

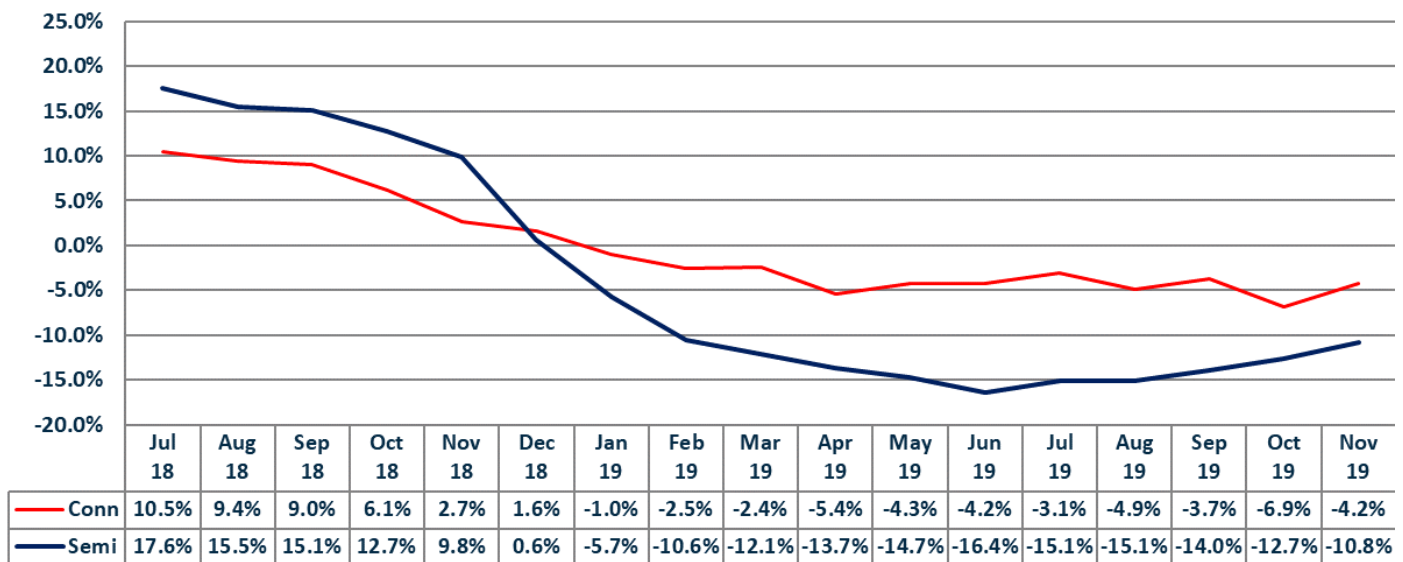
Semi Sales Contracted -10.8% in November Semi Sales Record Sequential Growth in Five of Last Seven Months

The Semiconductor Industry Association (SIA) reported November sales of \$36.7 billion, down -10.8% from prior year and down -0.3% sequentially. Regionally for November, the SIA reported that the Americas contracted -22.3% YOY, Japan was down -9.1%, Asia Pacific/Other decreased by -8.3%, Europe was down -8.0% and China contracted -6.0%.

Connector industry sales, measured in US dollars, declined -4.2% to prior year and increased +9.8% sequentially. Regionally for November, YOY sales decreased -2.6% in Japan, -2.3% in Europe, -9.4% in China, -10.9% in ROW and North America decreased -5.1%. Asia Pacific increased +5.1% YOY.

The following graph compares semiconductor sales performance to the connector industry since June 2018.

Monthly Sales Performance
Year-Over-Year



- In November, both semi and connector sales contracted for the 11th consecutive month. Connector sales have outperformed semis in the last 12 months.
- Semi and connector sales performance is leveling off in the YOY comparisons, in the negative mid-single-digits for connectors and the negative mid-teens for semis.

The following table displays year-to-date performance, measured in US dollars, by geographic region for both components.

**Sales Performance
2019 November YTD**

	Semiconductors	Connectors
North America	-25.6%	0.1%
Europe	-6.5%	-4.4%
Japan	-9.6%	-3.2%
China	-10.3%	-8.0%
Asia Pacific/Other	-8.8%	-3.0%
World	-12.9%	-3.8%

Source SIA & Bishop

Semi sales are declining at a faster rate than connectors, separated by 9.1 percentage points. YTD sales growth in North America is separated by over 25 percentage points. Considering the positive number for North American YTD connector growth, it is surprising that the semis contraction is so large in comparison.

High demand for semiconductors has always led to strong connector sales, but the opposite has also been true. Weak semi demand will, historically, result in weak connector demand.

On a positive note for semis, their sales have had positive sequential growth in five of the last seven months. This seems to point to a potential turn-around for the industry.

The various tariffs between the major regions/countries, and slowing GDP growth in many of these same countries, had an impact on the worldwide economic growth in the first 11 months of 2019. The move by the Federal Reserve and the ECB to hold or reduce interest rates may help slow the economic contraction. China is taking similar actions. We are hoping that the trade talks between the US and China will bring positive news over the next few months.