ECIA's chief analyst, Dale Ford, demonstrates how electronics components are poised for promising prospects in second half of 2020

The COVID-19 crisis has whipsawed the electronics components supply chain between an initial supply crunch to threats of collapsing end-market demand. Supply chain managers have been tested as they moved from the tariff wars of 2019 to the closure of China manufacturing facilities and logistics nightmares in early 2020 to quarantines and closure of all non-essential businesses as the year progressed and government officials worked with health experts to fight the spread of the virus. As the electronics components industry embarks on the second half of the year, it is instructive to assess the results of the first half of 2020 and attempt to gauge the forces that will shape supply chain demand moving forward.

Reviewing data from the World Semiconductor Trade Statistics (WSTS) reveals that the semiconductor industry has performed amazingly well as it achieved resilient results and is poised for a promising second half of the year. Annualized and quarter-over-quarter growth for semiconductor revenue is shown in Figure 1. With five months of actual results reported for 2020 semiconductor revenues, an early estimate for H1 2020 growth compared to H1 2019 is six percent worldwide and 24 percent for Americas. In both cases, the primary driver of growth is memory ICs. Memory ICs grew to account for 30 percent of total semiconductor revenues in May 2020. Americas growth is pushed much higher than worldwide growth due to memory ICs accounting for a much larger share of regional revenues. Estimated worldwide semiconductor growth in H1 2020 compared to H1 2019 for non-memory semiconductors is two percent.

There is a stark contrast between the revenue results for passive components and semiconductors. The quarter-over-quarter growth for the combination of capacitors, resistors, and inductors (most of passive component revenues) has lagged semiconductor revenues by

Figure 1: Worldwide Semiconductor Sales Growth. Source: World Semiconductor Trade Statistics (WSTS)
an average of 9.5 percent between Q3 2019 and Q1 2020. Of concern is the extreme slump in growth for this category in the Americas over this same period. The latest data for Q1 2020 shows a quarter-over-quarter decline in the Americas of 31 percent.

Looking forward to H2 2020 there are many reasons for optimism. Figure 2 shows the ECIA index for the electronics components supply chain outlook based on the ECIA survey of electronics component manufacturers, distributors and representatives. This index reflects the difficult period the industry experienced between March and May. However, there has been a strong rebound in optimism in all areas beginning in May looking toward June and stabilizing in positive territory in June look toward July. This provides an encouraging start for the second half of the year. There is one flashing red light. The quarterly North American Interconnect, Passive and Electromechanical (IP&E) Components Index, accounting for dollar value of orders received, collapsed from 102 in Q1 2020 to 73 in Q2 2020.

There are many other ‘environmental’ factors that give reason for a hopeful H2 2020 outlook including: strong US job growth in May and June; positive data regarding small businesses reopening; significant improvements in major stock indexes such as DJIA, NASDAQ and SOXX; the stated intention of the Federal Reserve Board to pursue pro-growth policies, etc.

However, the crisis is far from over and much uncertainty remains. Every economist hedges their predictions for the economy with contingencies for improving or worsening pandemic trends. In its June 2020 economic forecast IHS Markit noted that even ‘anticipating that growth will return in the third quarter in the American and European economies, these downturns will still be the worst since the end of World War II. For 2020 as whole, real GDP is projected to fall 8.1 percent in the US and 8.7 percent in the eurozone. Global real GDP is projected to decrease 6.0 percent in 2020, more than three times the 1.7 percent contraction in 2009 during the Global Financial Crisis’.

The deep political and social divisions in the country will likely inhibit further economic stimulus efforts and economic reopening timelines will vary widely from state-to-state.

Based on analysis of data from multiple sources, ECIA estimates worldwide semiconductor revenue growth will top three percent in H2 2020 compared to H2 2019. This will support full year growth in semiconductors of 4.5 percent in 2020. However, non-memory semiconductor growth will see a modest decline of -0.5 percent in 2020. Still, this is much better than the strong annual decline anticipated at the end of Q1 2020.

With the strong boost from memory revenues, Americas semiconductor revenue growth will likely top 23 percent. However, non-memory IC revenues in the Americas will see a decline similar to the worldwide trend. While not as robust as semiconductor revenues, passive revenues should fall by only around -0.5 percent worldwide. Unfortunately, given the most recent data for revenue growth for capacitors, inductors and resistors, 2020 is shaping up to be an extraordinarily difficult year for passive component revenues in the Americas region in spite of optimism reflected in the supply chain outlook index.

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**Figure 2:** Supply Chain Outlook Index for Electronic Component Sales. Source: ECIA