Cavernous Start to a Flat Year

Cyclical Downturn and Disk Drive Shortage to Clobber 1Q

The semiconductor industry faces gale-force headwinds 1Q from adverse seasonality, a cyclical downturn, and a shortage of disk drives. But 2012 will improve as it unfolds, resulting in flat annual sales. In the meantime, I don't trust this highly volatile and correlated stock market with low trading volumes amid monetary and fiscal gyrations in Europe. With any luck, all the bad fundamental news early in the year will result in a bottoming of share prices across the sector, establishing a solid platform for subsequent gains. Until then, there are many potential opportunities across the sector for traders with extremely short time horizons and a high tolerance for risk.

Good Month Goes Bad: November is usually healthy in terms of semiconductor industry revenue growth—but not in 2011. Chip industry statistics for November world-wide sales released yesterday by the SIA (Semiconductor Industry Association) reported a sequential decline of -2.4% on a three-month rolling average basis, reflecting the second worst decline for the period in the last 22 years. In the last 21 years November has grown an average of +1.9% with a high of +6.3%, a low of -7.2%, and has fallen negative only three times. Japan declined the least at -1.7% (breaking a string of gains making up for its disasters in March) followed by The Americas and Europe each with declines of -1.8%. Asia-Pacific lagged with a drop of -2.9%.

Next month's release of December sales are likely to be significantly worse as the seasonally punk period is further aggravated by the industry's cyclical downturn and disk drive shortage. December has averaged a decline of -2.5% with a high of +3.3%, a low of -16.6%, and has been in positive territory only twice in the last 21 years.

Big 4Q Disappointment: The 4Q earnings season begins in two weeks and I expect a lot of disappointing news for investors as the period falls short of already low expectations, and guidance for 1Q reflects the worst of the disk drive shortage from the flooding in Thailand last October.

The fourth quarter is usually a period of seasonal growth for the chip industry, averaging sequential gains of +2.1% over the last 21 years, albeit with a wide range of +16.0% to -24.2% including declines occurring during one-third of the years. But growth is not gonna happen this time. Revenue guidance from the 104 companies in the Tokeneke Universe reflecting approximately 70% of industry sales originally called for a weighted average revenue decline of -2.1% (ranging from -5.0% to +0.7%), but has dropped to -4.3% after nine company preannouncements of expected weakness as of this writing (ranging from -6.5% to -2.0%). INTC was the most notable, swinging to a decline due to disk drive shortages from original guidance for gains, while the other eight simply intensified their expectations for declines (ALTR, CAVM, EXAR, LSCC, SQNS, TSRA, TXN and XLNX). To be fair, DIOD reiterated its expected decline, BRCM tuned-up to the high-end of its declining range, and SPRD reiterated its expected gains. And, much to my surprise, RMBS preannounced expected strength just this morning—albeit numerically lessening an expected drop. I am expecting more negative preannouncements over the next two weeks.

Bad Start to a Flat 2012: The New Year is off to a terrible start as 1Q faces gale-force headwinds from adverse seasonality, the trough (hopefully) of the current cyclical downturn, and the worst of the disk drive shortages from the flooding in Thailand. And any glimmers of hope could easily be quashed by European sovereign debt fallout. And then just to twist the knife a little more, Chinese New Year falls on January 23 which means manufacturing closures for the holiday will ensure that January is weaker than February in terms of semiconductor industry sales.

The good news for 2012 is that it starts so bad that it can only get better as the year progresses. While seasonality won't pick up until mid-year, disk drive availability should be adequate to demand by 2Q and it would be unusual for a cyclical industry downturn to extend that far. I do not subscribe to the notion that missed PC sales for Christmas can be made up on Mother's Day. Nevertheless, I do agree that the chip industry is likely to enjoy incremental gains as supply chains are refilled with inventory following the demand shortfall associated with a cyclical downturn, as well as the resolution of disk drive supply constraints. Net-net, I think 2012 will profile as follows: 1Q will be awful—and likely even worse than already feared; 2Q will be okay, but only because 1Q will be so bad and not because any meaningful recovery will be noticeable; and the second half of the year is well positioned for above average growth as both the season and the cycle turn favorable. And when it's all said and done, total chip sales for 2012 will match those of 2011 reflecting little or no growth. You know—lots of volatility with very little progress—just like investing last year. . .

Opportunity Amid the Carnage: As I noted last month, even the worst of times has its winners—and Apple remains a standout. While PCs dropped by the wayside after Intel's negative preannouncement (as expected) and automotive markets have grown ominously silent over the last few weeks, smartphones and tablets appear to be hanging in there. Specifically, Apple and Samsung smartphones continue to exhibit strength, although other suppliers like RIM and HTC are hurting. Likewise in the tablet space that Apple dominates and Amazon's Kindle and Barnes and Noble's Nook appear to have established footholds as the rest of the field struggles.

Equities Better, Sector Not: While the DOW and S&P500 managed gains during December, the NASDAQ and SOX experienced their second consecutive month of losses. The Philadelphia Semiconductor Index Option (SOX) fell by -2.4% and underperformed both the NASDAQ at -0.8% and the S&P500 at +0.9%. The average company in the Tokeneke Universe dropped about as much as the SOX and a solid two-thirds of my Universe declined during the period. For the year 2011, the decline and spread were even worse. The average stock in my Universe dropped by -18.5%, 80% of them went down, and the SOX fell by -11.5% as the NASDAQ slid by only -1.8% and the S&P500 closed the year almost exactly flat. The good news? Last year is done, and this year can only be better.

December			
Winners *(32/104)*		Losers	
MOSY	34.2%	SQNS	-33.5%
MPWR	25.2%	TRID	-30.8%
PXLW	24.1%	SPWR	-20.3%
TXCC	19.0%	VIMC	-18.6%
GGOX	17.6%	AOSL	-16.6%
average stock -2.6%		*SOX -2.4%*	

4Q			
Winners *(66/104)*		Losers	
NLST	109.2%	TRID	-65.4%
SIMO	77.2%	RMBS	-46.1%
MPWR	48.0%	SQNS	-44.6%
TSRA	40.3%	NPTN	-33.4%
IPHI	36.4%	CODE	-32.2%
average stock +5.2%		*SOX +7.6%*	

2011			
Winners *(22/104)*		Losers	
SIMO	381.9%	TRID	-89.9%
NETL	57.8%	SQNS	-72.2%
CEVA	47.6%	MIPS	-70.6%
TXCC	46.8%	ANAD	-68.4%
AATI	44.1%	RMBS	-63.1%
average stock -18.5%		*SOX -11.5%*	

Indices	*Dec*	*4Q*	*2011*
SOX	-2.4%	7.6%	-11.5%
SMH	-0.8%	7.0%	-6.5%
NAS	-0.6%	7.9%	-1.8%
S&P500	0.9%	11.2%	0.0%
DOW	1.4%	12.0%	5.5%

Closer to a Bottom: Trading volumes are extremely low, correlation among stocks is extremely high, and all eyes of the investment community are watching and reacting to the daily comings and goings of European sovereign debt. No one seems to be paying attention to industry fundamentals, and this is just working to support to chip sector share prices when they should be finding a bottom. I simply don't trust this stock market—and I won't, until sector share prices find that bottom.

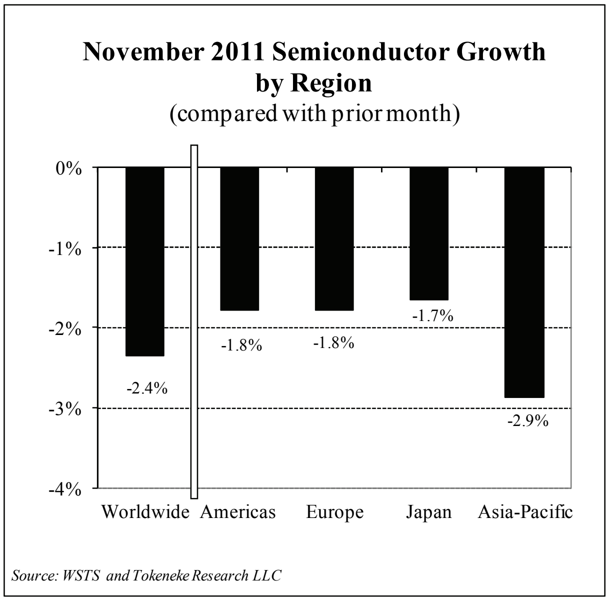
The lack of a decline the day after ALTR and TXN preannounced expected weakness earlier last month gave me some hope that was subsequently dashed after INTC's negative preannouncement hit most of the sector. Frankly, not-bad news out of BRCM, DIOD and SPRD didn't help temper investor expectations, and RMBS's upside this morning only makes it worse. At some point investors will give up the ghost, share prices will bottom at levels with solid support, and then it will be safe (heck, advantageous at that point) for investors to wade back into the group. Given all the bad news I expect to be disclosed over the next few weeks, that bottom could well be established shortly. Cross your fingers.

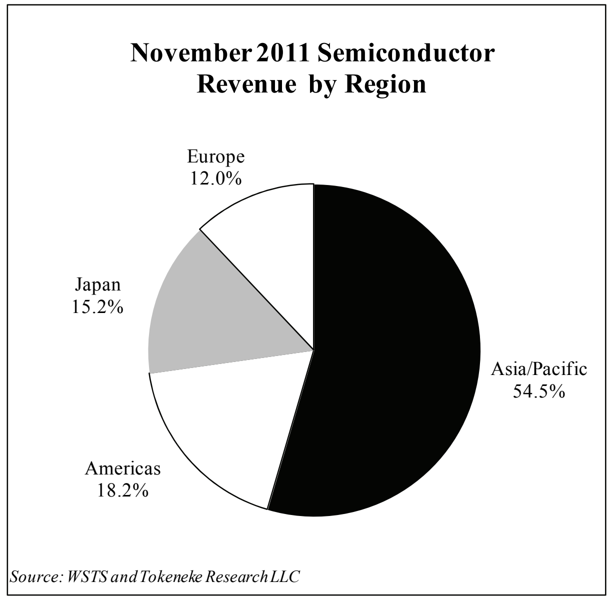
Semiconductor Dividends: Investing in an equity market you don't trust is problematic. Nevertheless, there are some dividend plays in the semiconductor sector worth considering that I detailed in a note penned yesterday. See that piece on my website and take a look at INTC, MXIM, LLTC, MCHP, STM and ISIL for opportunities offering dividend yields in excess of 3%.

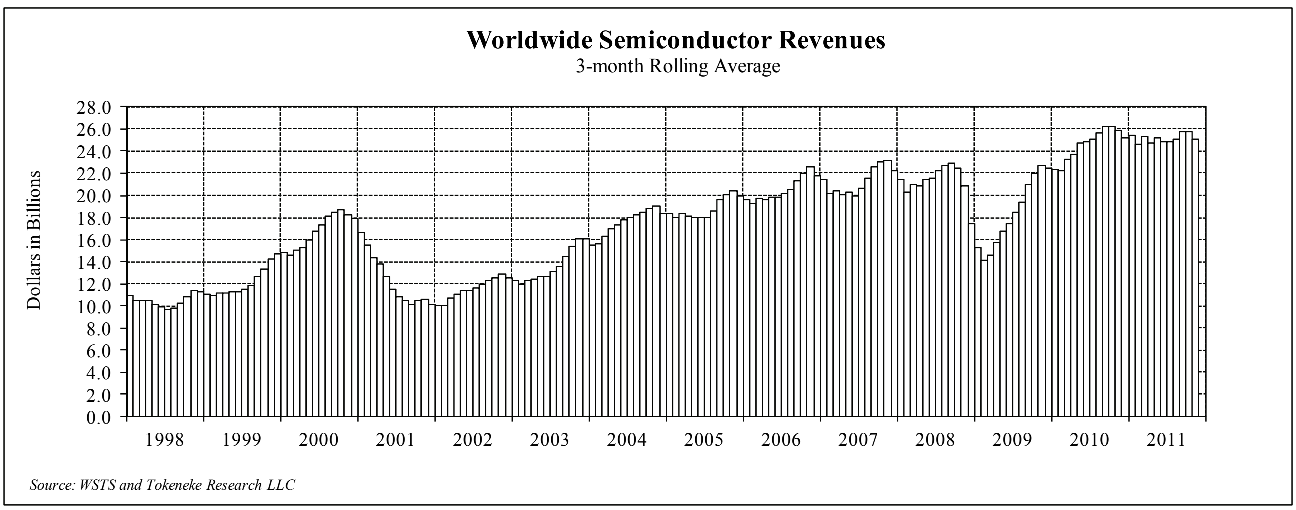
Life of a Trader: Even amid the lack of trust, fundamental valuations are largely attractive across my entire Universe and there are many opportunities for short-term traders, albeit mostly in the smaller and mid-market capitalization spaces. I consider these potential opportunities more so trading rather than investing in nature due to the volatility of equity markets, the depressed magnitude of fundamental valuation levels compared to historical averages across the sector, and the weak business conditions throughout the industry. The best way to play them at this point, in my opinion, is to rent these stocks instead of owning them, and taking profits after modest double-digit gains that are likely to follow a spot of good news from the European banking morass. Please reference the most recent weekly list of stock ideas on my website.

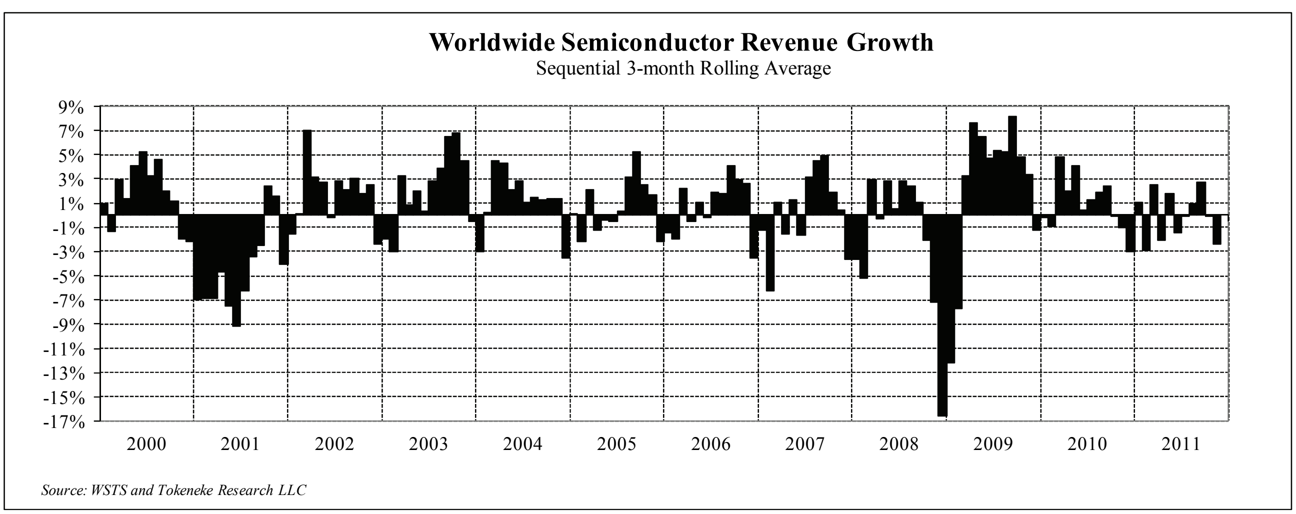
With any luck, all the horrendous news of a fundamental nature early this year will result in a bottoming of share prices across the semiconductor sector, establishing a solid platform for subsequent gains. Until then, a fair number of significantly attractive fundamental valuations amid share price volatility offer numerous potential opportunities for traders with high risk tolerance and unusually short attention spans. Hang in there: 2012 will get better.

—Dan K. Scovel
Semiconductor Analyst

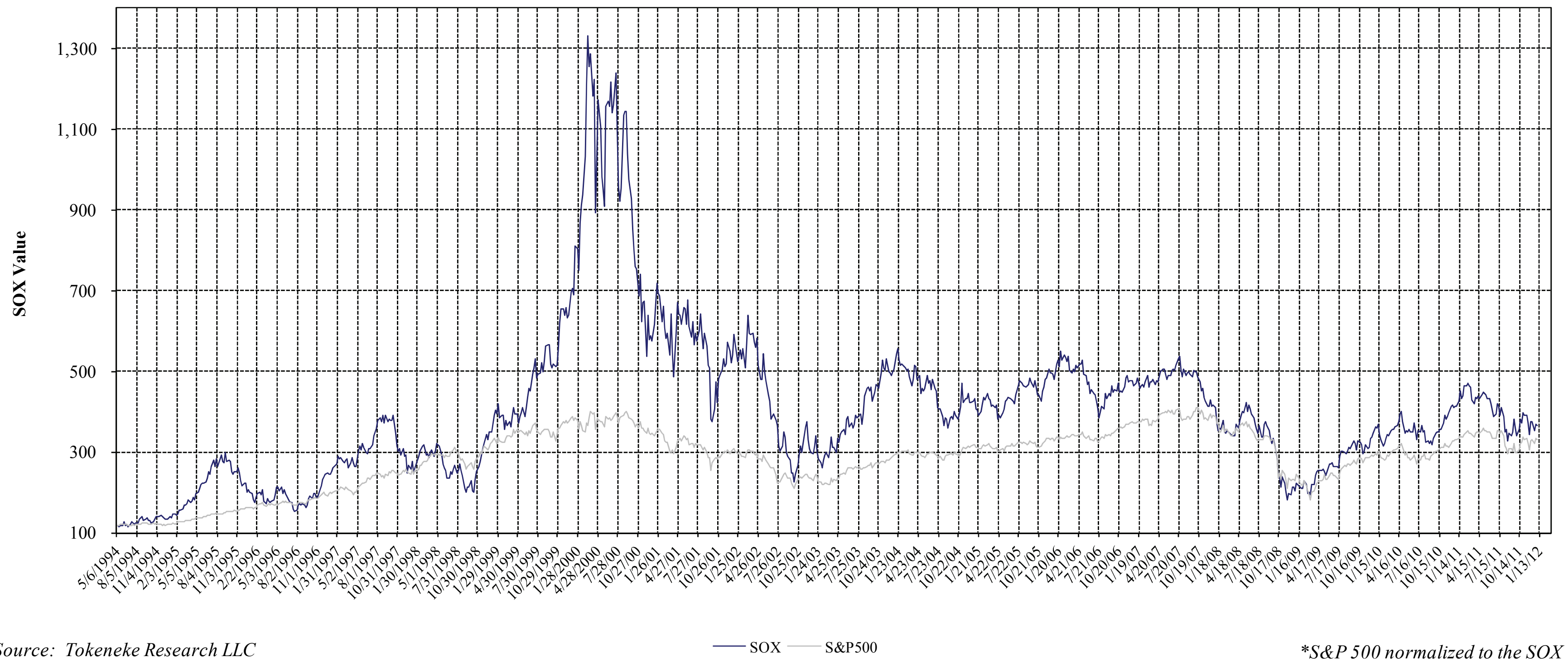

November 2011 Semiconductor Growth by Region
(compared with prior month)
0%
-1%
-2%
-3%
-4%
-2.4%
-1.8%
-1.8%
-1.7%
-2.9%
Worldwide
Americas
Europe
Japan
Asia-Pacific
Source: WSTS and Tokeneke Research LLC


November 2011 Semiconductor Revenue by Region
Europe 12.0%
Japan 15.2%
Asia/Pacific 54.5%
Americas 18.2%
Source: WSTS and Tokeneke Research LLC


Worldwide Semiconductor Revenues
3-month Rolling Average
Dollars in Billions
28.0
26.0
24.0
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Source: WSTS and Tokeneke Research LLC

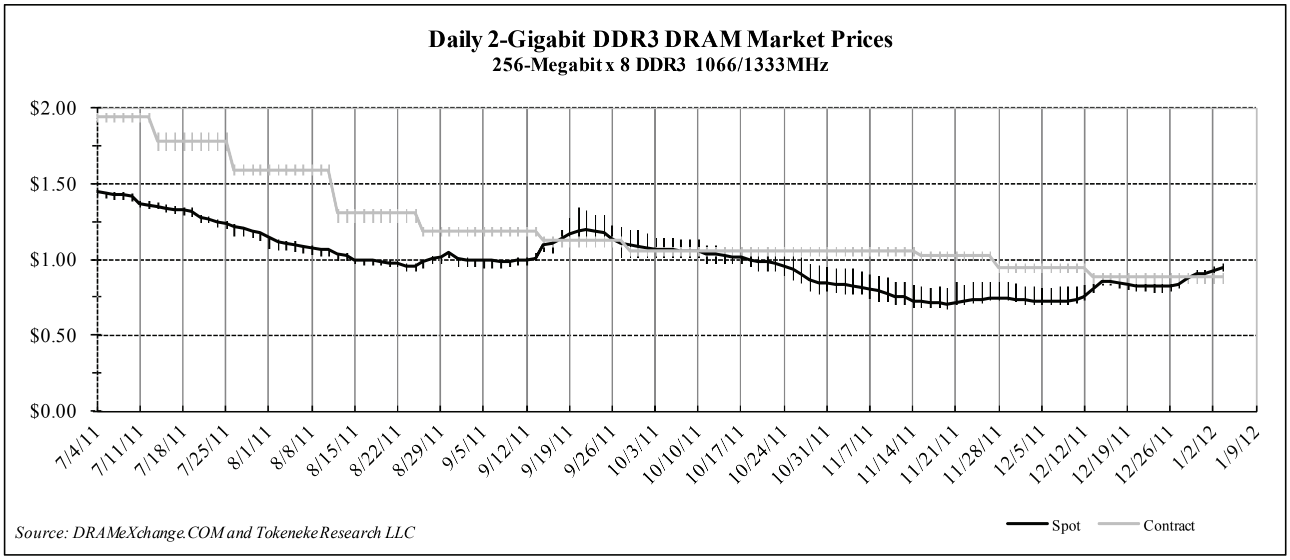

Worldwide Semiconductor Revenue Growth
Sequential 3-month Rolling Average
9%
7%
5%
3%
1%
-1%
-3%
-5%
-7%
-9%
-11%
-13%
-15%
-17%
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Source: WSTS and Tokeneke Research LLC

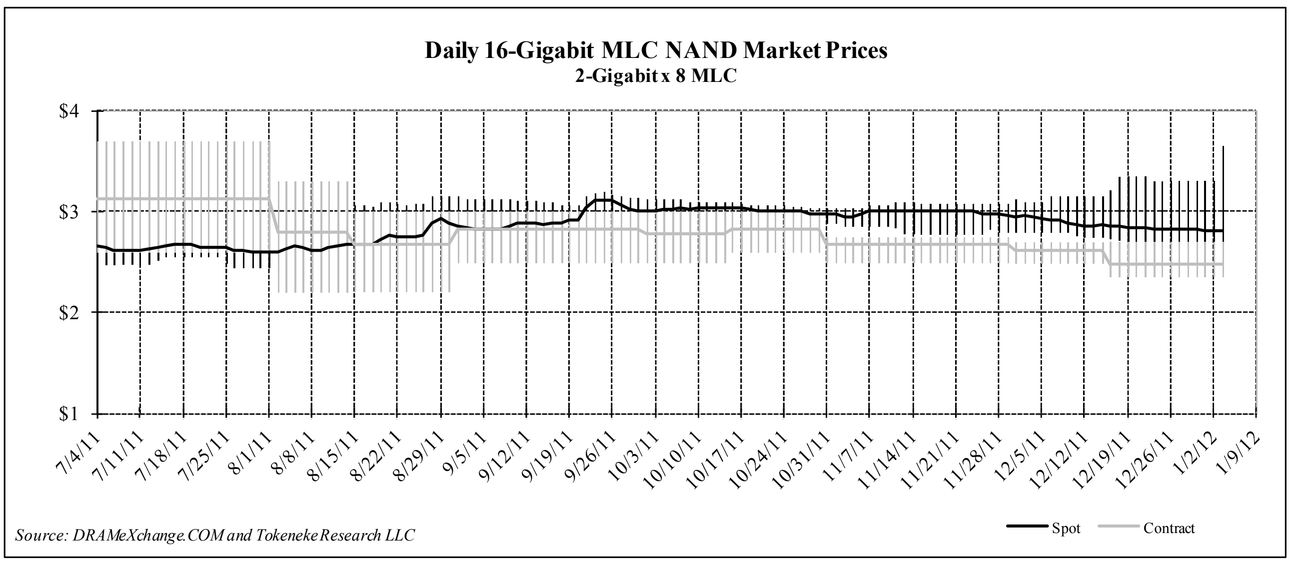
Weekly Philadelphia Semiconductor Index Option (SOX) vs. S&P 500

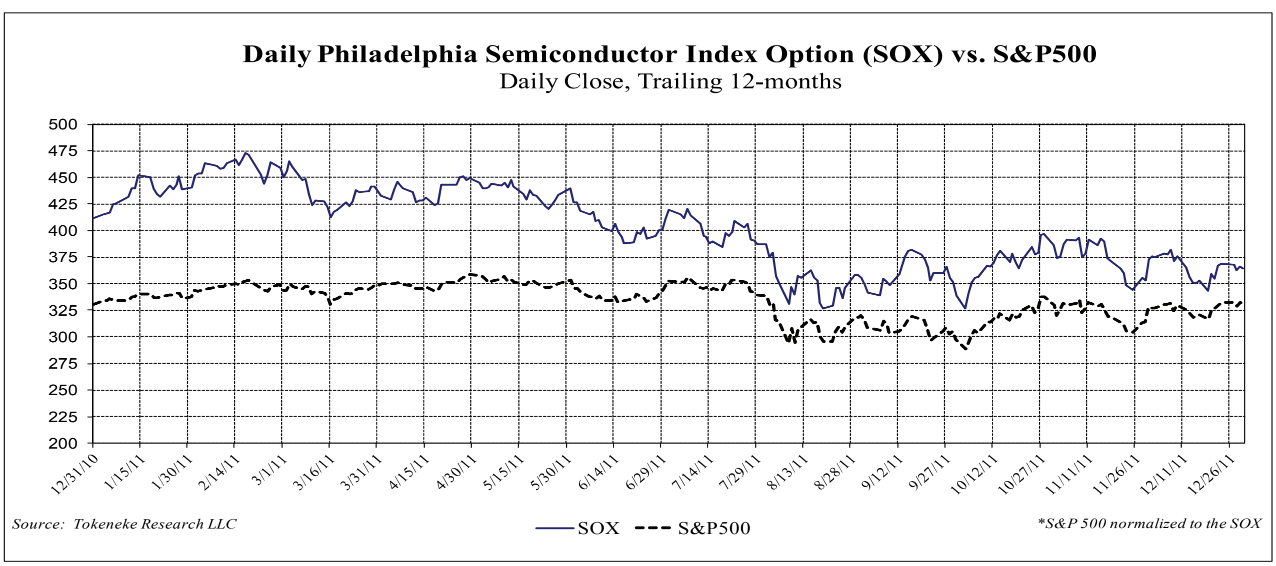


Source: Tokeneke Research LLC

*S&P 500 normalized to the SOX


Daily 2-Gigabit DDR3 DRAM Market Prices
256-Megabit x 8 DDR3 1066/1333MHz
$2.00
$1.50
$1.00
$0.50
$0.00
7/4/11
7/11/11
7/18/11
7/25/11
8/1/11
8/8/11
8/15/11
8/22/11
8/29/11
9/5/11
9/12/11
9/19/11
9/26/11
10/3/11
10/10/11
10/17/11
10/24/11
10/31/11
11/7/11
11/14/11
11/21/11
11/28/11
12/5/11
12/12/11
12/19/11
12/26/11
1/2/12
1/9/12
Source: DRAMeXchange.COM and Tokeneke Research LLC
Spot
Contract


Daily 16-Gigabit MLC NAND Market Prices
2-Gigabit x 8 MLC
$4
$3
$2
$1
7/4/11
7/11/11
7/18/11
7/25/11
8/1/11
8/8/11
8/15/11
8/22/11
8/29/11
9/5/11
9/12/11
9/19/11
9/26/11
10/3/11
10/10/11
10/17/11
10/24/11
10/31/11
11/7/11
11/14/11
11/21/11
11/28/11
12/5/11
12/12/11
12/19/11
12/26/11
1/2/12
1/9/12
Source: DRAMeXchange.COM and Tokeneke Research LLC
Spot
Contract


Daily Philadelphia Semiconductor Index Option (SOX) vs. S&P500
Daily Close, Trailing 12-months
500
475
450
425
400
375
350
325
300
275
250
225
200
12/31/10
1/15/11
1/30/11
2/14/11
3/1/11
3/16/11
3/31/11
4/15/11
4/30/11
5/15/11
5/30/11
6/14/11
6/29/11
7/14/11
7/29/11
8/13/11
8/28/11
9/12/11
9/27/11
10/12/11
10/27/11
11/11/11
11/26/11
12/11/11
12/26/11
Source: Tokeneke Research LLC
SOX
S&P500
*S&P 500 normalized to the SOX

The Company

Tokeneke Research is an independent research firm specializing in semiconductor industry business issues, providing fundamental research focused on US equities across all market capitalizations within the sector to investors. The company was founded in 2005 and is based in Connecticut.

The Offering

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- *Industry Reports:* Publications offering insight and perspective to industry-wide, multi-year forecast updates; periodic sub-sector product type and end-market reviews; fundamental and valuation perspectives on sector equity relationships; and industry introductory overview. These are more detailed reports with varying shelf-lives, and are intended for narrow distribution to interested clients.
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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 Fahnestock & 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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