Manufacturing Compensation Costs and
Improved International Competitiveness
March 14, 2013

The decline in U.S. manufacturing employment since 2000 occurred despite a decline in U.S. compensation costs compared to costs in many of its trading partners.

In December 2012, the Bureau of Labor Statistics released estimates of hourly manufacturing compensation costs from 1997 to 2011 in the United States and 33 other countries (BLS News Release, "International Comparisons of Hourly Compensation Costs in Manufacturing," 2011.) Compensation in almost all the other countries increased relative to that in the United States. Not included among the countries analyzed is China, which emerged as a powerful global competitor over this period. Nevertheless, compared to almost all its other important trading partners, U.S. labor cost competitiveness improved.

This note summarizes key points of the BLS compensation data. It then comments on a separate BLS analysis of compensation costs in China. (Banister, Judith and George Cook, "China's employment and compensation costs in manufacturing through 2008," *Monthly Labor Review,* March 2011.)

Manufacturing compensation costs over time

The BLS has estimated manufacturing compensation costs for the United States and 33 other countries since the late 1990s. Missing from the list are China, India and Hong Kong, as well as major oil suppliers, Saudi Arabia and Venezuela. However, all the other countries ranking among the 15 largest exporters of goods to or importers of goods from the United States in 2012 are included. Among them are Canada (ranked 1 in total goods trade), Mexico (3), Japan (4), Germany (5), United Kingdom (6), South Korea (7), and Brazil (8).

In 1997, eight of the 33 countries had higher manufacturing compensation costs than the United States. All were in the northern portion of Western Europe. Switzerland, at 132 percent of the U.S. costs, was highest, followed by Germany (127 percent.) By 2001, largely because of an appreciating dollar, only one country, Switzerland, had higher manufacturing compensations costs; and these were only modestly higher, at 107 percent of U.S. costs. Over the next ten years, however, U.S. costs fell sharply relative to other countries. In 2011, 15 of 33 countries had higher compensation costs than the United States, and all but one country had seen their compensation costs increase relative to the United States.

Most of the countries with higher compensation costs than the United States in 2011 were in western Europe, but not all. Norway ranked highest with compensation costs 181 percent of those in the United States; other Scandinavian countries were also well above the United States. Switzerland had the second highest level of compensation at 170 percent. Germany stood at 133 percent. Ireland and Italy, both of which have faced severe economic and financial difficulties, had compensation levels about the United States - 112 percent for Ireland and 102 percent for Italy. But the group of higher wage countries also included three non-European nations: Australia (120 percent of the U.S.), Canada (103 percent) and Japan (101 percent).

Of course, some important trading partners have compensation levels much lower than those in the United States. Brazil's compensation was only a third that in the United States, Mexico's was less than 20 percent. Korea's compensation was just over 50 percent and Taiwan's just over a quarter. Most eastern European countries also have low compensation costs. However, even among this group, compensation costs have increased relative to the United States. The sole exception among the 33 countries is Taiwan, where compensation fell from 31 percent of the U.S. level in 1997 to 26 percent in 2011. The increase in compensation was also modest in Brazil and the United Kingdom (87 percent in 2011.)

Drivers of changes in compensation costs

Changes in compensation are driven by changes in compensation within individual countries and by changes in exchange rates.

The value of the U.S. dollar rose sharply against most currencies in the late 1990s, peaking in 2001. Depending upon the index used, the increase in the value of the dollar on a trade-weighted basis was in the range of 18 to 25 percent. The appreciating dollar raised the cost of U.S. products in global markets and effectively increased U.S. manufacturing compensation costs relative to those in most other countries. Since then, the value of the dollar has fallen steeply, except for a surge late in 2008, after the Lehman Brothers financial crisis. Again, depending upon the index, the decline in value from 2001 to 2011 was 25 to 33 percent. The cheaper dollar effectively reduced manufacturing compensation costs in the United States relative to those elsewhere and should have improved the international competitiveness of U.S. manufactured products.

Compensation costs were also affected by differences in rates of increase within individual countries. In the United States, manufacturing compensation costs increased at an annual rate of 3.1 percent over the period 1997 to 2011. Twenty-two countries had higher rates of compensation growth, as measured in their own currencies, while ten had lower rates of compensation growth. The highest rates of compensation growth were in countries with quite low levels of compensation internationally. Thus, Mexico and Brazil had compensation growth, in their own currencies, of 8 and 7 percent, respectively. Argentina had the highest rate of domestic compensation growth – 17 percent per year. Following an economic and financial crisis in 1999-2002, in which the foreign exchange value of the Argentine currency collapsed, domestic wages and prices rose very rapidly.

Countries with low rates of compensation growth tended to be ones with relatively high compensation internationally. Thus, compensation grew 2 percent per year in Germany and 1.4 percent in Switzerland. But some relatively high wage countries had quite rapid compensation growth; and, at the low end, Japan saw compensation increase only 0.5 percent per year, even though compensation is about on par with that in the United States. Japan suffered from mild deflation through much of this time period.

The bottom line is that the United States has seen its compensation costs decline relative to compensation in many countries through a combination of a depreciating U.S. dollar and comparatively low domestic (U.S.) compensation growth. In countries with much lower compensation costs, increases in domestic compensation costs was the dominant factor driving up costs, although appreciating currencies often contributed. Where currencies depreciated, the increase in domestic compensation costs tended to be larger. In a number of the higher wage countries, increases in the values of their currencies raised compensation costs relative to the United States, even when domestic compensation growth was moderate.

<u>China</u>

Although China is the United States' second largest trading partner and the second largest economy in the world, China was not included among the 33 countries for which BLS calculated manufacturing compensation costs because of the inadequate quality of its data. However, BLS performed a separate analysis of compensation costs of manufacturing employees in China and found they were about 4 percent of those in the United States in 2008. This is substantially lower than all of the 33 countries, with the exception of Philippines (5 percent in 2008).

Compensation has been growing rapidly in China, but from a very low level. From 2002 to 2008, hourly manufacturing compensation measured in yuan doubled. In addition, starting in the summer of 2005, China allowed a gradual appreciation of the yuan relative to the dollar; this raised compensation measured in U.S. dollars by roughly another 20 percent. However, in response to the financial and economic crisis and the resulting decline in world trade, China slowed the appreciation of the yuan; so the yuan rose only 6 percent between 2008 and 2011. If manufacturing compensation continued to grow internally in China at the same rate as before (12 percent per year from 2002 to 2008), the combination of domestic compensation growth and exchange appreciation would mean that compensation in China 2011 was just over $2.00 per hour, about the same as in the Philippines and 6 percent of compensation costs in the United States.

<u>Conclusion</u>

Over the past decade, manufacturing compensation costs in the United States have fallen relative to those in almost all its major trading partners. A number of its important partners, including Canada, Japan, Germany, France and the Netherlands, have costs that are the same as or higher than those in the United States. However, manufacturing compensation costs in China are far, far lower, despite rapid internal growth in compensation and some currency appreciation.