Recent Price Trends in the Semiconductor Industry

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 2010–2012 period? (See chart 1.)

- With the exception of a few sporadic and short-lived increases, the import price index for semiconductors trended down over the past three years, falling 6.8 percent overall.
- High competition and rapid technological advancement led to falling prices over most of the three-year period.
- Inventory levels tightened during 2010 and led to a sharp increase in prices from June to September. Another sharp break in the negative trend occurred in mid-2011 as a result of market worries about the supply from Japan after the March 2011 earthquake.

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

- Domestic semiconductor prices trended down between 2010 and 2012, and recorded a sharper decline for the period than import prices. Between 2010 and 2012, the price index for domestic semiconductors fell 9.0 percent.
- The dollar value of semiconductor imports rose over the three year period, especially in 2010 when it increased 5.8 percent from the previous year. By the end of 2012, the trade dollar value of semiconductor imports fell 0.8 percent compared to 2011 values.
Q: How have export semiconductor prices trended over the 2010–2012 period? (See chart 2.)

- Export prices reflected in U.S. dollar terms declined 1.3 percent from 2010 through 2012. Poor global demand following the economic downturn at the end of 2008, along with the highly competitive nature of this industry drove prices lower over the three-year period.

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

- Export price indexes in foreign currency terms can be approximated by multiplying the dollar price index by an index of the movement of the U.S. dollar compared to a weighted average of the currencies of major trading partners produced by the Federal Reserve.

- Over the three-year period, export semiconductor prices in foreign currency terms fluctuated more than the export price index in dollar terms. As the dollar depreciated during the second half of 2010 up to the third quarter of 2011, export prices in foreign currency terms fell, decreasing 10.8 percent. A stronger dollar contributed to higher prices in 2012.

Q: How are export semiconductor 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 inflation.

For example, if you are involved in the semiconductor industry and you are considering conducting business overseas, IPP semiconductor 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. Export semiconductor price indexes and dollar values