

The Recession is Over, But a Recovery Remains Elusive

Chip Sector May Well Correct—After Quite a Nice Run

Summary: I think recent business gains across the semiconductor sector are primarily channel inventory replenishment exercises that are unlikely to persist due to an elusive recovery in end-market demand. Because of this, I think the recent sector share price rally is at risk of correcting over the next several weeks.

1Q Exceeds: The 1Q09 earnings season was a huge positive relative to expectations, with 55% of the companies in the Tokeneke Universe meeting or exceeding their respective published revenue, earnings and outlook. The leverage in the earnings upside was a testament to the operational execution across the sector, although in my opinion the revenue upside was really more sandbagging frustration of prior guidance by management severely burned in the prior two quarters (only 10% and 7% of firms exceeding expectations 4Q and 3Q, respectively). The Tokeneke Universe accounts for approximately 60% of chip industry sales, and this group of firms reported a weighted average sales decline last quarter of -17.4% compared to the SIA/WSTS industry statistics report of -15.7% and revised management guidance centered on -18.7% (around a range of -21% to -16%).

The upside to depressed expectations for 1Q was not unexpected, although I remain impressed with both the strength of 2Q revenue guidance as well as its conservative nature: quantitative revenue growth guidance was better than I had expected, and bookings and turns support behind that guidance would indicate significant likelihood of potential upside. Original guidance for 2Q called for growth of 8.4% (around a range of 5.5% to 11%) and the 12 positive pre-announcements to-date have shifted this up to 10.3% (around 8% to 13%). If I strip monster Intel out of the numbers, the weighted gain is actually boosted by another 300 basis points. The twelve firms that have pre-announced expected upside to their original 2Q guidance include: Chartered, Diodes, Lattice, Microchip, Mindspeed, O2Micro, Qualcomm, Silicon Labs, Standard Microsystems, STEC, Trident and Texas Instruments. Only one company, Actel, has pre-announced expected weakness.

An over-10% sequential gain for the seasonally weakest quarter of the year that usually contracts is pretty impressive. But then, nothing has been anything close to normal so far during this downturn. I believe the 1Q triumph of depressed expectations was a very significant factor in the sector share price rally since early-March.

Thanks for the Memory Prices: DRAM market prices have been steadily recovering this year, albeit off of very depressed lows. While spot market prices have oscillated with an upward trend, contract prices have steadily inched up and now reside solidly above the \$1.00 mark for 1-gigabit densities in a 128-mega x 8 configuration at 800MHz with a standard DDR2 interface, as noted in the price chart on Page 5 of this report. NAND market prices have improved considerably from extremely depressed lows last December: up to over \$4.00 from under \$2.00 for 16-gigabit MLC devices, as also noted in a price chart on Page 5. NAND has exhibited a similar profile of oscillating spot prices amid steadily improving contract prices, although both appear to have stalled out in recent weeks after breaching \$4.00. These market pricing trends are significant relative to my Buy recommendation on MU.

Statistical Rebound: Semiconductor industry statistics for April were released earlier this month and world-wide sales advanced by 6.4% sequentially on a three-month rolling average basis. This number is pretty strong compared to the historical April average of +1.1% since 1990 with a previous high of +6.2%, a low of -4.7%, and only seven contracting years out of the last 19. It is also the second month of gains after five months of free fall that began last October. Asia-Pacific was extremely strong gaining 11.9%, followed by Japan with growth of 2.4% and the Americas eking out a gain of 0.5%. Europe lagged with a sequential decline of -0.9%. Strength in Asia and skittishness across the Americas and Europe are consistent with management 1Q earnings reports.

Historical statistics have not offered much perspective after 40% of chip industry sales vaporized over the last two quarters. I expect May's numbers that will be released in early-July to also reflect significant gains consistent with expected growth for 2Q. And, for what it's worth, May has traditionally been pretty flat with an average gain of +0.9%, a high of +4.1%, and a low of -7.5% with only five negative growth periods in the last 19 years.

Sector Rally: The Philadelphia Semiconductor Index option (SOX) peaked on June 1 at 286, or 51% above its March 2 low of 189 (and a cool 67% gain above its ten-year low of 171 on November 20). Half-way through June it is now down by 7.7%. Frankly, I am amazed it has eked any gains since the end of the 1Q earnings season in early-

May. During May the SOX continued its recent rally by 4.9%, although it was virtually unchanged if measured at the close of the second trading day of the month rather than the last day of April.

The tables below indicate winners and losers so far this year through the end of May. While a number of equities are registering significant triple-digit gains and double-digit losses, one needs to beware of the curse of small numbers: of the 113 stocks in the Tokeneke Universe, 11 are trading for under \$1.00, 20 are under \$2.00, and 49 are trading under \$5.00 per share as of the close today. Penny stocks can make for big percentage movers.

May			QTD (2Q)			YTD			Indices			
Winners (7/21/3)		Losers	Winners (103/113)		Losers	Winners (92/113)		Losers	May	QTD	YTD	
PXLW	146.5%	PXPL -43.2%	PXPL	400.0%	QUIK -23.6%	MTLK	400.0%	SIMG -43.6%	SOX	4.9%	17.5%	27.9%
MTLK	127.3%	NLST -28.6%	ENR	217.6%	MOSY -12.1%	ENR	370.0%	RMTR -43.5%	SMH	3.1%	12.8%	19.8%
STEC	70.7%	EZCH -17.0%	PXLW	182.3%	LDIS -10.0%	STEC	284.7%	LOGC -27.5%	NAS	3.3%	16.1%	12.5%
TSRA	67.2%	RMTR -16.8%	MTLK	163.2%	ZILG -9.8%	RFMD	265.4%	ZILG -26.9%	S&P500	5.3%	15.2%	1.8%
AMCC	43.5%	LOGC -16.7%	STEC	122.7%	VTSS -9.4%	MIPS	250.5%	MOSY -23.8%	DOW	4.1%	11.7%	-3.1%
average stock +9.3% SOX +4.9%			average stock +37.2% SOX +17.5%			average stock +51.0% SOX +27.9%						

Tricky Valuation: Depressed earnings have rendered price-earnings ratios problematic, and balance sheets are under unusual scrutiny for net cash—for once, in this growth-oriented sector where income statements have always ruled. At first glance there should be numerous buying opportunities with prices at historically low levels. In fact, over 80% of the Tokeneke Universe is currently trading below long-term average price-sales ratios on a trailing 12-month basis. Unfortunately, sales are expected to be lower this fiscal year in over 90% of my 113 companies, which renders the trailing 12-month ratio overstated. Valuing equities in a growth sector that happens to be shrinking by 20% is an exercise in multiple compression. In other words, it's a stock-pickers market for short-term traders.

My recent upgrade to Buy of TXN is a case in point: I am giving the company full credit for an extensive restructuring that I expect will boost expected earnings to a significant degree. However, I am not modeling any meaningful revenue growth amid the current macroeconomic climate. On the other hand I recently downgraded NSM because its financial model requires a certain degree of revenue growth to leverage earnings—an area of severe discomfort to me, as noted. Management can control expenditures, but revenue is largely governed by the business environment, in my opinion.

Forecast Less Negative: Business strength as reflected in 2Q guidance, positive preannouncements, and memory chip market prices has already triggered upward revisions to chip industry market forecasts for this year—to smaller, double-digit negative numbers. See adjacent table. I am raising my estimate to a decline of -25% to -20% from -30% to -25%, although I continue to remain extremely skeptical that current business strength will persist. I assume flat-ish revenue trends during the second half of the year at 2Q sales levels.

Chip Industry Revenue Growth Forecasts

Source	2009	Prior Fcst
Tokeneke	-20-25%	-25-30%
SIA/WSTS	-21.3%	-5.6%
Databeans	-17%	
Gartner	-22.4%	-24.1%
IC Insights	-17%	same
Semico	-12-13%	
VLSI	-13%	-17%

Risky Outlook: Long-term, I continue to believe the chip sector will fare better than most when a recovery finally occurs due to rapid retrenching and the notable lack of excess inventory at the onset of this downturn. Near-term, I consider the 3Q outlook to be highly uncertain at this point, and this is where macroeconomic issues come home to roost. If current sector business strength is primarily inventory replenishment, then 3Q will be flat to down sequentially. On the other hand, if the economy has truly stabilized and we are now returning to regularly scheduled seasonality, then we should expect seasonal strength of at least a couple hundred basis points sequentially. Unfortunately, I believe this more favorable scenario has already been baked-in to current share prices—and I consider the less favorable scenario more likely.

I think the sector is due for a correction, and could easily give back half of its gains since early-March. Yes, the recession has subsided and near-term business levels have improved, but virtually all gains have been inventory-related and end-market demand appears to have stabilized with limited visibility and uncertain prospects for foreseeable growth. In other words; the recession is over, but the recovery remains elusive.

—Dan K. Scovel
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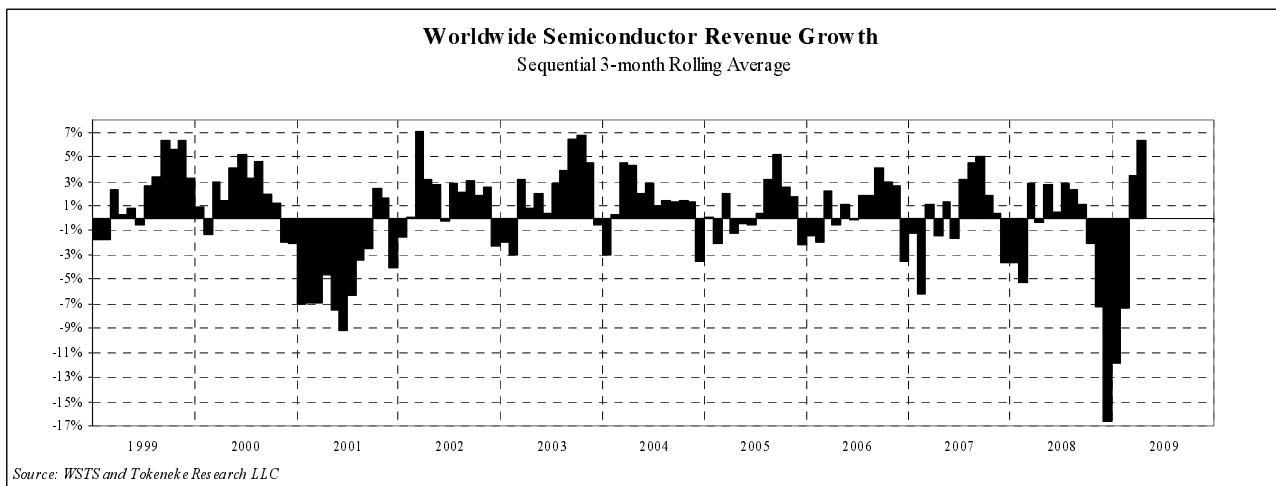
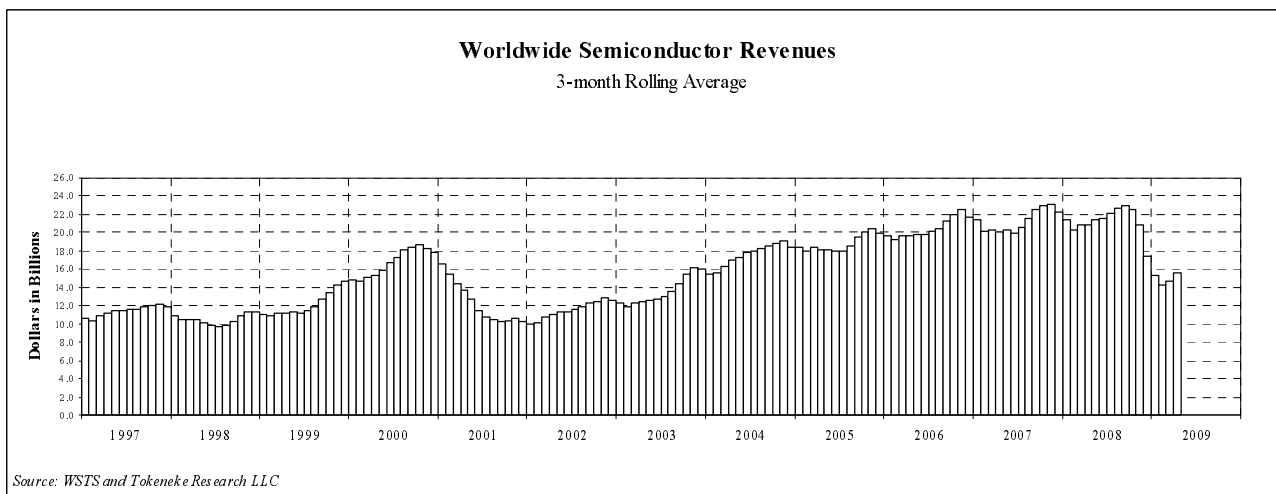
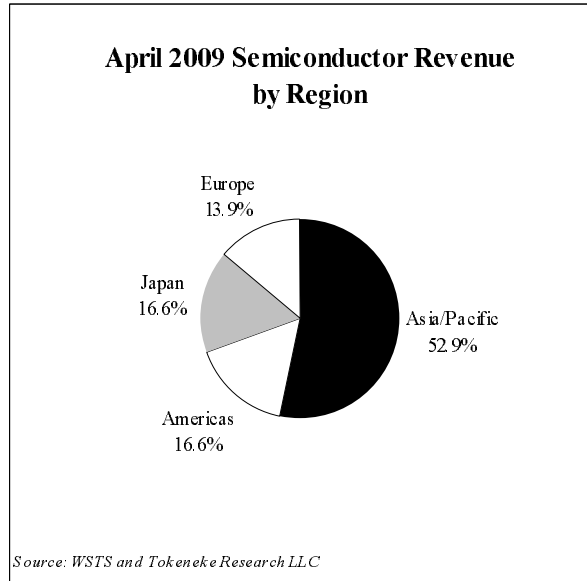
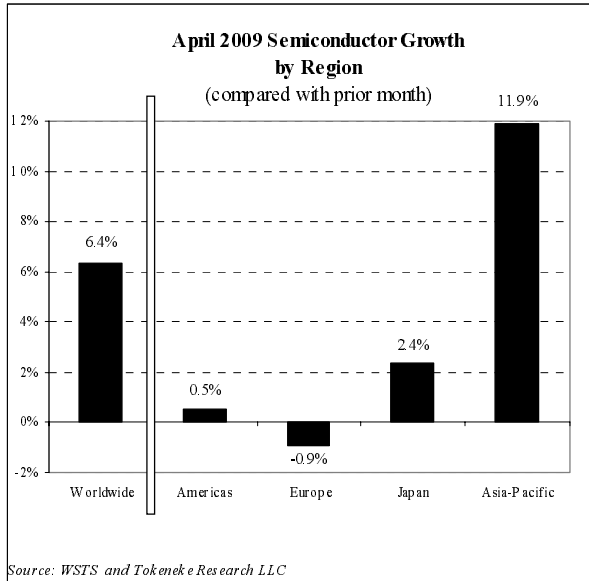
Stock Recommendations: Please see the most recently published reports for additional information.

MU: Buy recommendation with a 12-month target price of \$10—for the unusually risk-tolerant investor.

TXN: Buy recommendation with a 12-month target price of \$25. Technical support around \$14.

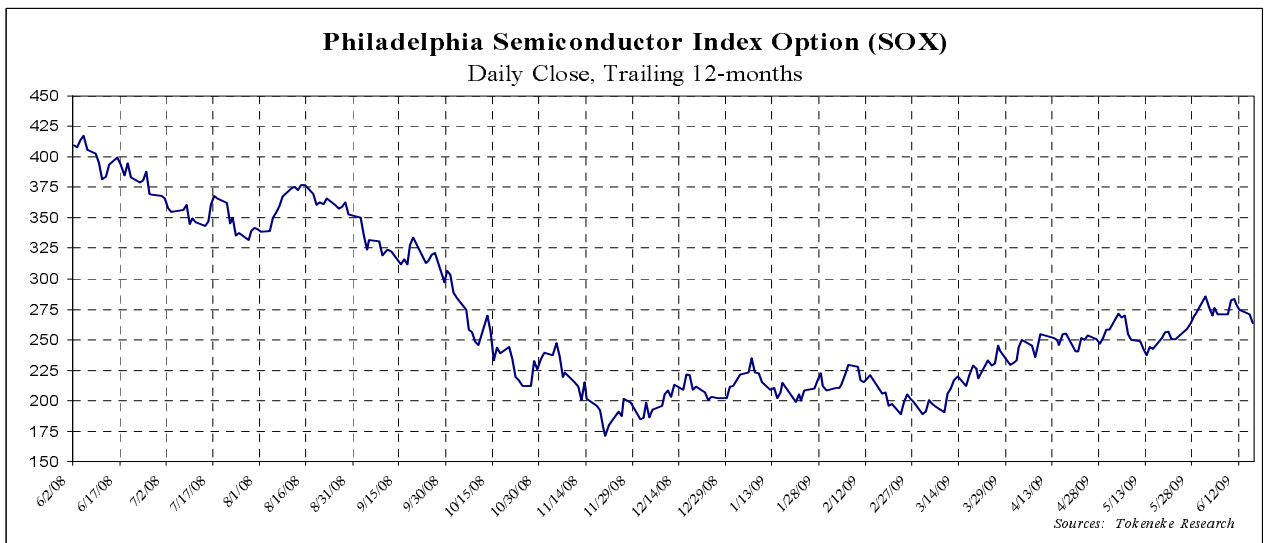
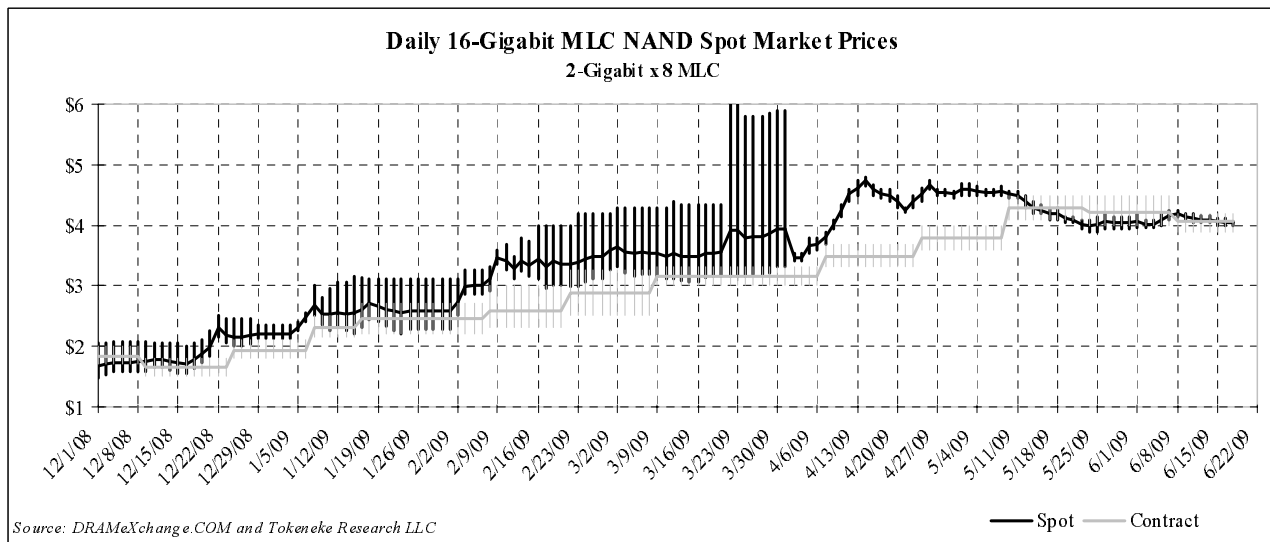
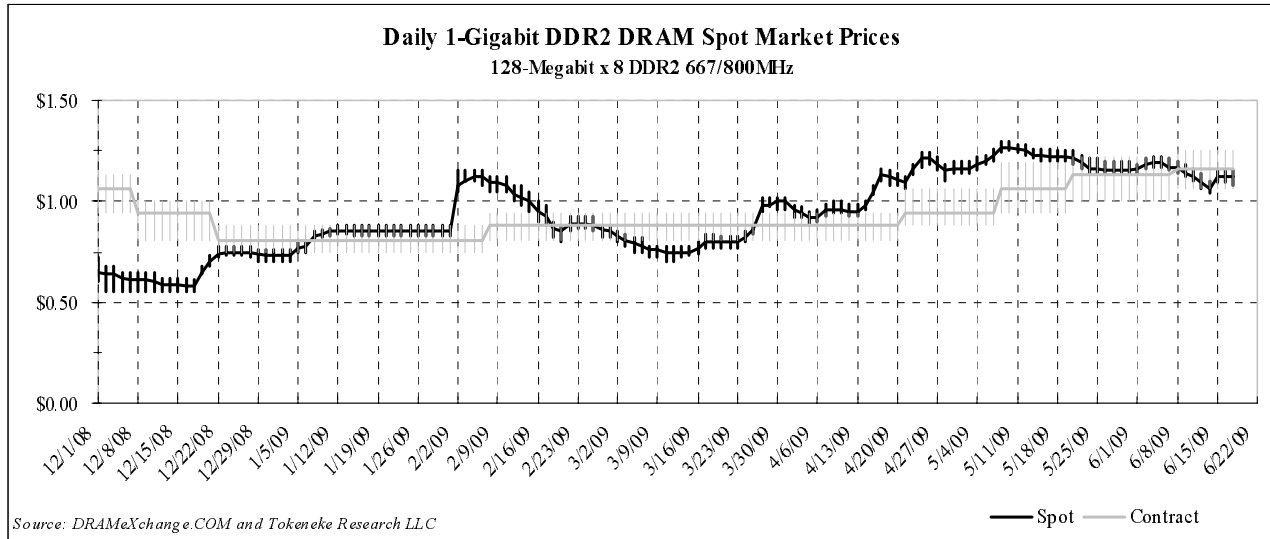
INTC: Hold. I'm not interested until it approaches its recent technical support level just over \$12.

NSM: Hold (Sell?). Fully-valued at \$15. Trade it between technical support around \$9.50 and \$15.



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





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.

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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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