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Asia-Pac Soars, Japan Drops in Regional Semiconductor Capex Spending

Capex spending flips in Asia-Pac and Japan; Europe's share erodes while North America gains.

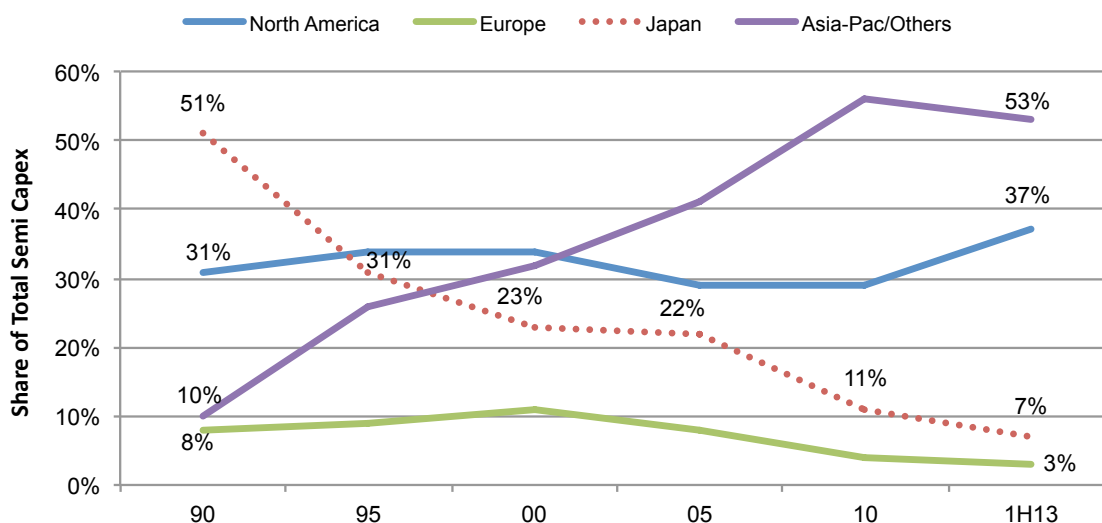
Semiconductor industry capital spending trends will be a major topic covered at IC Insights' Fall Forecast Seminar this Thursday, September 12, in Sunnyvale, California. See details at the end of this Research Bulletin.

In its Research Bulletin dated August 27, 2013, IC Insights traced the sales of the top 10 semiconductor companies dating back to 1985. In 1990, six Japanese companies were counted among the top 10 leaders in semiconductor sales. In that year—in many ways, the peak of its semiconductor manufacturing and market strength—Japanese companies accounted for 51% of total semiconductor capital spending (Figure 1).

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Semiconductor Capital Expenditures by Region



Source: IC Insights

Figure 1

North American companies accounted for 31% of semiconductor capex in 1990 and the Asia-Pacific region captured 10% share, slightly ahead of the 8% held by European companies. For perspective, Japan's

share of semi capex in 1990 was 20 points more than North America, 41 points more than Asia-Pacific, and 43 points more than Europe.

After reaching its highest-ever share of capital spending in 1990, Japan relinquished 20 points of marketshare and in five years trailed North America in semiconductor capital spending. Economic malaise forced many of Japan's strongest semiconductor companies to trim capex budgets and re-evaluate long-term strategic business plans. At the same time, Japan was also feeling competitive pressure from South Korea, which had developed a strong memory manufacturing presence of its own; and from Taiwan, where the foundry business model was beginning to prosper. In 1998, Japan trailed not only the North America region in semiconductor capital spending, but the Asia-Pacific region as well. Fast-forward to 2010 and Japan and Asia-Pacific had essentially swapped places in terms of semiconductor capex marketshare. In 1H13, Japan's share of total semiconductor capital spending had dwindled to 7%.

Japanese suppliers that are no longer in the semiconductor business include NEC, Hitachi, and Matsushita. Other Japanese semiconductor companies that have greatly curtailed semiconductor operations include Sanyo, which was acquired by ON Semiconductor; Sony, which cut semiconductor capital spending and announced its move to an asset-lite strategy for ICs; Fujitsu, which sold its wireless group to Intel, sold its MCU and analog IC business to Spansion, and is consolidating its system LSI business with Panasonic's; and Mitsubishi.

Meanwhile, from 2000-1H13, China joined semiconductor companies in South Korea, Taiwan, and Singapore by investing heavily in wafer fabs and advanced process technology. These investments by Asia-Pacific companies were used primarily to produce DRAM and flash memory, microcontrollers, and to bolster wafer foundry operations. Asia-Pacific accounted for 53% of capex marketshare in 1H13, down slightly from its 55% peak in 2010.

Mostly on account of spending by Intel, GlobalFoundries, Micron, and SanDisk, North America accounted for 37% of capital spending in 1H13, a few points higher than the steady 29%-33% share it has held since 1990.

There are three large European semiconductor suppliers and each now operates using a fab-lite or asset-lite strategy, which is why semiconductor capital spending from European companies accounted for only 3% of total capex in 1H13. IC Insights forecasts capex spending by Europe-based ST, Infineon, and NXP and all other European semiconductor suppliers combined will amount to less than \$1.5 billion in 2013. Led by Samsung, Intel, and TSMC, there are nine semiconductor suppliers that are forecast to spend more money on their own than Europe will spend collectively in 2013. In IC Insights' opinion, IC manufacturers that are currently spending less than \$1.0 billion a year on capital outlays will find it just about impossible to continue being able to manufacture using leading-edge digital processing technology, which is why European suppliers now outsource their most critical processing to foundries.

Report Details: *The 2013 McClean Report*

Data in this Research Bulletin was excerpted from the upcoming *September Update* to IC Insights' flagship report, *The McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry*. A subscription to *The McClean Report* includes **free** monthly updates from March through November (including the 250+ page *Mid-Year Update*), and **free** access to subscriber-only webinars throughout the year. An individual-user subscription to the 2013 edition of *The McClean Report* is priced at \$3,390 and includes an Internet access password. A multi-user worldwide corporate license is available for \$6,390.

Thursday, September 12, 2013 — IC Insights' Fall Forecast Seminar

Mark your calendars and plan now to attend IC Insights' *Fall Forecast Seminar* that will be held in Sunnyvale, California on Thursday, September 12, 2013, from 9:00AM to 12:00PM. IC Insights' president Bill McClean will explain and discuss the assumptions behind IC Insights' recently updated semiconductor forecast for the balance of 2013 and beyond. This dynamic and informative half-day seminar will help you make well-informed decisions as you formulate your near-term and long-range business plans. Current IC Insights clients can attend for \$295. Pricing for others is \$395. Register now by visiting <http://www.icinsights.com/events/fall-forecast-seminar/>

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About IC Insights

IC Insights, Inc., based in Scottsdale, Arizona USA, is dedicated to providing high-quality, cost-effective market research for the semiconductor industry. Founded in 1997, IC Insights offers coverage of global economic trends, the semiconductor market forecast, capital spending and fab capacity trends, product market details, and technology trends, as well as complete IC company profiles and evaluations of end-use applications driving demand for ICs.

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