is the relatively increasing attractiveness of equities as an asset class compared to bonds and commodities. Money goes where it's treated best; equities are looking up; and semiconductors are looking good.

The investing environment remains very scary, risky and uncertain—especially for equities over the last few days. But in my opinion it is becoming increasingly risky to NOT participate in equity markets as this year unfolds.

—Dan K. Scovel  
Semiconductor Analyst



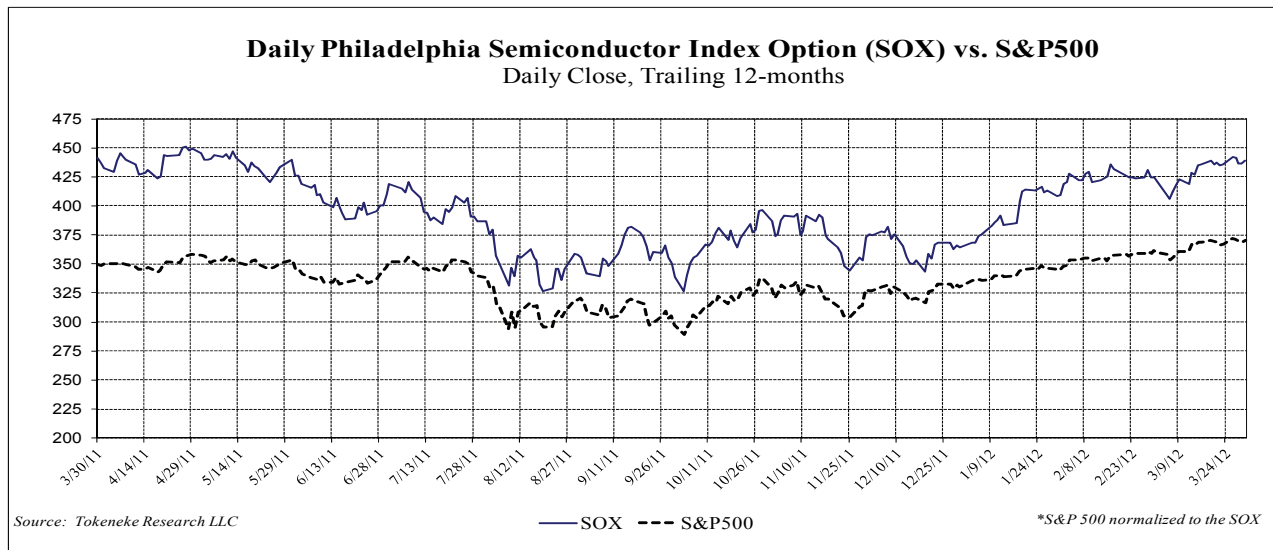
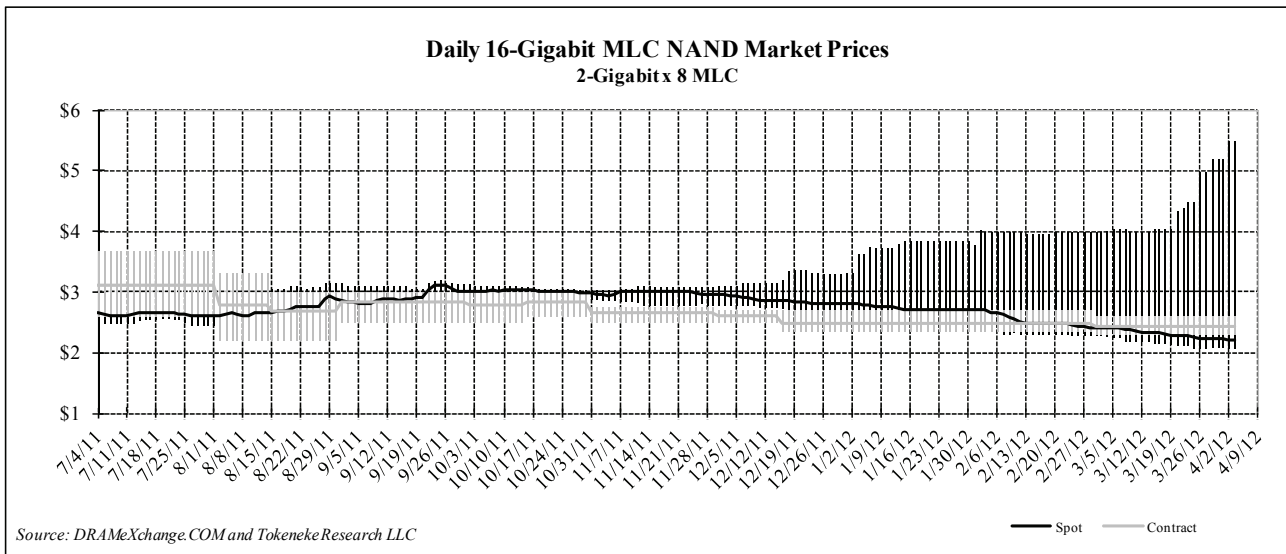
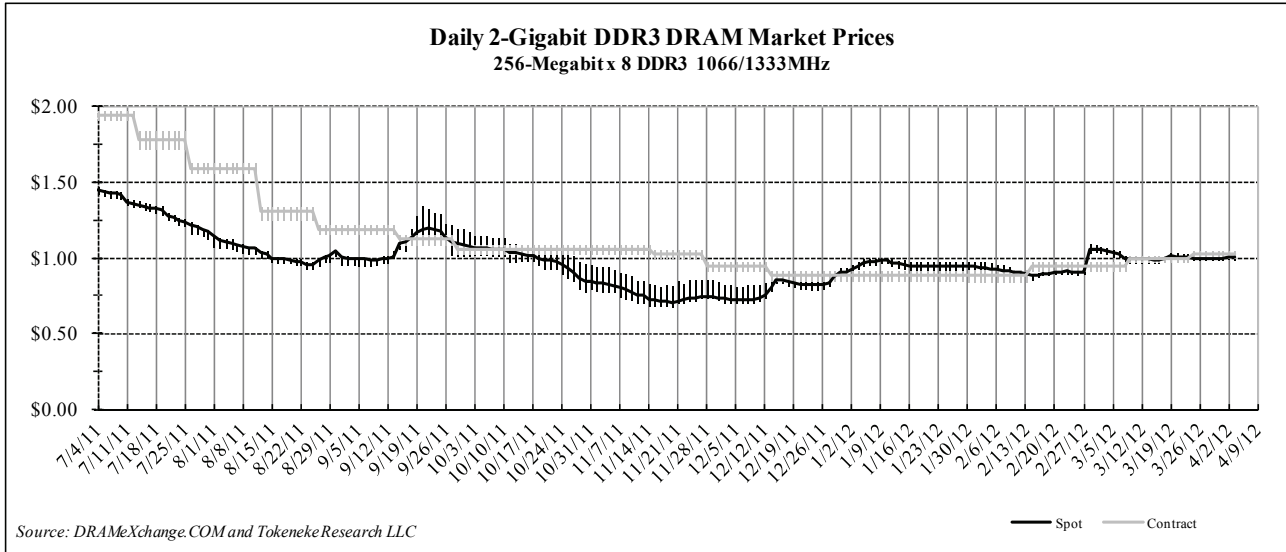
### Weekly Philadelphia Semiconductor Index Option (SOX) vs. S&P 500



Source: Tokeneke Research LLC

— SOX — S&P500

\*S&P 500 normalized to the SOX



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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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