

## U.S. Manufacturing and Free Trade Agreements



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Thursday, 04 August 2011 11:07



Agriculture interest groups continue to be frustrated over the failure of Congress to pass free trade agreements with South Korea, Colombia and Panama. While the current holdup is reauthorization of Trade Adjustment Assistance for workers and businesses negatively impacted by trade, a deeper issue is the belief that the U.S. economy is losing its manufacturing base due to trade. That belief does not square with reported data on manufacturing for major countries.

The UN database on GDP for countries in constant 2005 dollars from 1970 through 2009 includes estimates by industry categories. Some countries like the U.S. have manufacturing as a separate category, but others combine manufacturing with utilities and mining. Using that definition the U.S. has increased manufacturing every year, except for recession years, from 1970 through 2009. U.S. manufacturing, mining and utilities output was valued at \$2.16 trillion in 2009, down from its peak of \$2.23 trillion in 2007. World manufacturing also declined from 2007 to 2009 to \$10.8 trillion. The U.S. share of the world total manufacturing, mining and utilities in 2009 was 20 percent, down slightly from 21 percent in 1990.

As expected, China has had a large change with manufacturing, mining and utilities increasing from only \$28.0 billion in 1970, 0.8 percent of the world, to \$1.48 trillion in 2009, 13.7 percent of the world total and the second largest country. Japan had \$1.16 trillion of output in 2009, 10.7 percent of the world total. Germany rounded out the top four in manufacturing, mining and utilities at \$0.56 trillion, 5.2 percent of the world total. The U.K., Italy, France and South Korea were the next four in a range from \$0.26-0.30 trillion. Over the 40 years, the total value of world manufacturing, mining and utilities in constant 2005 dollars almost tripled from \$3.7 trillion in 1970 to \$10.8 trillion in 2009. The entire industry grew; China did not grow at the expense of everyone else.

The U.S. leading share of world manufacturing remained firm over the last 20 years because the U.S. industry did not remain static. Professor Mark Perry of the University of Michigan at Flint writing in the Wall Street Journal earlier this year explained that today each U.S. factory worker is responsible for more than \$180,000 in output in constant 2005 dollars, triple the \$60,000 in 1972. Companies invested in productivity enhancing technology that allowed the U.S. to continue to lead the world in manufacturing and more than double the real dollar value of manufacturing while employing 7 million fewer workers than in the late 1970s. Professor Perry noted the transition was difficult for workers, but that "technological improvement is one of the main ingredients of economic growth. It means increasing wages and a higher standard of living for workers and consumers."

The information from Professor Perry is not new. In August 2007 the Cato Institute released *Thriving in a Global Economy: The Truth about U.S. Manufacturing and Trade* by Daniel J. Ikenson that addressed most of the same issues. Mr. Ikenson noted that for 2006 real U.S. manufacturing output reached an all-time high, real manufacturing revenues were at an all-time high, the value of U.S. manufacturing exports was at an all-time high and U.S. factories accounted for over a fifth of the world's manufacturing value added.

According to the Manufacturing Institute, U.S. manufacturing workers are twice as productive as workers in the next 10 leading manufacturing economies, increasing 103 percent from 1987 to 2008. Manufacturers perform two-thirds of all R&D in the U.S., driving more innovation than any other sector. The manufacturing portion of the U.S. economy, 11.5 percent of GDP in 2008, has been growing as fast as the total U.S. economy on a dollar basis for the past 60 years, even though prices for manufacturing products have grown more slowly than prices for other goods and services. The U.S. is the third largest exporter of manufactured goods after the EU-27 and China. If U.S. manufacturing industries were a country, they would rank as the ninth largest economy in the world.

That does not mean that manufacturers are having an easy time maintaining their number one position. According to research by the Manufacturing Institute, the National Association of Manufacturers and the Manufacturers Alliance/MAPI, U.S. manufacturers structural costs (corporate taxes, health care, regulatory compliance and litigations) result in a 17.6 percent disadvantage, down from 31.7 percent in 2006. Fast growing developing countries are increasing research and development at a more rapid rate, while U.S. federal funding for physical sciences is declining. The U.S. workforce is short in engineering training and math and science skills. Manufacturers are facing increasing competition on exports and imports.

Recent data indicate that markets remain challenging. The July U.S. manufacturing index from the Institute for Supply Management was at 50.9 percent, down from 55.3 percent in June, and the lowest since July 2009. A percentage above 50 means the industry is expanding. The new orders portion of the index, an indicator of future activity, was 49.2 percent. U.S. export orders were a bright spot with a 0.5 percent increase to 54.0 percent. A separate global index for manufacturing from J.P. Morgan Chase declined 1.7 percent in July to 50.6 percent, also a two-year low. Production slowed in both developed and developing countries.

While the U.S. manufacturing industry is competitive there is no indication the 5.8 million decline in employees from 2000 to 2010 will be reversed. As noted earlier increases in worker productivity have helped the industry remain competitive. To add workers, the rate of growth of output would need to exceed the growth in worker productivity, which is not expected to happen over the next few years.

The pending FTAs with South Korea, Colombia and Panama will provide manufacturers greater access to growing developing country markets. The agreements will lead to increasing imports and exports of manufactured products as U.S. companies continue to align with international supply chains. The best opportunity for the U.S. to continue its leadership in manufacturing is to continue to innovate to serve the needs of businesses and consumers in freer markets.

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