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New 2016 *McClean Report* Examines Worldwide GDP Growth and its Impact on 2016 IC Market Growth

Slow-growth regional GDPs weigh heavy on potential global IC growth.

The worldwide electronics industry is greatly influenced by consumer purchases of smartphones, PCs, automobiles, and many other devices and systems. The better the worldwide economy performs, the more money consumers will spend on electronic systems, which in turn creates a positive environment conducive to good IC market growth. For 2016, IC Insights is taking a conservative approach to worldwide GDP with forecast growth of 2.7%, which is only slightly better than the 2.5% global GDP growth in 2015. Some observations regarding worldwide GDP include the following.

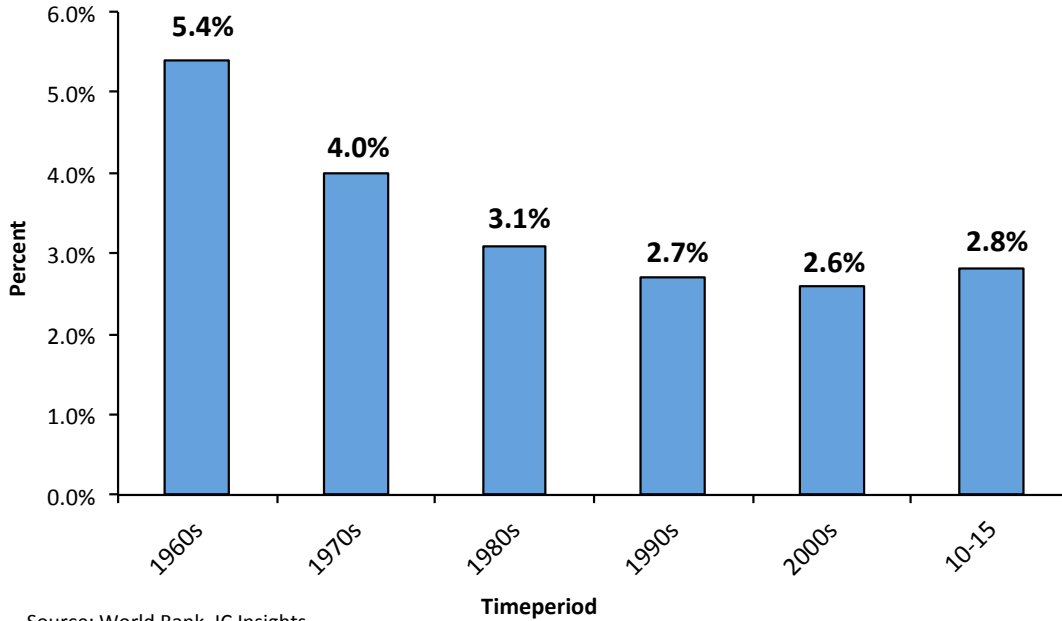
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- Average annual worldwide GDP figures have declined every decade since the 1960s with a slight rebound registered in the first six years of the current decade (Figure 1). Worldwide annual GDP growth has averaged **2.8%** since 1980.
- Worldwide annual GDP growth rarely goes negative (the last negative worldwide GDP year before 2009 was in 1946) and rarely goes above 5.0% (with the usual associated surge in oil prices acting as a strong limiting factor).
- A worldwide GDP growth rate of **2.5%** or less is considered by most economists to be indicative of a *global recession*, which puts 2015's growth right at the threshold. Prior to the late 1990s, when emerging markets like China and India represented a much smaller share of the worldwide economy, a global recession was typically defined as **2.0%** or less growth. The global recession threshold has never been a "hard and fast" rule, but the guidelines discussed here are useful for this analysis.

IC Insights depicts the increasingly close correlation between worldwide GDP growth and IC market growth in Figure 2.

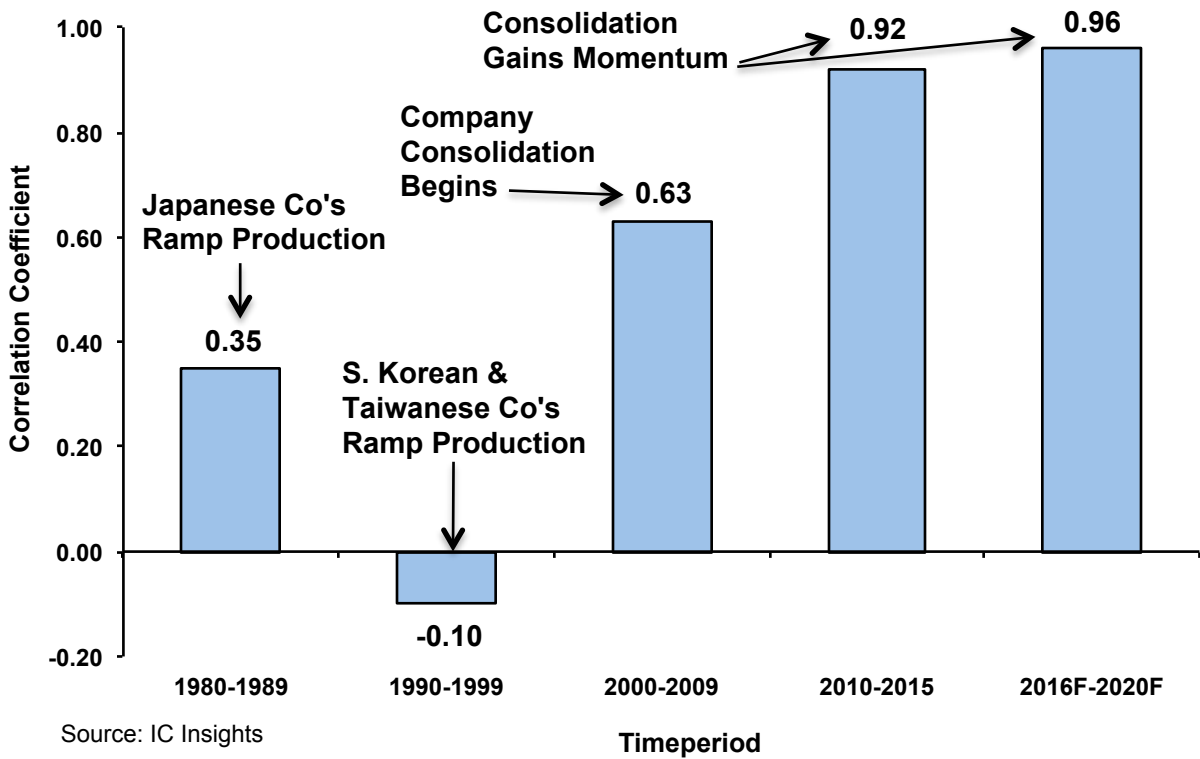
Average Annual Worldwide GDP Growth Rates



Source: World Bank, IC Insights

Figure 1

Worldwide GDP and IC Market Growth Correlation Coefficient History and Forecast (1980-2020F)



Source: IC Insights

Figure 2

As seen in Figure 2, the 2010-2015 correlation coefficient between worldwide GDP growth and IC market growth was 0.92, a very strong figure given that a perfect correlation is 1.0. In the three decades previous to this timeperiod, the correlation coefficient ranged from a relatively weak 0.63 in the early 2000s to a negative correlation of -0.10 in the 1990s.

IC Insights believes that the growing number of mergers and acquisitions in the IC industry (discussed in detail in Section 3 of the new *2016 McClean Report*) has resulted in fewer major IC manufacturers and suppliers and is just one of the major changes in the supply base that illustrates the maturing of the industry. Other factors such as few, if any, new entry points for startup IC manufacturers, a strong movement to the fab-lite business model, and declining capex as a percent of sales ratios, are also indicative of dramatic changes to the semiconductor industry that are likely to lead to less volatile pricing and less volatile market cycles.

With forecasted annual worldwide GDP growth rates that range from 2.7% to 3.1% over the next five years, IC Insights' IC market growth rate expectations mirror the narrow range of worldwide GDP growth.

Report Details: *The 2016 McClean Report*

More information on global economic conditions and their impact on the IC industry are found in IC Insights' flagship market research report, *The McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry*. The new 478-page *McClean Report* provides IC market and technology trend forecasts from 2016 through 2020. A subscription includes **free** monthly updates from March through November (including a 250+ page *Mid-Year Update*), and **free** access to subscriber-only webinars throughout the year. An individual-user license to the 2016 edition of *The McClean Report* is priced at \$3,890 and includes an Internet access password. A multi-user worldwide corporate license is available for \$6,890.

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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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