

RESEARCH BULLETIN

NOVEMBER 29, 2018

Samsung's Big Semi Capex Spending Keeps Pressure on Competition

Samsung's two-year capex spending of \$46.8 billion nearly matches the combined two-year capex spending of \$48.4 set by Intel and TSMC.

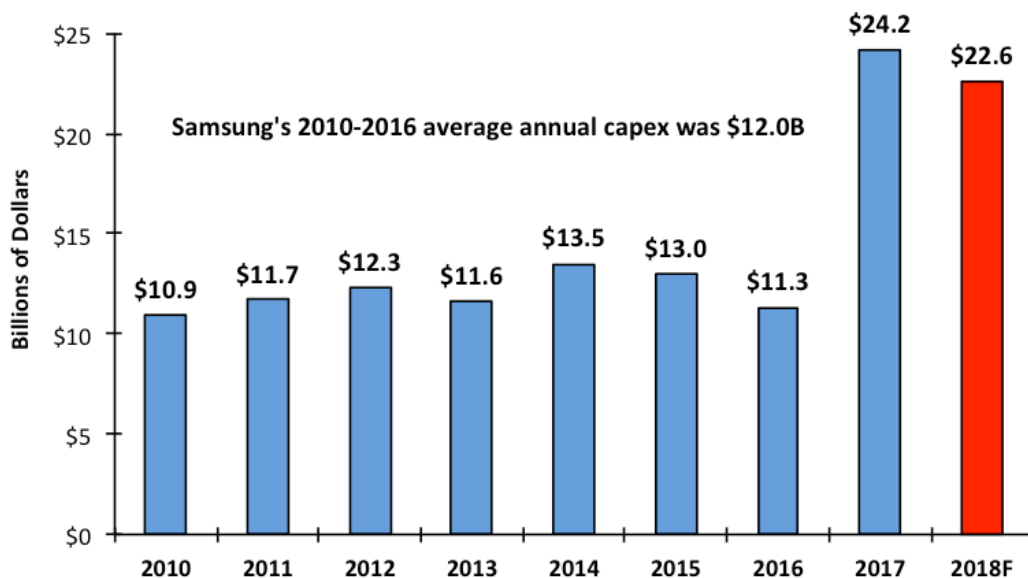
IC Insights revised its outlook for total semiconductor industry capital spending and presented its forecast of semiconductor capex spending for individual companies in its *November Update to The McClean Report 2018*, which was released earlier this month.

Samsung is expected to have the largest capex budget of any IC supplier again in 2018. After spending \$24.2 billion for semiconductor capex in 2017, IC Insights forecasts that Samsung's spending will edge slightly downward, but remain at a very strong level of \$22.6 billion in 2018 (Figure 1). If it comes in at this amount, Samsung's two-year semiconductor capital spending will be an astounding \$46.8 billion.

MORE INFORMATION CONTACT

Bill McClean
 President
 Phone: +1-480-348-1133
 Email: bill@icinsights.com

Samsung's Annual Semiconductor Capex Trend



Source: Company reports

Figure 1

As seen in Figure 1, Samsung’s semiconductor capital outlays from 2010, the first year it spent more than \$10 billion in semiconductor capex, through 2016 averaged \$12.0 billion per year. However, after spending \$11.3 billion in 2016, the company more than doubled its 2017 capex budget. The fact that Samsung’s continued its strong capex spending in 2018 is just as impressive.

IC Insights believes that Samsung’s massive spending outlays in 2017 and 2018 will have repercussions far into the future. One effect that has already begun is a period of overcapacity in the 3D NAND flash market. This overcapacity situation is due not only to Samsung’s huge spending for 3D NAND flash, but also from spending by competitors (e.g., SK Hynix, Micron, Toshiba, Intel, etc.) that attempt to keep pace in this market segment.

With the DRAM and NAND flash memory markets showing strong growth through the first three quarters of 2018, SK Hynix ramped up its capital spending this year. In 1Q18, SK Hynix said that it intended to increase its capex spending by “at least 30%” this year. In the *November Update*, IC Insights forecasts that SK Hynix will see a 58% surge in its semi capex spending. The increased spending by SK Hynix this year is focused primarily on bringing new capacity online at two of its large memory fabs—M15, a 3D NAND flash fab in Cheongju, South Korea, and the expansion of its huge DRAM fab in Wuxi, China. The Cheongju fab is being pushed to open before the end of this year. The Wuxi fab is also targeted to open by the end of this year, a few months earlier than its original start date of early 2019.

Overall, IC Insights’ now forecasts total semiconductor industry capital spending will climb 15% to \$107.1 billion this year, the first time that annual industry capex is expected to top \$100.0-billion. Following the industry-wide growth this year, semiconductor capex is expected to decline 12% in 2019 (Figure 2).

2019F Major Capital Spenders

2018F Rank	Company	Headquarters Location	2017 (\$M)	2018F (\$M)	18/17 % Change	2019F (\$M)	19/18 % Change
1	Samsung	South Korea	24,232	22,620	-7%	18,000	-20%
2	Intel	U.S.	11,778	15,500	32%	13,500	-13%
2	SK Hynix	South Korea	8,091	12,800	58%	10,000	-22%
4	TSMC*	Taiwan	10,846	10,250	-5%	10,000	-2%
5	Micron	U.S.	6,475	9,960	54%	9,500	-5%
—	Top 5 Total	—	61,422	71,130	16%	61,000	-14%
—	Others	—	32,055	36,010	12%	33,590	-7%
—	Total Spending	—	93,477	107,140	15%	94,590	-12%

*Pure-Play Foundry

Source: IC Insights, Company Reports

Figure 2

Given that the current softness in the memory market is expected to extend into at least the first half of next year, the combined capital spending by the three largest memory suppliers—Samsung, SK Hynix, and Micron—is forecast to drop from \$45.4 billion in 2018 to \$37.5 billion in 2019, a decline of 17%.

In total, the top five spenders, which are expected to represent 66% of total outlays this year, are forecast to cut their capital spending by 14% in 2019 with the remaining semiconductor industry companies registering a 7% decline.

Report Details: *The McClean Report 2019*

The 2019 edition of *The McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry*, will be 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.

As part of your 2019 subscription, you are entitled to free attendance at a *McClean Report* seminar (one seat for each copy purchased; company-wide licensees receive five free seats). The schedule for next year's seminar tour is shown below.

Tuesday, January 22, 2019 — Scottsdale, Arizona
Thursday, January 24, 2019 — Sunnyvale, California
Tuesday, January 29, 2019 — Boston, Massachusetts

To review additional information about IC Insights' new and existing market research products and services please visit our website: www.icinsights.com

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.

Web Site: www.icinsights.com • **Phone:** +1-480-348-1133 • **E-mail:** info@icinsights.com