Crawling Along the Bottom

Improving News and Fundamentals to Trigger Bear-Market Rallies

Chip industry business conditions remain weak at depressed levels and with limited visibility—but at least appear to have finally bottomed. I believe the industry is poised to lead us out of the current economic morass when a recovery ultimately materializes, and the sector is already beginning to outperform similarly challenged equity markets. In the mean time, I think nimble traders can enjoy a series of bear market rallies as we continue to crawl along the bottom of the current downturn.

4Q08 Re-Cap: Industry-wide sales fell by -24.2% sequentially last quarter, compared to a 4Q average of +2.2% with a minimum of -3.0% and a maximum of +16.0%. And it was the worst quarter ever since 1990, besting the 1H01 with two sequential periods of -19.4% and -19.2% and stripping a cool one-third of the industry's total revenue base away in a mere 180 days. In fact, the extreme weakening at year-end surprisingly threw the whole of 2008 into negative territory of –2.8%.

The 4Q08 earnings season is largely complete, and the reported quarter was decidedly mixed on a company-by-company basis as either revenue or earnings were secured—but not both. And I admit this is a gratuitous interpretation given a preponderance of negative preannouncements (multiple, in some cases) leading up to these releases. In addition, the outlook for 1Q09 was also disappointing, although in at least of couple of cases that outlook at least fell within the range of the most pessimistic published estimate. However, the good news is that investors finally seemed to appreciate the finer points of bad guidance by rewarding positive share price moves as long as guidance was at least above that worst published estimate. See my 4Q08 Earnings Summary for details.

1Q09 Decline: 4Q08 was the worst on record and the current quarter will be almost as bad—quantitatively, anyway. Management guidance for 1Q09 anticipates another -20% period. (Actually a range of -23% to -17% on a weighted average basis for companies that accounted for approximately 60% of total industry sales last quarter.) Assuming this occurs as expected (a big assumption, given the current lack of business visibility and the extremely poor forecast accuracy last quarter where original expectations going into the period anticipated a decline of -13% to -7% against an ultimate decline of -21.5% for the group and -24.2% based on industry statistics), approximately 40% of industry revenues will vaporize in 180 days—even worse than 1991.

2009 Sucks: Semiconductor industry revenues for 2009 are likely to contract by -25-30%, down from current published expectations for declines of -2%-24%. 2009 has to be this bad, primarily due to the quantitative realities associated with 1Q dropping by 20%. I calculate an annual decline of -30% with the following sequential quarterly growth profile: -20%, -5%, +10%, +10%. And I can approach a decline closer to -20% with -15%, 0%, +20%, +20%. As you can see, this profile already assumes a fairly robust 2H09—at least on a growth rate basis. And this leads to two issues: First, the year could easily be worse than -30% if the bathtub profile of this downturn is extended; and second, any number much better than -25% seems pretty unlikely, in my opinion. 2009 is well positioned to rival the 2001 record drop of -32%.

I agree two back-to-back quarters of +10% growth during the second half of the year would seem to indicate a pretty pronounced recovery—especially more pronounced than I believe macroeconomics can support. Nevertheless, I also don't think it would be out of the question. First, run-rate business levels would be at very depressed levels after 40% of industry sales evaporated during 4Q08 and 1Q09. Second, fairly lean channel inventories going into this downturn would necessitate at least some amount of refilling. And third, manufacturing capabilities could easily—and would be highly motivated—to enhance highly depressed utilization rates by that time. While it might be too much for actual consumption to digest, it would not significantly exceed seasonal norms of holiday bullishness.

The only silver lining to this dismal 2009 outlook will be a numerically robust 2010 that can easily deliver growth of +20+30%—even if sequential quarterly growth rates revert to single-digit percentage averages. The low-end of that range reflects a more favorable 2009 number around -25%, while the high-end of the 2010 range reflects a less favorable 2009 around -30%.

While the severity of the current downturn is quantitatively comparable to that of 1991, the qualitative aspects are completely different: 1991 was largely self-inflicted by the semiconductor industry, while this one trickled down from a financial meltdown and macroeconomic downturn; inventory and manufacturing capacity was flush in 1991, but lean and measured now; and demand conditions remained relatively healthy in 1991, while the lack of end-user demand is the source of current weakness.

I continue to think the semiconductor sector will ultimately fare better than most industries when a recovery finally does occur for two reasons. First is the managerial experience during 1991 of a pronounced downturn of similar magnitude. And second is the relatively lean and mean health of the sector at the onset of this downturn noticeable for the lack of inventory excesses—channel or otherwise. Of course, this is an overly general comment on the industry as a whole and does not include balance sheet casualties that bankruptcy will claim akin to Qimonda and Spansion.

Dismal January Establishes Bottom: Semiconductor industry sales during January crashed by -11.9% compared to the prior month on a three-month rolling average basis, as released by the Semiconductor Industry Association in early-March. Never mind this was the worst January on record—one of the seasonally weakest months in the year with an average decline of -2.2%, a minimum of -7.3%, and a maximum of +0.9% as one of only two non-negative years since 1991—this was the second worst sequential monthly decline of *any* month over the last 18 years. The worst was the prior months -16.6%, and both the December and January declines were meaningfully worse than the previous record drop of -9.2% in June 1991. All geographies took a hit, with Asia-Pacific and Europe underperforming the average, but Japan and The America's outperforming.

The good news is that I believe January marks a revenue bottom for the industry. First, January is typically pretty weak anyway, as noted above. Second, the Chinese/Lunar New Year adversely impacts business levels, and that holiday fell squarely in January this year. And third, anecdotal evidence suggested at least a few company managements noticing a bottoming in weekly sales and/or bookings during the first half of the month.

February Rebound: Indications of better February business levels have already materialized: industry supply-chain players in Taiwan have reported improvements in DigiTimes due to handsets and notebook PCs; Standard Microsystems preannouncing the high-end of its original revenue guidance range for its February-ending quarter on February 9; Altera bumping up its revenue guidance to -20-15% from -25-15% on March 2 due to Chinese 3G networking markets; Xilinx also increasing its revenue guidance to -18-13% from -25-15% on March 3 also due to wireless communications markets; and MediaTek raising its 1Q revenue guidance to +8+13% from -16-8% on March 4 due to cell phone handset sales in emerging markets (read, China).

February is also benefiting from Chinese New Year. Chinese New Year fell in January this year, and statistics noted in the adjacent table from recent years indicate that January will be weaker than February, and February will be stronger than January. While a business bottom may well have been achieved during January (at least on a weekly basis), it was then interrupted by the New Year break. The last time in recent memory that Chinese New Year fell unambiguously in January was 2004, and January declined that year but February eked out a gain.

I expect the seasonally weak month of February to reflect increasing sequential sales when reported by the SIA around April 1. While this is primarily driven by the weekly bottoming profile and Chinese New Year affects noted above, it would reflect especially well against the month's historical average decline of -2.0%, a minimum of -6.9%, and a maximum of +1.9% as one of five non-negative years in the last 19.

	Chinese	3-mo rolling avg		Annual Rev	
Year	New Year	JAN	FEB	% APAC	Correlate?
1991	15-Feb	-3.19%	-0.62%	15.0%	no
1992	4-Feb	-0.56%	-1.28%	17.7%	yes
1993	23-Jan	-2.42%	0.60%	18.3%	yes
1994	10-Feb	-0.03%	0.35%	18.8%	no
1995	31-Jan	-0.17%	1.91%	20.5%	not really
1996	19-Feb	-2.91%	-3.75%	20.9%	yes
1997	7-Feb	-2.96%	-2.17%	22.0%	not really
1998	28-Jan	-7.30%	-3.93%	24.9%	sort of
1999	16-Feb	-1.81%	-1.79%	24.9%	not really
2000	5-Feb	0.91%	-1.31%	21.7%	yes
2001	24-Jan	-7.02%	-6.90%	28.7%	sort of
2002	12-Feb	-1.58%	0.10%	36.4%	no
2003	1-Feb	-1.97%	-2.98%	37.8%	yes
2004	22-Jan	-2.98%	0.23%	41.7%	yes
2005	9-Feb	0.07%	-2.13%	45.4%	yes
2006	29-Jan	-1.49%	-2.22%	47.0%	yes
2007	18-Feb	-1.22%	-6.23%	48.3%	yes
2008	7-Feb	-3.64%	-5.24%	49.9%	yes
2009	26-Jan	-11.93%			
Average (ex '09):		-2.24%	-2.07%		

Harbor Amid the Storm: The semiconductor sector is getting hurt along with the current weakness in equity markets, but not nearly as bad. The Philadelphia Semiconductor Index Option (SOX) outperformed market indices last month and for the year. During February the SOX declined by -4.4% compared to -11% drops in the DOW and S&P500 and a -6.7% fall in the NASDAQ. And year-to-date the SOX has outperformed even better, with a decline of -6.2% compared to -19% drops in the DOW and S&P500 and a -12.6% fall in the NASDAQ.

February			
Winners *(44/117)*		Losers	
SIRF	79.4%	PXPL	-92.6%
SWKS	50.5%	ITLN	-44.9%
SIGM	34.2%	ENTN	-43.5%
PLXT	29.7%	SIMG	-36.8%
LDIS	28.9%	CNXT	-33.3%
average stock -4.0%		*SOX -4.4%*	

YTD			
Winners *(43/117)*		Losers	
MIPS	80.2%	PXPL	-93.5%
HIFN	65.7%	SPSN	-73.7%
LDIS	48.5%	QI	-63.2%
SIGM	44.4%	IFX	-57.1%
SIRF	43.0%	ENTN	-55.2%
average stock -5.7%		*SOX -6.2%*	

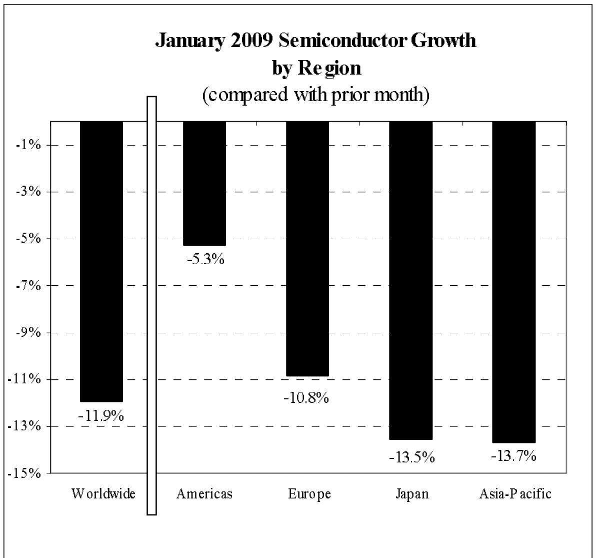
Indices		
	Feb	*YTD*
SOX	-4.4%	-6.2%
SMH	-2.7%	-6.5%
NAS	-6.7%	-12.6%
S&P500	-11.0%	-18.6%
DOW	-11.7%	-19.5%

Near term, my guess is that we achieve a revenue bottom during 1Q across most of the industry—primarily from chip companies with large exposures to PC and cell phone markets—with the slower-moving telecom and networking sectors stretching their bottoms into 2Q. However, I also see a bathtub bottom for at least a couple of quarters before any kind recovery materializes—and the profile of that recovery might well be fairly shallow. Given this kind of business environment, I think equity markets in the chip sector are in for a series of bear-market rallies throughout much of this year, as optimists trying to call the timing and profile of the ultimate recovery are repeatedly disappointed. In other words, ***'it's a stock-pickers market for short-term traders.'***

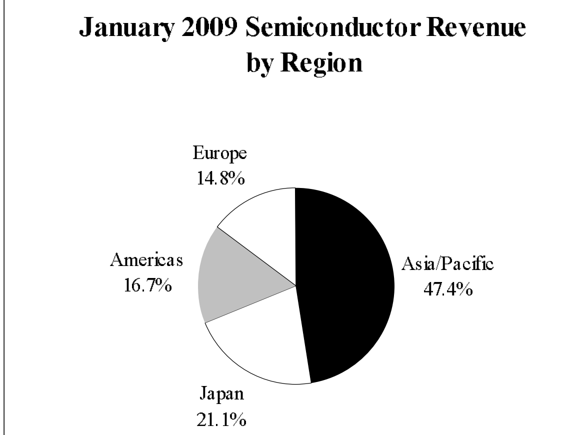
Cash is king and all eyes are fixed on balance sheets and cash flows these days as income statements lay dormant amid the current lack of growth and profitability. And this has sent share price valuations to record lows across the entire sector. Over 95% of the equities in the Tokeneke Universe are trading below their average historical price-sales averages, and 90% are trading at least 30% below that average.

Surviving equities are well primed for multi-bagger gains when the economy finally recovers, but picking those winners and timing the bottom will claim its own set of casualties across the investment community. Be nimble, be quick, and beware.

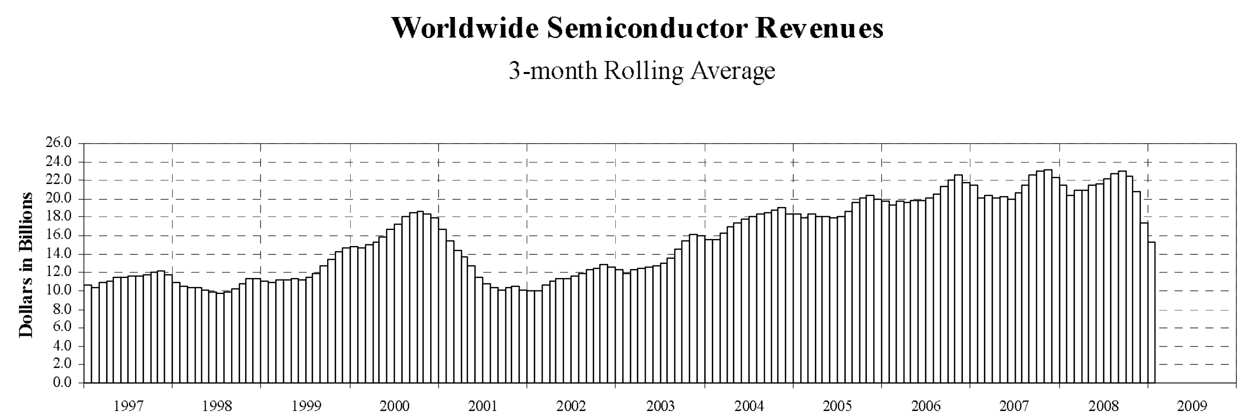
—Dan K. Scovel
Semiconductor Analyst



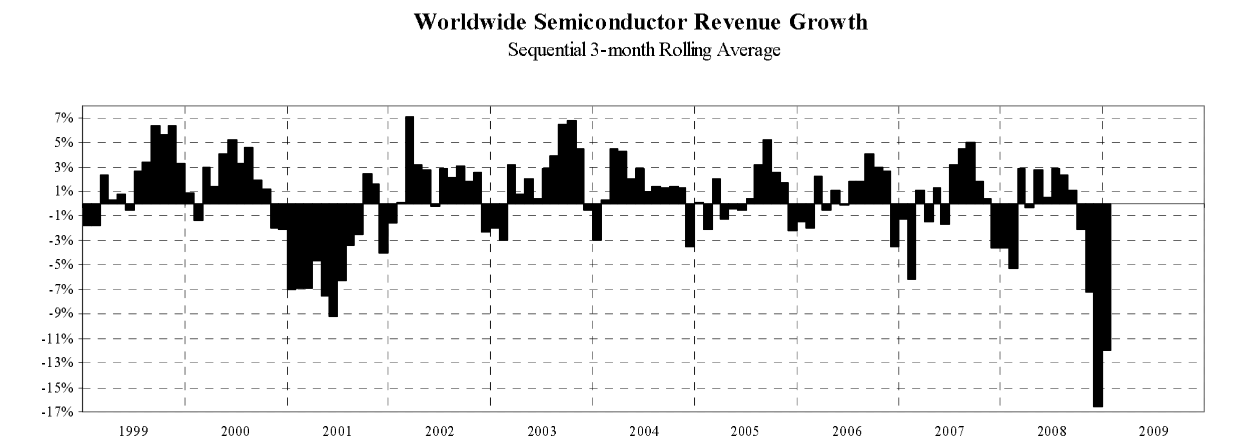
Source: WSTS and Tokeneke Research LLC



Source: WSTS and Tokeneke Research LLC



Source: WSTS and Tokeneke Research LLC



Source: WSTS and Tokeneke Research LLC

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

Sources: Tokeneke Research LLC

**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

- *Monthly Newsletter:* A summarized review of noteworthy industry business developments, sales statistics, and sector equity market performance, as well as a near-term and annual outlook for sector business fundamentals and share prices. This report typically includes two pages of text and a handful of recurring charts and tables. It is intended for relatively broad-based distribution.
- *Industry Reports:* A semi-annual publication offering insight and perspective to industry-wide, multi-year forecast updates; periodic sub-sector product type and/or end-market reviews; fundamental and valuation perspectives on sector equity relationships; and an industry introduction and overview. These are more detailed reports with varying shelf-lives, and are intended for narrow distribution to interested clients.
- *Company Reports:* Fundamental equity research including earnings estimates and customized valuation analysis.
- *Consulting:* Special projects of limited or extended duration, as well as periodic access of varying frequency.

Publications are distributed via email in .pdf format, unless otherwise requested. Client confidentiality and customized research exclusivity accommodated. Rates vary with the nature, duration, and terms of offerings.

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.

—Dan K. Scovel
Semiconductor Analyst

Tokeneke Research *LLC*
Rowayton, CT 06853
203-604-0183 *phone*
203-554-4621 *cell*
dscovel@tokenekeresearch.com
www.tokenekeresearch.com