

January 2019

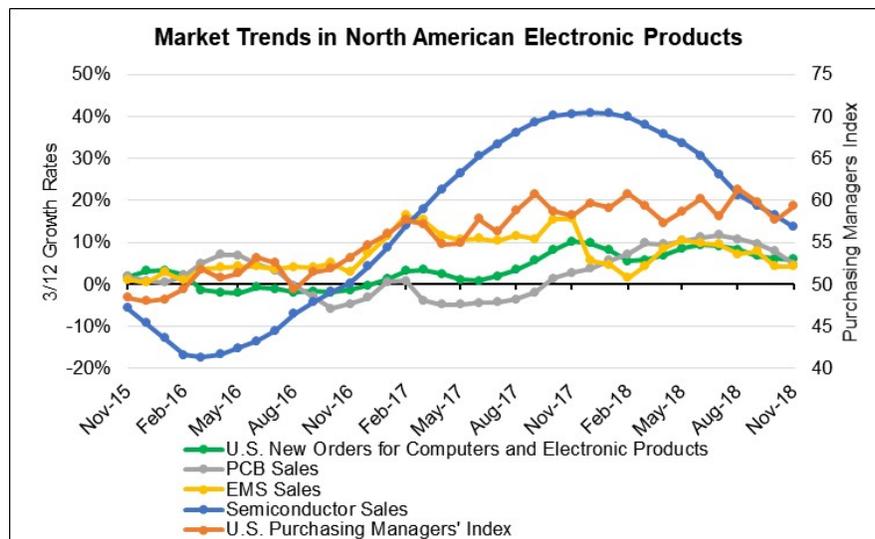
Slowing Growth Continues for North American Electronics Business While Leading Indicators are Mixed

North American electronics industry sales growth slowed but remained positive as of November 2018. The pace of growth slowed for printed circuit boards (PCBs) and semiconductors and remained flat for electronics manufacturing services (EMS). The growth cycle plateaued for semiconductors at the beginning of this year, followed by EMS and PCB sales growth, which plateaued in the second and third quarters, respectively. These year-over-year growth rates reflect three-month rolling averages.

The leading indicators are mixed. The U.S. Purchasing Managers' Index (PMI), which tends to lead industry sales by two to six months, increased in November and remains high. The PMI has fluctuated in recent months but has not revealed a clear upward or downward trend. It has been in positive territory (above 50) for over two years. The 3/12 rate of change for U.S. new orders for electronic products, which leads industry sales by one to three months, remained flat in positive territory.

Another leading indicator is IPC's PCB book-to-bill ratio. It is based on three-month rolling averages of orders and sales, and normally leads industry sales by three to nine months. The book-to-bill ratio declined to parity (1.00) in November for the first time in 22 months. It reached a high peak in February 2018 and has since been decreasing. This pattern reinforces the trend in slowing sales growth seen in recent months and suggests that the slowdown will continue into 2019. Ratios above parity (1.00) indicate greater demand than supply, which may be a precursor of sales growth for electronics manufacturers, especially when a run of positive ratios over several months is seen. Ratios below parity indicate the reverse.

These indicators suggest the likelihood of continued sales growth in the industry through the end of 2018 and into the first quarter of 2019.



Notes:

1. This information is provided by IPC International, Inc.
2. Other industry data can be found at www.ipc.org.
3. Three-month rolling averages smooth out some of the volatility in monthly data to show clearer trends.
4. November data on U.S. new orders is based on the U.S. Commerce Department's advance report for November. Final November data are not yet available due to the government shutdown.

Sources: IPC statistical programs for the EMS and PCB industries; SIA for semiconductor data; U.S. Census Bureau for U.S. new orders for computer and electronic products; and Institute for Supply Management for the U.S. Purchasing Managers' Index.