Semiconductor Cycle Analysis and the Outlook for Renewed Revenue Growth
What Will Drive the Next Growth Cycle?

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Issue

The semiconductor industry started its most recent revenue growth cycle as annualized revenue growth started to improve after reaching a low point in June 2016. At this point annual revenue growth had fallen to -4.8%. Driven heavily by strong increases in DRAM and Data Flash pricing, total annual semiconductor revenue growth reached a peak of +22.4% twenty months later in January 2018. Annualized revenue growth has been weakening for the past sixteen months as the semiconductor industry comes down the back side of the cycle. Once again, memory pricing has played a major role in the magnitude of the swings in the semiconductor cycle. However, all major component categories have been generally aligned in following the same growth pattern. By May 2019 worldwide revenue growth had just dipped slightly negative at -0.3% annual growth. Quarter-over-quarter growth fell to -14.6% in May 2019. The data presented in Figure 1 illustrates the most recent semiconductor revenue growth cycles based on detailed reports from the World Semiconductor Trade Statistics (WSTS) industry association. As shown in this figure, the growth cycle continues to trend downward.

Figure 1 – Recent Worldwide Semiconductor Revenue Growth Cycles

Source – World Semiconductor Trade Statistics (WSTS)
Key questions that electronics components supply chain executives need to answer are, “When will this current cycle end?” and “When will the industry see a return to positive growth?” The answers to these questions will form the foundation for management of product orders and inventory levels. Of course, planning must take place at the granular, individual product level. However, understanding the profile of the overall semiconductor market provides a foundation for the timing of more detailed decisions and actions that need to be taken in order to meet customer demand while balancing inventories.

Analysis of historical semiconductor industry patterns can provide insights that will help set expectations for future growth. Expectations for growth must also be based on an understanding of market and technology forces that will drive future demand.

The full ECIA Executive Analysis provides figures and tables detailing the semiconductor revenue cycle and its relationship to the overall economy. Growth trends are analyzed and expectations for renewed growth are presented. Market and technology forces are identified that will drive the next cycle of growth. Finally, recommendations are presented to provide guidance to participants in the electronics components supply chain as they manage the challenges presented by the continual swings in the semiconductor market.

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