

RESEARCH BULLETIN

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Volatile DRAM and Flash Memory Cycles Weigh On IC Market Growth

Positive and negative, memory sales continue to strongly impact total IC market.

IC Insights recently updated its 2019-2023 semiconductor market forecasts in its *March Update* to the 500-page, 2019 edition of *The McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry*.

In the *March Update*, IC Insights shows how the total memory market heavily influenced total IC market growth for the positive during the past two years but will likely have a very negative impact on total IC market growth in 2019.

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The DRAM and NAND flash markets continue to closely follow the original IC industry cycle model whereby the market cycles are primarily driven by fluctuations in capital spending and capacity. Including IC Insights' forecast for 2019, it appears that little has changed regarding the extremely volatile nature of DRAM market cycles (Figure 1).

1994-2019F DRAM Market Growth

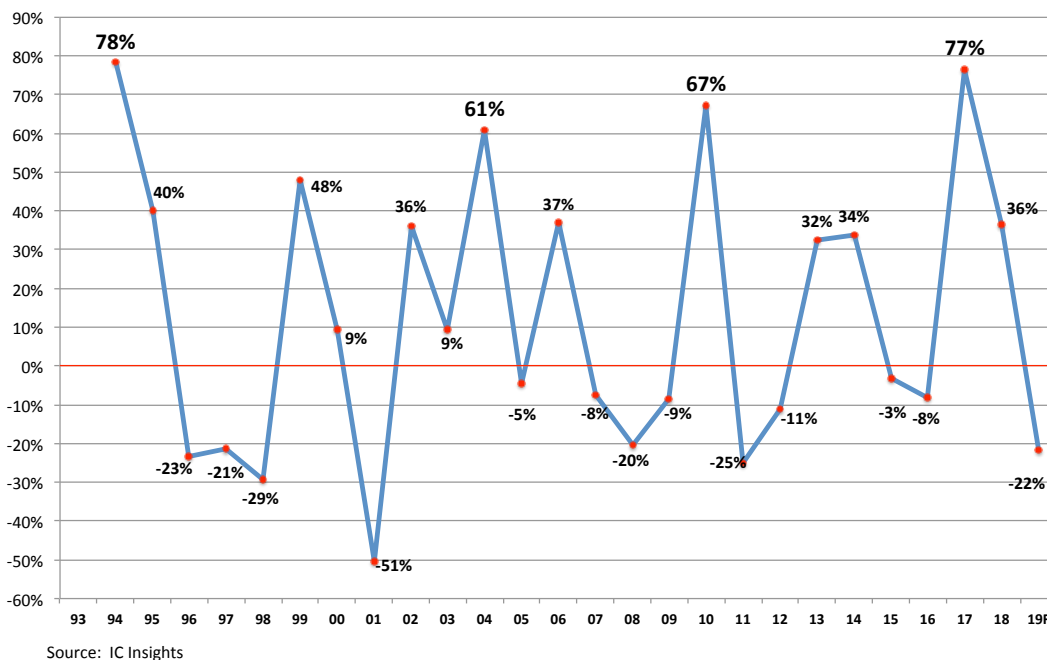


Figure 1

At \$99.4 billion, the DRAM market was by far the largest single product category in the semiconductor industry in 2018, exceeding NAND flash (\$59.4 billion), the second-largest market by \$40.0 billion. Since 2013, the memory market has been a tailwind (i.e., positive influence) on total annual worldwide IC market growth and only once a headwind (i.e., negative influence) (Figure 2).

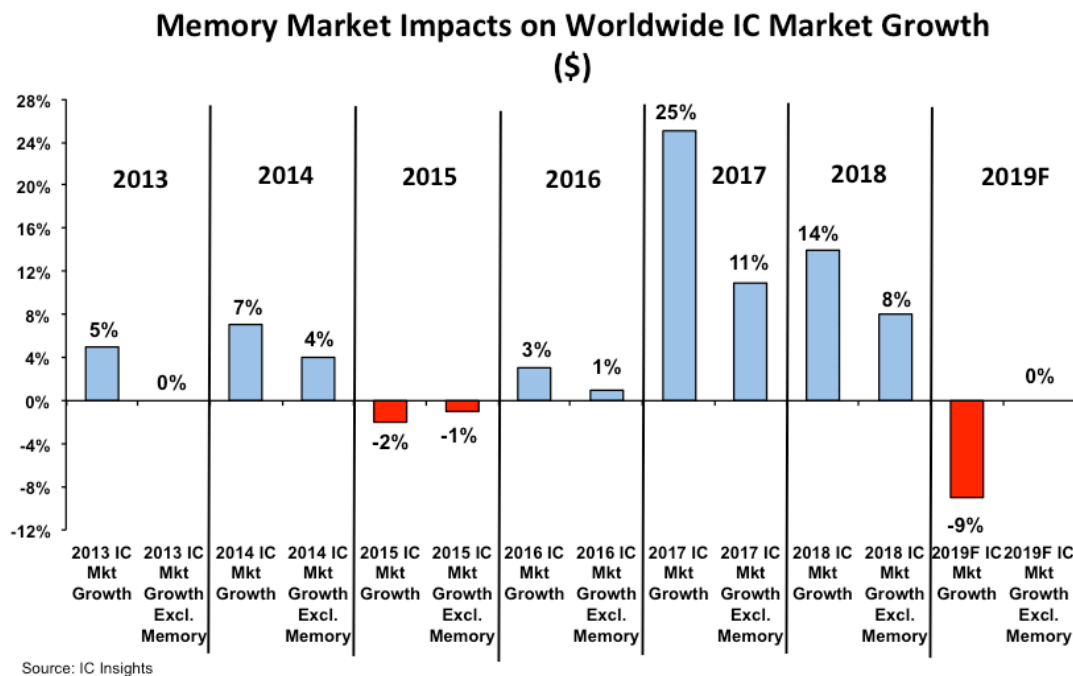


Figure 2

A memory market segment surge of 64% in 2017 helped boost the total IC market growth rate by a whopping 14 percentage points. Despite a fourth quarter slowdown, the 2018 memory market grew by a strong 26%, providing a very substantial six point positive impact on worldwide IC market growth for the full-year.

For 2019, the memory market is forecast to be a significant headwind on worldwide IC market growth. The total memory market is forecast to fall by 24% this year (a decline of \$38.6 billion). The big decline in the memory market is forecast to drag down total IC market growth by 9%. Factoring out memory, the total IC market growth rate is forecast to be flat (0%) this year.

Report Details: *The 2019 McClean Report*

Additional details on IC market trends and forecasts are provided in *The McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry* (released in January 2019). A subscription to *The McClean Report* includes **free** monthly updates from March through November (including a 200+ page *Mid-Year Update*), and **free** access to subscriber-only webinars throughout the year. An individual-user license to the 2019 edition of *The McClean Report* is priced at \$4,990 and includes an Internet access password. A multi-user worldwide corporate license is available for \$7,990.

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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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