



# Focus on Prices and Spending



## Import and Export Prices: Third Quarter 2010

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### Current Price Topics

## The Impact of the European Debt Crisis on U.S. Import Prices

The fallout from the recent European debt crisis leads to questions about its impact on exchange rates and the U.S. economy.<sup>1</sup> On November 5, 2009, the newly elected Greek administration announced that Greece's budget deficit would be more than double what was expected.<sup>2</sup> This much larger budget estimate raised fears of Greek sovereign debt insolvency and sparked the beginning of the European debt crisis. The ensuing downgrades of Greece's debt and similar doubts regarding Spain and Portugal's solvency, which appeared during the first half of 2010, also contributed to the 18-percent decline in the value of the euro versus the U.S. dollar from November 2009 to June 2010.<sup>3</sup> An interesting question is, did this drop in the value of the euro have any impact on import prices to the United States from the European Union (EU)?

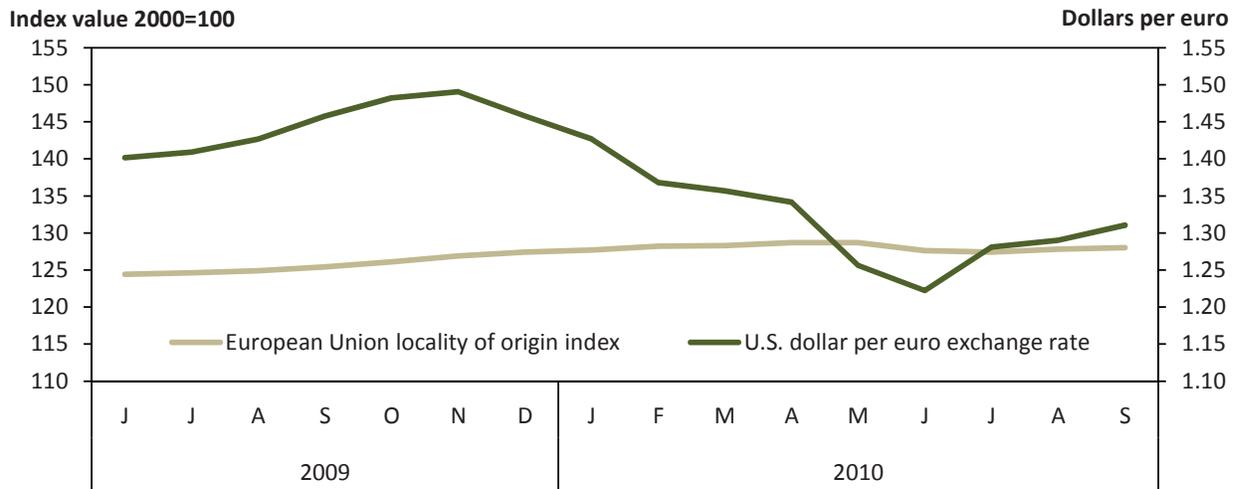
Historically, the movement of the euro against the U.S. dollar appears to affect the price of imported goods from the EU. The locality of origin (LOO) price index of imports from the EU published by the Bureau of Labor Statistics provides some evidence on the impact

of exchange rate changes. The euro was first introduced as an electronic currency in 1999 and remained relatively flat from that point until 2002. In 2002, banknotes and coinage were introduced and the euro began to appreciate in relation to the U.S. dollar. In response, import prices from Europe also increased. Conversely, subsequent dips in the euro's value tended to pull the import price index down.

From the onset of the European debt crisis that began with the Greek debt announcement in November 2009 to June 2010 when the value of the euro bottomed out versus the U.S. dollar, the euro depreciated 18-percent. However, chart 1 shows that import prices from the EU actually continued to rise slowly as the crisis began. There was a notable flattening between February and May 2010, and the index turned slightly downward in June 2010.

So why wasn't there a greater impact from the sharp drop in the value of the euro on import prices during the European debt crisis? One reason is that the impact on prices will depend, to some degree, on the perceived duration in the shift in exchange rates. Research has shown that as short-term fluctuations of the exchange rate occur, companies are more likely to pass through only a small percentage of the currency change into the prices of their goods in order

**Chart 1. European Union locality of origin index and U.S. dollar/euro exchange rate June 2009–September 2010**



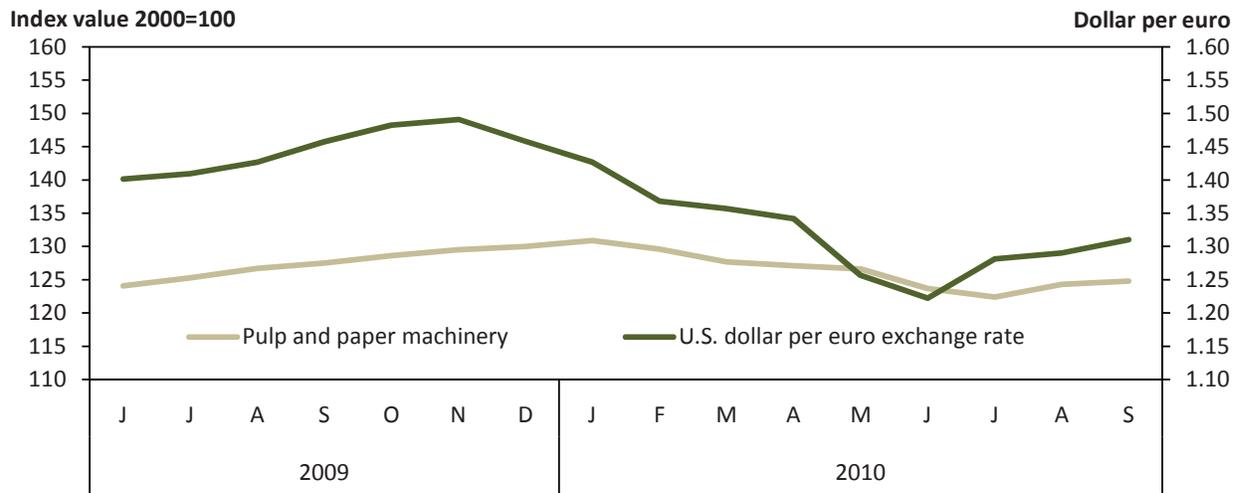
SOURCES: U.S. Bureau of Labor Statistics and dollar exchange rate from Federal Reserve Bank

to preserve market share. However, if the shift in the exchange rate is thought to be of a more permanent duration, a higher pass-through rate is likely.<sup>4</sup> Thus it is possible that as the euro rose and fell during the second half of 2009, European exporters did not foresee a permanent change in the exchange rate.

Another factor that can affect the short-term impact of a change in exchange rates is the percentage of goods that are priced in a foreign currency compared with the percentage priced in U.S. dollars. For goods priced in a foreign currency, the price has to be converted into U.S. dollar terms before the good is used in the calculation of indexes.<sup>5</sup> Because of this process, there is an immediate effect when there is a currency movement. For example, even if from one period to the next, the price of an item is unchanged in euro-denominated terms, if the euro appreciated 10 percent dur-

ing that period, then after currency conversion, the dollar-equivalent price of the item will also register a 10-percent increase. In contrast, for goods priced in U.S. dollars, there is no immediate direct change from converting the price into another currency. There may, however, be a lagged response if over time a company changes the U.S. dollar price. As the value of the euro falls, the amount European companies that price their exports in U.S. dollars receive for their items increases in euro terms; thus firms may lower the price of their exports to the United States in order to capture more market share.<sup>6</sup> Firms, however, take time to adapt their prices to currency movements, which can result in a short-term stability of prices. A recent study showed that the pass-through rate of currency appreciation or depreciation on the price of a good is only about 25 percent for items priced in U.S. dollars. On the other hand, if an item is priced

**Chart 2. Pulp and paper machinery index and U.S. dollar/euro exchange rate**



SOURCES: U.S. Bureau of Labor Statistics and dollar exchange rate from Federal Reserve Bank

in a foreign currency, the pass-through rate of an exchange rate change to the U.S. dollar price jumps to approximately 95 percent.<sup>7</sup>

The market basket for the price index of imports from the European Union is predominantly priced in dollars, with only about 14 percent priced in a foreign currency. Consequently, when looking at U.S. imports from Europe, regardless of the perceived duration of an exchange rate change, the tendency is for a change in the exchange rate to have a much greater impact on the European seller's price than the U.S. buyer's price. This may help explain why the drop in the value of the euro only had a comparatively small impact on the dollar price of imports from Europe in 2009 and 2010.

What would the impact have been if a greater percentage of import prices from the EU had

been priced in a foreign currency? Looking at the import price index for pulp and paper machinery provides some insight into that question. Pulp and paper machinery is primarily imported from Europe, and roughly 57 percent of the items in the index are priced in a foreign currency. If the recent analysis holds, the drop in the value of the euro should have a greater impact on this index. In chart 2, the correlation between prices and the exchange rate of the euro versus the U.S. dollar is indeed closer, with the index declining 6.5 percent from January 2010 to July 2010. This analysis raises an interesting point. If the U.S. dollar were to lose its traditional standing as a "world" currency, leading to more products being priced in foreign currency, then the impact on prices of a change in the value of the euro (or any other currency) versus the U.S. dollar might be greater over time. Recent discussions among OPEC countries to move

away from pricing in U.S. dollars, as well as China's recent questioning of the U.S. dollar as the world's reserve currency, have created an uncertain future for the pricing of U.S. imports.<sup>8</sup>



## Current Price Trends

### Quarterly Price Highlights

#### Import prices

Import prices ticked up 0.2 percent in the third quarter of 2010 following a 0.9-percent decline for the previous 3-month period. The price index for overall imports has risen only 0.9 percent since the beginning of the year after rising 8.6 percent in 2009. The increase from June to September was led by a 0.3-percent advance in nonfuel prices that more than offset a 0.4-percent drop in prices for fuel imports.

#### Fuel import prices

Fuel prices fell for the second consecutive quarter between June and September, declining 0.4 percent after a 6.3-percent drop for the quarter ended in June. Prices for fuel began the third quarter up, rising 1.0 percent and 1.7 percent, respectively, in July and August, but a 3.1-percent drop in September left the index down overall for the 3-month period. Approximately half of the decline for the third quarter resulted from a 0.2-percent decline in petroleum prices. Natural gas prices and coal prices fell more

sharply during the quarter, decreasing 2.7 percent and 6.5 percent, respectively.

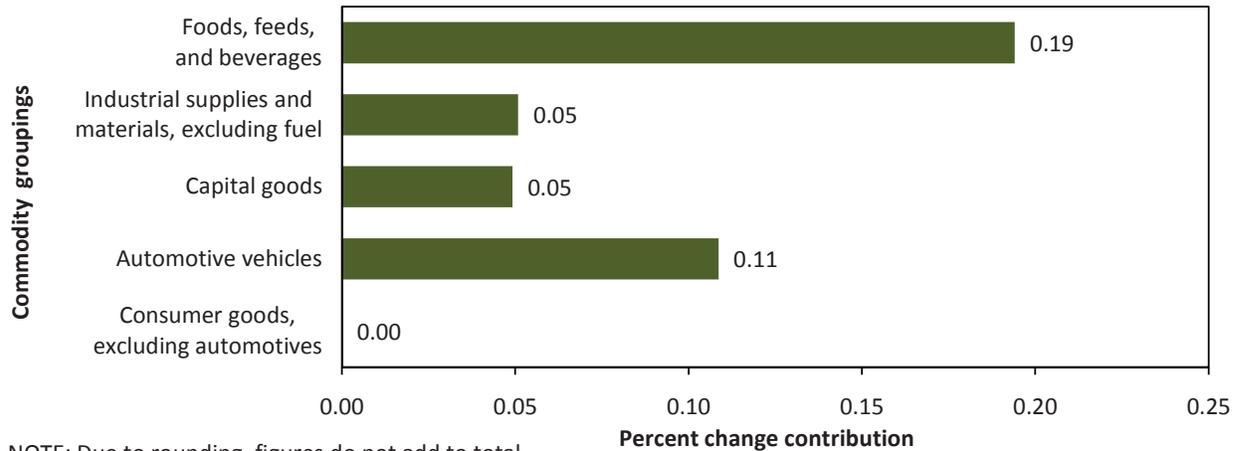
Petroleum prices rose in July and August partly as a result of a drop in the value of the U.S. dollar in June and July.<sup>9</sup> Petroleum prices turned down in September on concerns over demand and uncertainty in the market about the strength of the economic recovery in the United States and Europe. In addition, U.S. crude oil and petroleum product reserves hit their highest level since January 1983.<sup>10</sup> Even China, where oil demand increased 3.3 percent on a 12-month basis in July, has seen a slowing in demand as the Chinese government has taken actions to slow the rate of economic growth in China in recent months.<sup>11</sup>

#### Nonfuel import prices

In contrast to fuel prices, nonfuel prices rose 0.3 percent for the quarter ended in September, following 0.6-percent advances the previous two quarters. As shown in chart 3, higher foods, feeds, and beverages prices had the largest contribution to the overall advance in nonfuel prices. Rising prices for automotive vehicles, nonfuel industrial supplies and materials, and capital goods also factored into the increase in the price index for nonfuel imports. Prices for consumer goods were unchanged for the third quarter.

Prices for foods, feeds, and beverages advanced 3.2 percent in the third quarter, the largest quarterly increase since a 4.2-percent rise in the second quarter of 2008. The recent increase

**Chart 3. Major contributors to the 0.3-percent increase in the third quarter 2010 in import prices excluding fuel**



NOTE: Due to rounding, figures do not add to total.  
SOURCE: U.S. Bureau of Labor Statistics

was primarily driven by a 21.7-percent jump in coffee prices. Unfavorable weather in Brazil, Vietnam, and Columbia—the three largest producers—as well as pests and disease in the latter, have reduced the world supply of coffee. Opening stocks for the 2010–11 year on October 1 were at the lowest recorded historical level.<sup>12</sup> As seafood prices continued to be affected by the oil spill in the Gulf of Mexico earlier this year, higher prices for fish and shellfish, up 5.5 percent in the third quarter, also affected the overall foods, feeds, and beverages index.

Finished goods prices rose overall in the third quarter, led by a 0.7-percent increase in the price index for automotive vehicles. A 1.5-percent increase in parts prices was the largest contributor to higher automotive vehicles prices, which resulted, in part, from a weakening of the dollar and higher prices for copper and steel. The price indexes for capital goods and consumer goods each recorded little move-

ment for the quarter ended in September, as capital goods prices ticked up 0.1 percent and prices for consumer goods were unchanged.

Nonfuel industrial supplies and materials prices edged up 0.3 percent for the 3 months ended in September, after a 2.8-percent rise the previous quarter. A 1.4-percent increase in chemicals prices was partially offset by a 5.6-percent drop in prices for building materials. Unfinished metals prices, which were up 32.3 percent since December 2008, rose only 0.4 percent in the third quarter of 2010.

### Export prices

U.S. export prices increased 1.3 percent in the third quarter of 2010, following a 0.8-percent advance the previous quarter. Prices for U.S. exports have trended upward on a quarterly basis since edging down 0.3 percent the first quarter of 2009. The price indexes for agricul-

tural exports and nonagricultural exports each contributed to the overall increase in export prices for the quarter ended in September 2010, advancing 6.4 percent and 0.8 percent, respectively.

**Agricultural export prices**

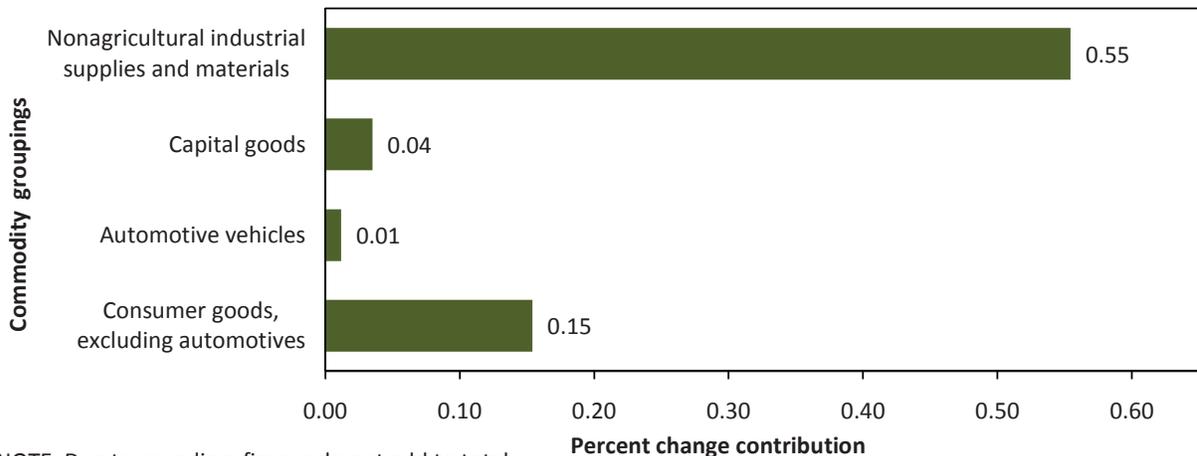
Agricultural prices advanced 6.4 percent in the third quarter of 2010, the result primarily of a 48.4-percent jump in wheat prices and a 20.8-percent advance in corn prices. Wheat prices rose as a result of a severe summer drought in Russia, Ukraine, and Kazakhstan. In fact, Russia, normally the world’s third largest wheat producer, started a ban on export shipments in August.<sup>13</sup> Corn prices rose, as U.S. production in 2010 now is expected to be lower than originally forecast and demand remains strong for animal feed and ethanol production.<sup>14</sup>

**Nonagricultural export prices**

Nonagricultural prices rose 0.8 percent between June and September after rising a similar 0.8-percent for the quarter ended in June. The increase was led by higher nonagricultural industrial supplies and materials prices. Rising consumer goods prices also contributed to the increase. (See chart 4.)

The price index for nonagricultural industrial supplies and materials increased 1.6 percent in the third quarter, after a 3.0-percent advance between March and June. The largest contributor to the third quarter rise was a 2.5-percent increase in metals prices, led by a 10.8-percent increase in copper prices. Increased demand from China coupled with tighter supplies, notably from Chile, has led to higher prices.<sup>15</sup>

**Chart 4. Major contributors to the 0.8-percent increase in the third quarter 2010 in export prices excluding agriculture**



NOTE: Due to rounding, figures do not add to total.  
 SOURCE: U.S. Bureau of Labor Statistics

Consumer goods prices rose 1.1 percent, the largest quarterly gain for the index since a 1.2-percent increase in June 2006. A 2.2-percent increase in the price index for medicinal, dental, and pharmaceutical products was a major factor in the advance. However, other finished goods categories recorded little movement. Automotive vehicle prices ticked

up 0.1 percent, while prices for capital goods were unchanged.



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## Notes

<sup>1</sup> See “Weak dollar seen as U.S. recovery route,” *The Washington Post*, Oct.19, 2010 and “Dollar’s Swoon Opens Doors,” *The Wall Street Journal*, Oct. 17, 2010.

<sup>2</sup> See, “Europe’s Debt Panic Brings Down Euro, Spurs Dollar Rally,” *Global Finance*, March 2010.

<sup>3</sup> See “Timeline – Euro Zone Debt Crisis,” *Reuters*, June 3, 2010.

<sup>4</sup> Kenneth A. Froot and Paul D. Klemperer, “Exchange Rate Pass-Through When Market Share Matters,” *The American Economic Review*, September 1989, pp. 637–54.

<sup>5</sup> The average exchange rate index that BLS uses to convert import prices for goods priced in a foreign currency into U.S. dollar terms is lagged 1 month. The BLS reference period for the MXP and LOO price indexes is the first of the month. Therefore, the exchange rate used for the currency conversion is the average exchange rate for the month prior to the reference period.

<sup>6</sup> Froot and Klemperer. “Exchange Rate Pass-Through When Market Share Matters,” September 1989, pp.637–54.

<sup>7</sup> Gita Gopinath and Oleg Itskhoki and Roberto Rigobon, “Currency Choice and Exchange Rate Pass-Through,” *The American Economic Review*, March 2010, pp. 304–36.

<sup>8</sup> See, “Is China Ready to Challenge the Dollar?” *Center for Strategic & International Studies*, October 2009.

<sup>9</sup> Petroleum is primarily priced in U.S. dollars, so a drop in the value of the dollar will makes petroleum cheaper in foreign currency terms, thus increasing demand. The opposite is true when the value of the U.S. dollar rises relative to other currencies.

<sup>10</sup> See “Oversupply fears return to oil market,” *The Wall Street Journal*, Sept. 20, 2010.

<sup>11</sup> Oil Market Report (International Energy Agency, 10, September, 2010). Also, for more information about the International Energy Agency, see <http://www.iea.org/about/index.asp>.

<sup>12</sup> *Letter from the Executive Director* (International Coffee Organization, September 2010). Also, for more information about the International Coffee Organization, see <http://www.ico.org/>.

<sup>13</sup> See “USDA cuts world wheat view, but says no repeat of ’08,” *Reuters*, Aug. 12, 2010.

<sup>14</sup> See “Corn prices surge to 2-year high on demand exceeding production,” *Bloomberg News*, Oct. 12, 2010.

<sup>15</sup> See “Copper market will get ‘tighter’, Codelco CEO says,” *Bloomberg News*, Oct. 12, 2010.