Recent Price Trends in the Semiconductor Industry
An overview of Semiconductor Manufacturing price indexes

U.S. Import and Export Price Indexes contain data on changes in the prices of nonmilitary goods and services traded between the United States and the world. The U.S. Bureau of Labor Statistics produces these indexes, which are Principal Federal Economic Indicators.

Q: How have import semiconductor prices trended over the 2015–2017 period? (See chart 1)

- The price index for import semiconductor manufacturing decreased 3.2 percent between December 2014 and December 2015, and declined 2.3 percent for the 12-months ended in December 2016. Import prices for semiconductor manufacturing then increased 2.5 percent overall in 2017; the largest 12-month increase since the index was first published in December 2005.
- The 2017 advance for import semiconductor manufacturing prices began with a 0.1-percent uptick in February 2017—the first monthly increase for the index since June 2014.
- Strong global demand for integrated circuits and chips fueled the rise of semiconductor manufacturing import prices throughout 2017.

Q: How did import semiconductor prices compare with other economic data?

- Both the import price index for semiconductor manufacturing and the corresponding export price index decreased in 2015 and 2016, and then increased for the year ended in December 2017. In contrast, the producer price index for semiconductors fell in all 3 years.
- Domestic producer prices for semiconductors trended downward overall over the 3-year period, falling 4.6 percent between December 2014 and December 2017.
- The producer price index for semiconductor manufacturing decreased 1.2 percent in 2015, 1.9 percent in 2016, and 1.6 percent in 2017.
Q: How have export semiconductor prices trended over the 2015–2017 period? (See chart 1)

- The export price index for semiconductors fell for the 12-month periods ended in December 2015 and December 2016, declining 1.9 percent and 0.8 percent, respectively. The index advanced 1.5 percent in 2017.
- Similar to imports, strong demand contributed to the increase in export semiconductor prices throughout 2017.

Q: What are the top six exporting states and territories for semiconductor manufacturing? (See chart 2)

- In 2017, the total trade value of exported semiconductors was over $58.4 billion, a 7.2 percent increase from 2016. The top 6 exporting states made up over 67.7 percent of this value.
- Texas and California ranked first and second, respectively, for exported semiconductors with a combined $25.7 billion in export trade.
- California grew 40.4 percent in semiconductor export value between 2016 and 2017, rising from $8.9 billion to end just over $12.4 billion worth of trade dollar value.

Q: How are import and export price indexes useful to you?

Import and export price indexes can provide a new perspective for your trade analyses. Although many sources report domestic market prices and trade volume, IPP data are unique in measuring import and export price movement.

For example, if you are involved in the semiconductor industry and are considering conducting business overseas, IPP semiconductor manufacturing indexes can supplement your industry research by providing long-term import and export price trends.

Q: How are import and export price indexes used?

Import and export price indexes are used for a variety of purposes:

- In the conversion of U.S. trade figures from current dollars to constant dollars in U.S. trade statistics including the Bureau of Economic Analysis’ Quarterly Gross Domestic Product and the Census Bureau’s monthly U.S. trade statistics.
- To assess the impact of international trade on domestic inflation and the competitive position of the United States.
- As a tool for analyzing fiscal and monetary policy, measuring the impact of exchange rates, and escalating trade contracts.
- To identify industry-specific and global price trends.

Chart 2: Top six exporting states and territories for semiconductor manufacturing in 2017

<table>
<thead>
<tr>
<th>State</th>
<th>Trade Value (Billions of Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>$13.3</td>
</tr>
<tr>
<td>California</td>
<td>$12.4</td>
</tr>
<tr>
<td>Oregon</td>
<td>$6.3</td>
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<tr>
<td>Arizona</td>
<td>$3.4</td>
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<tr>
<td>Massachusetts</td>
<td>$2.2</td>
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<td>Florida</td>
<td>$1.8</td>
</tr>
</tbody>
</table>

SOURCE: U.S. Census Bureau, Foreign Trade Statistics.