

## Earthquake, Tsunami, Downturn, Flood 2H Weakness Aggravated by Thai Flooding, Smartphones a Haven

The 3Q earnings season is now over 80% complete after the third full week of company announcements, and it is clear that flooding in Thailand will further aggravate the cyclical business downturn currently underway across the semiconductor industry. At the same time, equity market volatility continues to be driven primarily by debt restructuring news out of Europe rather than industry and/or business fundamentals. Shares remain largely attractive based on fundamental valuations, but business conditions, equity volatility and very low trading volumes continue to keep me on the sidelines. I believe the chip sector is primed for a rally, but share prices need to find a bottom, first.

**September Gains:** September turned out to be a surprisingly normal month for growth despite pervasive reports of 3Q weakness. Semiconductor industry statistics released last week for the month of September reported sequential world-wide sales growth of +2.7% on a three-month rolling average basis, which is only slightly below the average since 1990 of +3.1%. September is typically a seasonally strong month that has only contracted once in the last 21 years with a high of +8.2% and a low of -2.5%. Japan continued its recovery following March's disasters with a gain of +4.2% followed by Asia-Pacific with +3.2%, Europe with +2.1% and the Americas trailing with +0.7%.

I expect to see growth even more suppressed on a relative basis next month when October statistics are released, probably in a range around +1% or less. October typically reflects seasonal strength with average growth since 1990 of +2.7%, a high of +6.8%, a low of -2.0%, and contracting sales only twice in the last 21 years.

**3Q Disappointment:** 3Q was lackluster by any measure, although reported industry statistics don't nearly seem to capture the depth and breadth reported by a wide variety of companies during earnings season. The quarter grew by a reported +3.5%, or a little better than half of the average growth of +6.6% with a high of +19.9%, a low of -11.7%, and a sequential decline only twice in the last 21 years.

However, the quarter is even more disappointing from a company earnings perspective. As of this writing the bulk of semiconductor firms have reported financials for calendar 3Q, and a solid 82% of them have shared some combination of shortfall across expected 3Q revenue, 3Q EPS, and 4Q revenue guidance. True, there are those 18% that managed to meet and/or exceed expectations, including the billion-dollar titans Intel and Qualcomm that almost single-handedly appear to be supporting those industry statistics. But let's face it—tempered expectations should have been much more prevalent given the 27 negative preannouncements from a solid one-quarter of the Tokeneke Semiconductor Universe coming into the period.

**Cyclical Downturn Underway:** The breadth and depth of lackluster financial performance is clearly heralding a counter-seasonal cyclical downturn across the chip sector as the vast majority of chip firms are reporting decreasing revenues during the traditionally strong second half of the calendar year. And this weakness is consistent with the bigger picture of doom and gloom amid macroeconomic uncertainty.

The series of statistics cited in my 3Q Earnings Summary publication help to quantify this downturn. With 83 out of 103 companies in the Tokeneke Universe reporting 3Q financials, the weighted sequential quarterly growth of +2.8% does fall a bit short of the industry statistics +3.5%. Nevertheless, if I take monster INTC out of the equation, that weighted growth rate drops to +0.4%. And even worse, the average company reported a decline of -0.3%. Revenue guidance for 4Q is even worse. Historical average growth for 4Q is +2.1% with a high of +16.0%, a low of -24.2%, and negative growth in seven out of the last 21 years. The Tokeneke Universe of companies is guiding for weighted sales growth this quarter of -4.5% to +1.3% centered on -1.6%. If we take INTC out, that range drops to -6.3% to -0.9% centered on -3.6%. And on a company-average growth basis we are looking at -9.0% to -3.4%.

**A Year of Disasters:** Japan is heroically recovering from its triple-whammy in March consisting of an earthquake, tsunami and nuclear disaster. And now we have a cyclical downturn in the chip business. And to make matters even worse, we get the recent flooding in Thailand. The direct impact appears to be most pronounced on hard disk drive manufacturing, but it is also affecting the assembly and test operations at a number of chip companies as well. Nevertheless, the indirect impact to PCs from the shortage of disk drives is likely to be the most profound.

As of this writing it appears that as much as one-third of the 175M units of disk drives manufactured each quarter will be missing beginning in December as inventories are flushed through the supply chain, with the worst of the shortfall occurring during the first quarter next year before any corrective action can be implemented. PC unit shipment impact could be in the range of 10% this quarter and focused on the notebook form factor, and this clearly has ramifications for microprocessors, DRAMs, and a wide variety of ancillary ICs and components.

Some—but not all—chip companies have been able to size expectations of the potential direct impact. LSI expects its business to be hurt by \$35-45M on total sales around \$525M. ONNN estimates its Thai facilities account for production worth 15% of sales and estimated a 4Q revenue shortfall of \$60M on sales of \$900M, while NXPI's Thai operations account for 23% of revenue. Press releases from MSCC and INFN sized the contribution of affected facilities at 5% and 5-15% of production revenue, respectively, with no more than a guess that a recovery might extend sometime over the next two to three quarters. Clearly, there is downside risk to current 4Q expectations.

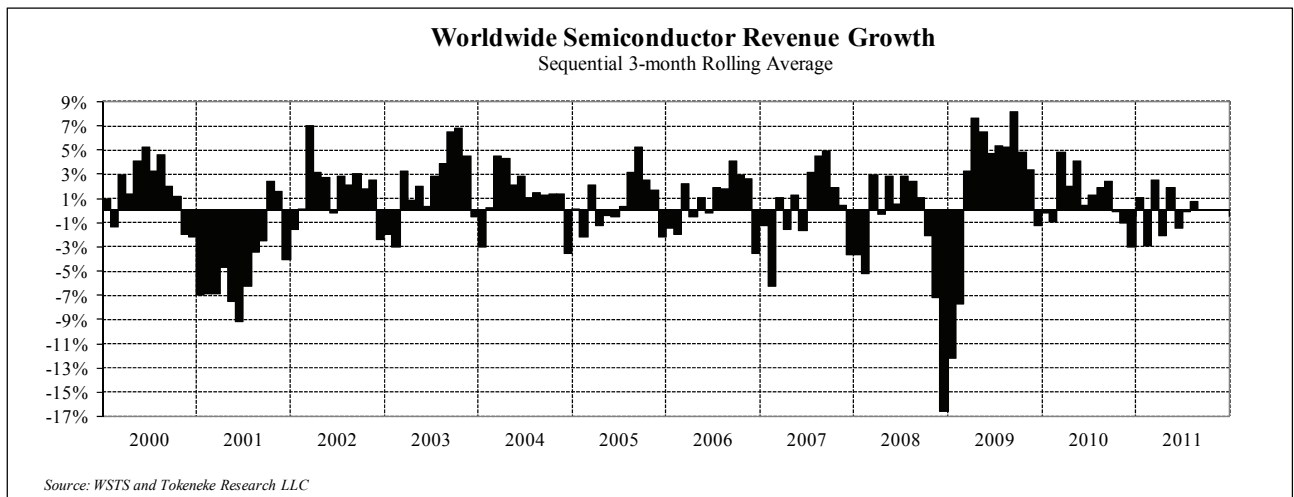
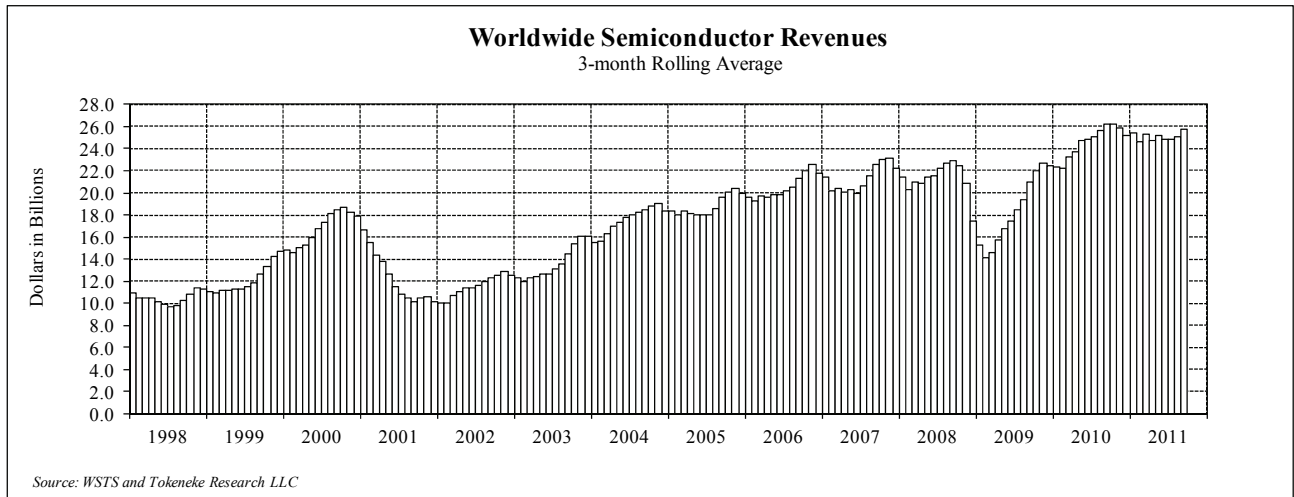
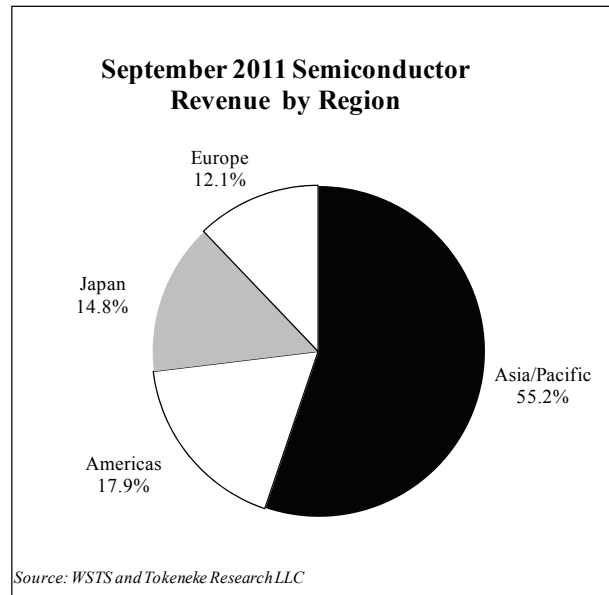
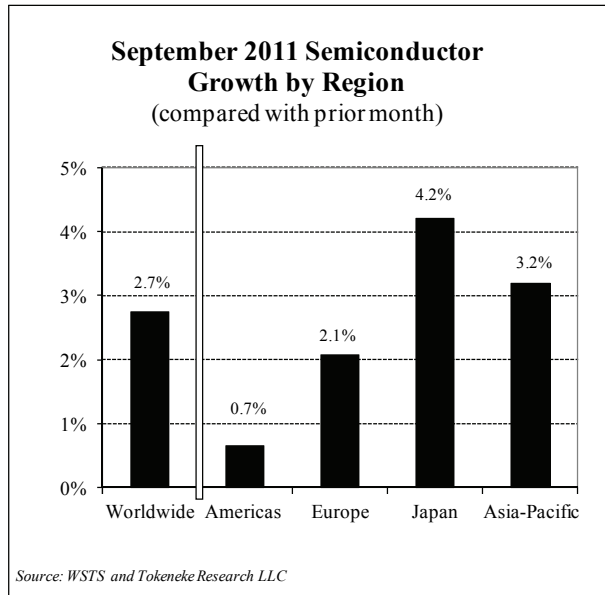
**Pockets of Strength:** Nevertheless, pockets of strength do exist: mostly smartphones, but tablets and automotive markets, for example. And even more rare are the eight companies so far expecting sequential sales gains for both quarters in the second half, including AMD (PCs), CRUS (supplying Apple), GGOX (tiny start-up), INTC (PCs), QCOM (smartphones), SNDK (NAND flash), RFMD (smartphones) and MLNX (high-speed networking/storage).

**October Rally!?:** So, amid all this bad news we saw the equity markets rally last month—and the chip sector even out-performed that rally! (Note the table below.) Why? Because 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 those who do are incorrectly extrapolating the strength at INTC and QCOM throughout the rest of the sector. And all this is working to support to chip sector share prices when they should be finding a bottom. Go figure. In short, I simply don't trust this market. And I won't, until sector share prices find a bottom.

October				YTD				Indices		
Winners (90/103)		Losers		Winners (27/103)		Losers			Oct	YTD
SPRD	48.0%	NPTN	-24.0%	SIMO	295.1%	TRID	-69.7%	SOX	14.1%	-6.2%
SIMO	45.2%	CODE	-15.8%	NETL	56.6%	MIPS	-63.7%	SMH	11.6%	-2.4%
ENTR	40.9%	VTSS	-11.2%	CEVA	51.6%	ANAD	-62.0%	NAS	11.1%	1.2%
FCS	38.6%	MXL	-9.9%	AUTH	46.0%	VIMC	-57.1%	S&P500	10.8%	-0.3%
NLST	31.7%	BCDS	-8.0%	SPRD	44.6%	BCDS	-56.2%	DOW	9.5%	3.3%
average stock +13.7%		SOX +14.1%		average stock -14.0%		SOX -6.2%				

**Patience:** I'm not convinced chip sector share prices have bottomed despite the magnitude and breadth of reported business weakness over the last several weeks, as well as the rally in share prices. The fact is individual stocks are still getting clobbered on bad news, which means the bad news has not yet been fully discounted. Investors remain focused on bond spreads and world-wide monetary and fiscal policies while equity market trading volumes flop around in the gutter. At some point equities will return to favor as an asset class. And when it does, I believe fundamental valuations are likely to justify a rally—and technology is highly likely to lead the pack. But first, we need to find that bottom.

—Dan K. Scovel  
Semiconductor Analyst



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



Sources: 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.

**—Dan K. Scovel**  
*Semiconductor Analyst*

## **Tokeneke Research LLC**

Rowayton, CT 06853

203-554-4621

[dscovel@tokenekeresearch.com](mailto:dscovel@tokenekeresearch.com)

[www.tokenekeresearch.com](http://www.tokenekeresearch.com)

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