

Chip Business in Retreat, Sector Equities Underperform *Risk Remains to the Downside*

Uninspiring business conditions across the semiconductor industry are softening as share prices mostly rally—but by smaller amounts that are now underperforming on a relative basis. As a fundamental analyst, this makes me very uncomfortable. While I consider the risk-reward trade-off to be largely unfavorable from a macro perspective at this point, I also believe a few specific stock picks remain attractive—but only so much as discomfort will allow.

Sub-Par October: Worldwide semiconductor industry revenue growth for October was slight. Statistics released by the Semiconductor Industry Association (SIA) last week reflected a three-month rolling average gain of +0.8% compared to average growth of +2.5% with a high of +6.8%, a low of -2.0%, and only three declines over the last 23 years—although all of those occurred within the last five years. The Americas kept the lead with growth of +3.3% followed by Europe at +1.7%. Asia-Pacific was nearly flat at +0.1% and Japan trailed with a decline of -1.4%.

Next month's release of November data is usually even softer: it has averaged a gain of +1.7% with a high of +6.3%, a low of -7.2%, and has declined only four times in the last 23 years—but including three of the last five.

3Q Revised Down: Industry statistics are regularly revised, and this month's release changed some previous month data that resulted in 3Q sequential revenue growth dropping to +7.9% from +8.4%. While this is closer to my Tokeneke Universe growth of +6.1% (with only two smaller companies left to report), the difference still represents a bit of a spread. Two questions: Why the difference? And does it matter? My guess is the recent spike in DRAM market prices and the lack of DRAM suppliers Samsung and Hynix in my Universe—but this is only a guess.

First some background. Most of the way though the 2Q earnings season my Universe was similarly lagging to reported industry statistics and I also blamed DRAMs at the time—only to have my Universe close the gap as the final companies reported. Oops. Then last month I offered up a list of reasons why my Universe would structurally deviate from industry statistics—and now those stats have magically closed some of the gap via restatements. While my Universe differs from industry statistical sources, its numbers have usually been in a very similar range.

So why does this matter? Because I don't think the semiconductor industry grew as robustly as the +8% stat suggests. And my +6% being somewhat better than expected—but still around average—more accurately reflects current business conditions, in my opinion. Recall that semiconductor industry stats have averaged a 3Q gain of +6.3% with a high of +19.9%, a low of -11.7%, and declined only twice in the last 23 years. Also, Tokeneke Universe guidance from 2Q earnings called for a below-average gain of +4.4% with a range of +1.2% to +7.5%, and preannouncements slightly lowered the mid-point to +4.1% and narrowed the range to +1.4% to +6.8%. Preannouncements totaled 13 and skewed negative with 5 lowering guidance (ACTS, CEVA, CY, IDCC, and RDA), 7 reiterating or narrowing the range (BRCM, DIOD, MCHP, MSSC, SIMO, TSM and TXN), and only one slightly raising expectations (UMC).

Over the last few months: the worldwide economy has been fragile; PC markets have deteriorated off of no-growth expectations; consumer markets were cannibalized by smartphones (think digital cameras); and higher-growth expectations for both China (in general) and smartphones and tablets (in particular) tempered. My expectations for 3Q sequential growth were largely 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. However, the one area accounting for noticeable, disproportionate strength has been DRAMs as market prices rallied due to supplier consolidation and a production shortfall due to a fire in a large manufacturing facility at supplier Hynix.

I'm sticking with DRAMs accounting for the difference between industry and Tokeneke Universe statistics, regardless of my recent track record. Note the DRAM price chart on Page 5 of this report.

More 4Q Downside: The 4Q outlook based on management guidance is now calling for a sequential decline across the semiconductor industry of -1.7% which is well below historical average growth of +1.5%. 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 years. The specific range of weighted sales from my Universe

with the 3Q earnings season very nearly complete calls for a decline centered at -1.7% ranging from -4.5% to +1.1%, down from numbers after the fourth week centered on -1.4% ranging from -4.3% to +1.4%. And we have even had a short handful of preannouncements already narrowing the range, keeping the center at -1.7% but trimming the low and high to -4.4% and +1.0%, respectively.

Chip Sector Underperforms Again: Semiconductor sector stocks rallied slightly last month, but underperformed compared to broader equity markets once again. The Philadelphia Semiconductor Index Option (SOX) eked out a gain of +0.6% during November, although the average stock in the Tokeneke Universe grew by a better +1.7% with a solid 57 out of 99 advancing. This performance fell short of broader equity market gains from the NASDAQ, S&P500 and DOW of +3.6%, +2.8%, and +3.5%, respectively. Year-to-date the chip sector finally lost its previous outperformance to the NASDAQ, although maintains it over the other two indices: the SOX is now up by +32.9% with the average stock in my Universe up by a similar +31.4% with 77 out of 99 posting gains, compared to those same three indices with gains of +34.5%, +26.6% and +22.8%, respectively.

November				QTD (4Q)				YTD				Indices											
Winners (57/99)		Losers		Winners (55/99)		Losers		Winners (77/99)		Losers		Nov	QTD	YTD									
MSPD	74.0%	TXCC	-94.1%	MSPD	65.5%	TXCC	-95.4%	SPWR	439.9%	TXCC	-98.0%	SOX	0.6%	4.0%	32.9%								
GIG	35.2%	NPTN	-16.5%	GIG	50.0%	SQNS	-21.2%	HIMX	316.7%	TSEM	-47.2%	SMH	0.0%	3.3%	27.4%								
MONT	28.6%	DIOD	-15.6%	VIMC	48.2%	NPTN	-19.9%	MU	232.8%	PSMI	-39.7%	NASDAQ	3.6%	7.6%	34.5%								
AMBA	20.7%	IPHI	-15.2%	IXYS	27.6%	INFN	-17.8%	AMBA	122.4%	MLNX	-34.4%	S&P500	2.8%	7.4%	26.6%								
SIMO	20.5%	NLST	-13.9%	MONT	27.5%	DIOD	-16.6%	MRVL	96.0%	CRUS	-30.3%	DOW	3.5%	6.3%	22.8%								
average stock +1.7%				SOX +0.6%				average stock +2.8%				SOX +4.0%				average stock +31.4%				SOX +32.9%			

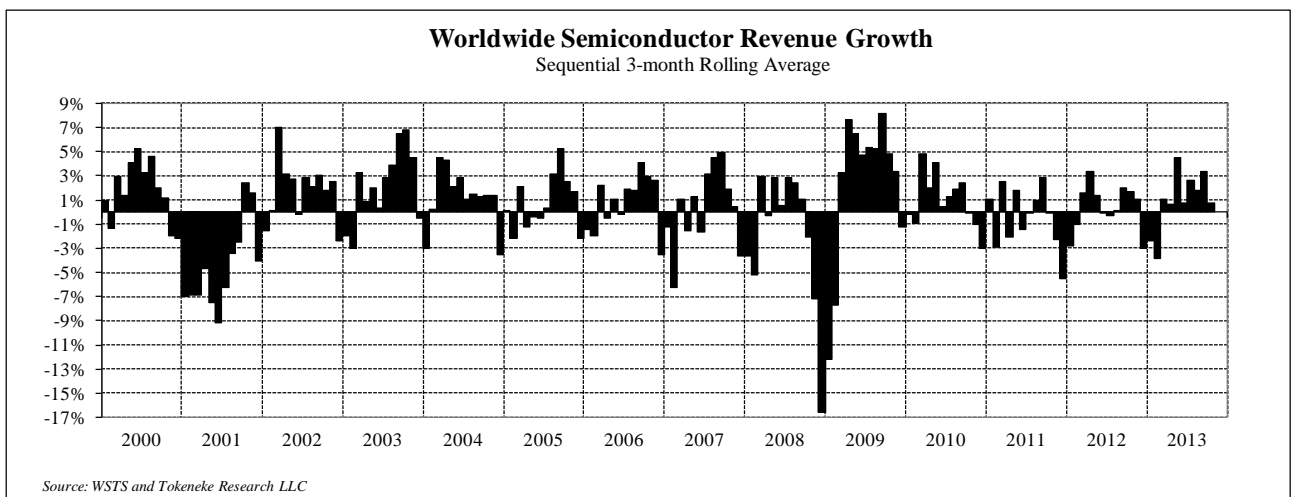
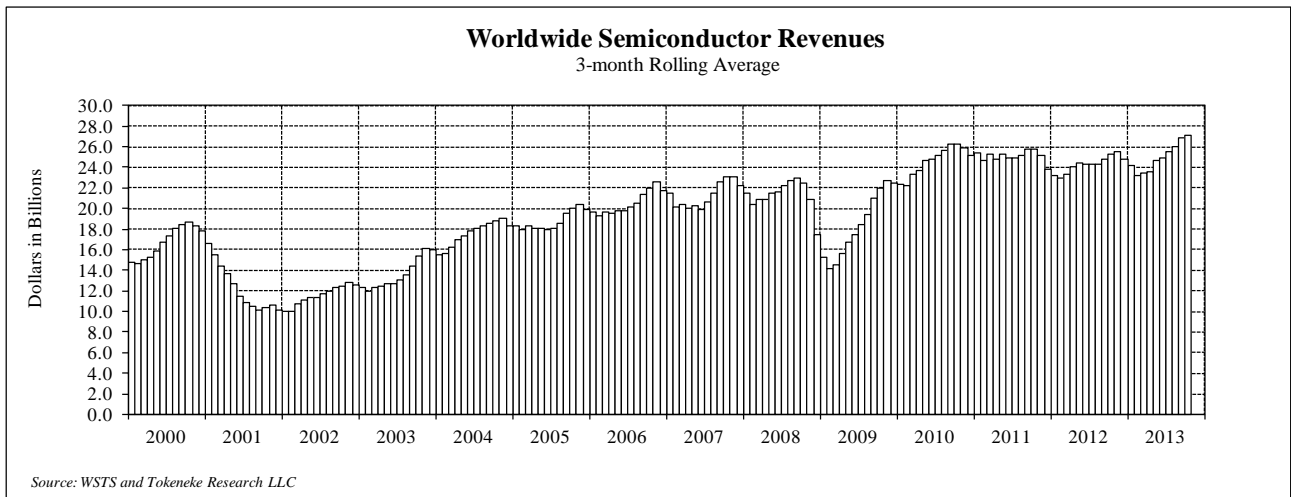
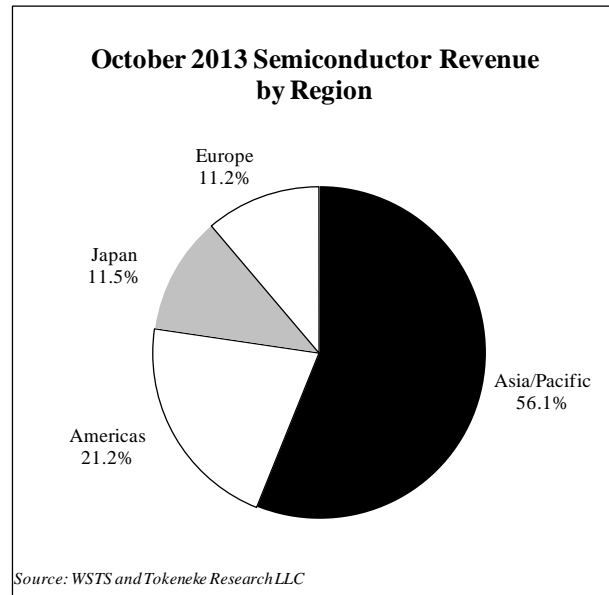
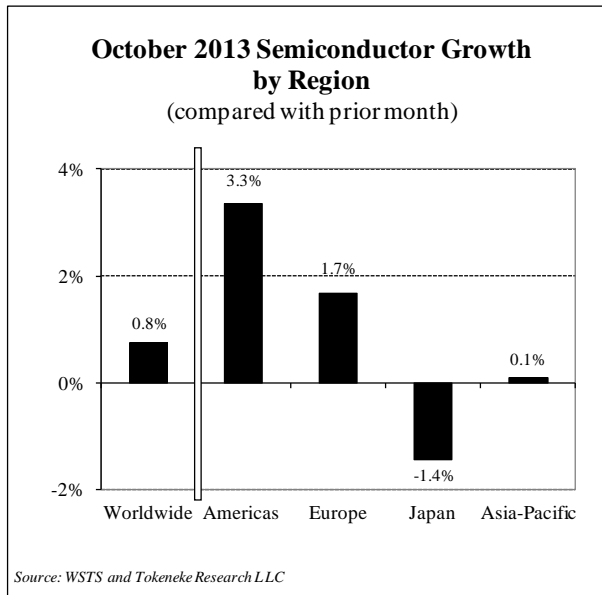
Roller Coaster Year: Both business conditions and share prices have experienced a roller-coaster ride so far this year. Chip industry business conditions began the year on a low note with a promise of accelerating gains into the second half. Then 3Q guidance for growth at the beginning of the period disappointed more optimistic expectations. Now 3Q results appear to have significantly exceeded that disappointment—but 4Q guidance calling for decline is even more of a disappointment.

Semiconductor sector shares, on the other hand, rallied nicely during most of the first half of this year and have largely maintained their advantage on a relative basis despite monthly oscillations of gains and losses that began mid-year, as well as outperformance and underperformance compared to broader equity markets that began in March. The easy money was made during 1Q, but it has been a fairly rocky ride since then—not unlike the oscillations between investor expectations and reported results.

Take the Money and Run: This equity market environment continues to scare me. Yes, I understand equities are favored across a smorgasbord of unattractive alternatives. But uninspiring business conditions are now clearly softening as share prices mostly rally—but with smaller and smaller gains that are now underperforming on a relative basis. As a fundamental analyst, this makes me very uncomfortable.

The risk-reward trade-off is unfavorable at this juncture, in my opinion, and I think the chip sector is at risk of correction at a macro level. Nevertheless, I continue to recommend a few specific stocks with better than average growth prospects and highly attractive fundamental valuations that—combined—should mitigate potential downside risk. But, once again, such opportunities should only be addressed as much as discomfort will allow for an individual investor's appetite. I have been much more comfortable addressing specific stock picks for most of this year than I have been with respect to the sector overall, and that situation remains unchanged. See my latest Chip Investment Ideas publication for specifics.

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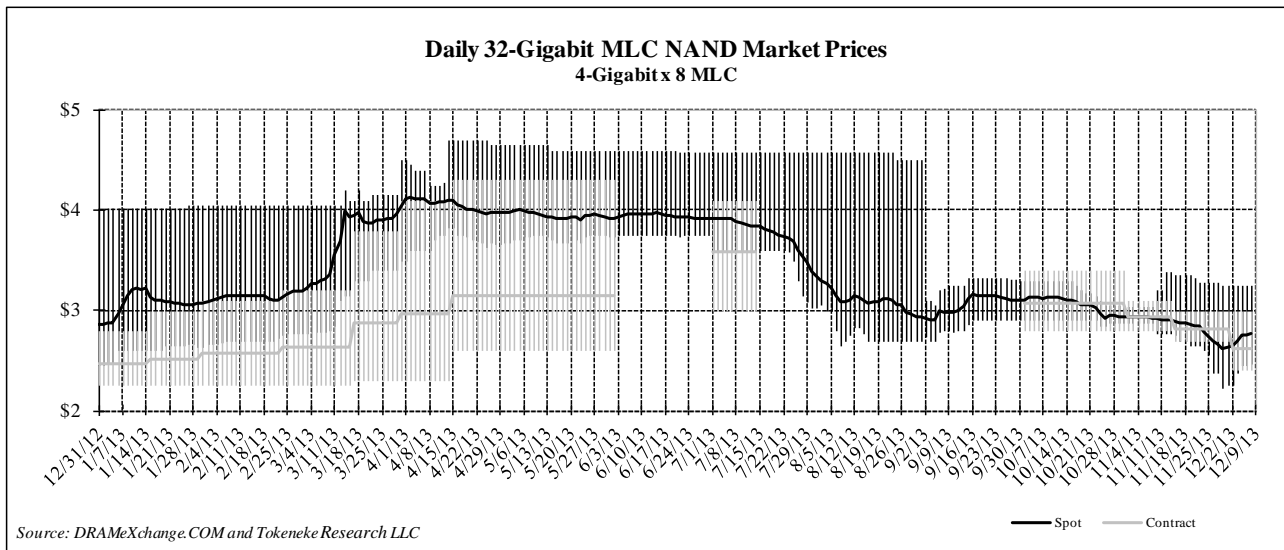
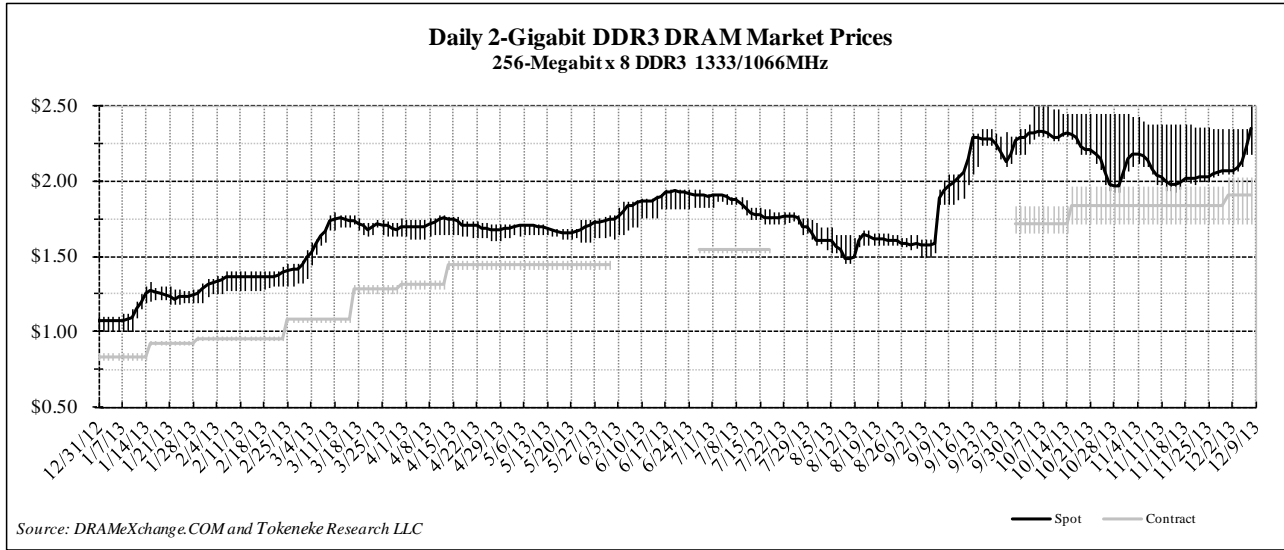
Weekly Philadelphia Semiconductor Index Option (SOX) vs. S&P 500



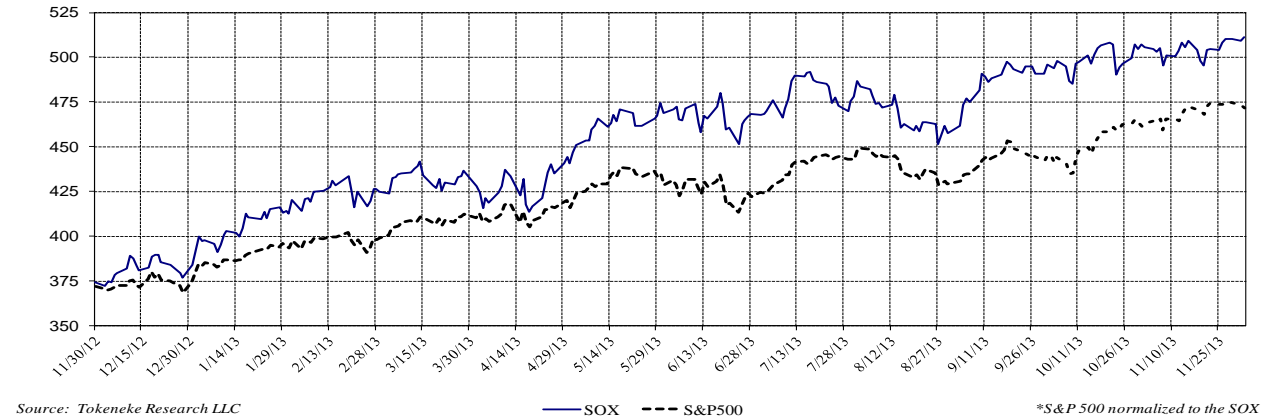
Source: Tokeneke Research LLC

— SOX — S&P500

*S&P 500 normalized to the SOX



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



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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