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Will U.S. Food Prices Follow Global Trends?

by Jason Henderson, Omaha Branch Executive

Driven by higher commodity prices, global food prices soared to record highs in 2011. World populations are paying record prices for cereals, sugars, meats and all other types of food products. Higher food prices are straining the household budgets of global consumers, especially in poorer nations where food spending can account for almost half of household expenditures.

World populations are experiencing some modest relief as global food prices have eased since peaking in February. On the other hand, U.S. food prices have climbed higher in recent months. Differences in world and U.S. food consumption patterns underlie the divergence between global and U.S. food prices. Americans eat more processed and prepared foods than global consumers, which reduces the influence of commodity prices on retail food costs.

This article examines global and U.S. food price trends. During the past year, the surge in agricultural commodity prices quickly translated into higher global food costs, larger contribution of wages to food production costs in the U.S. could limit fluctuations in U.S. food prices.

FOOD PRICES SURGE

After collapsing during the recent financial crisis and recession, agricultural commodity prices have

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especially for the world's poorer populations. Although commodity prices have driven recent global food price trends, the prevalent consumption of processed and prepared foods means that wages and labor markets more heavily influence U.S. food prices. As a result, even if commodity prices retreat from their historical highs, the rebounded sharply during the past year. The stronger global economy lifted global food demand, and adverse weather conditions clipped agricultural production as drought and floods occurred across the globe. In response to burgeoning demand and tight supplies, raw commodity prices for foodstuffs jumped 40 percent above year-ago levels and



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propelled global food prices to record highs, with the largest gains emerging in foreign countries.

During the past year, *global food prices* surged, echoing commodity price trends. After contracting in 2009, global food prices began to bounce back in 2010. By 2011, global food prices surged 30 percent above year-ago levels, surpassing the record highs set in 2008 (Chart 1).

Due to shrinking world crop inventories, the strongest global price gains emerged in crop-based foods. In 2010, global wheat and grain inventories plummeted to near record lows. In fact, by the time of the 2011 harvest, the world will have less than one month's supply of wheat and coarse grains. With dwindling supplies, crop prices surged and prices for cereals and oils jumped more than 40 percent above year-ago levels during the first half of 2011. Sugar prices also increased by a third as global supplies dropped to their lowest level in more than a decade.

In contrast, meat and dairy food prices rose a more modest 15 percent and 17 percent, respectively, above yearago levels. In 2010, a stronger economic recovery boosted global meat and dairy consumption. While robust demand lifted global livestock prices, stronger meat and dairy production limited global price increases.

In 2010, rising commodity prices also began to lift *U.S. food prices*,

Chart 1 Global Food Prices



although U.S. prices rose more slowly than global prices. After declining during the recession, U.S. food prices began to creep higher in 2010. By July 2011, U.S. food prices were 4 percent above year-ago levels, which still paled in comparison to the global price increase.

It appears that crop-based food prices are limiting U.S. food price inflation. In July 2011, U.S. meat prices remained almost 10 percent above year-ago levels, similar to global trends. In contrast, crop-based food prices have risen less rapidly than global increases. While U.S. crop inventories have fallen sharply, U.S. retail prices for cereal and bakery products rose a more moderate 4.3 percent above year-ago levels by July 2011, after contracting in 2010. Moreover, U.S. food prices have risen less rapidly than they did during the 2008 commodity price boom, when cereal and bakery products posted double-digit gains.

WHY ARE U.S. FOOD PRICE TRENDS DIFFERENT?

Weaker U.S. food price inflation seems to be driven by U.S. food consumption patterns. U.S. consumers eat more processed food at home and prepared foods at restaurants than global consumers. As a result, labor costs are a larger portion of U.S. food costs. Over the past year, sluggish wage growth in the U.S. has likely limited U.S. food price inflation.

In more affluent nations, people eat more processed and packaged foods. Globally, packaged foods account for more than half of the food



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expenditures in high-income nations, such as the United States, compared to less than a third in lower income nations (Regmit, Takeshima, and Unnevehr). With additional processing, commodity prices play a smaller role in the final retail food dollar. In fact, farm commodities account for roughly 15 percent of U.S. retail food costs today, down from 33 percent in the 1970s.

The importance of commodity costs varies by food type. In the United States, crop-based foods tend to be more processed, which reduces the impact of commodity prices on retail prices. According to the U.S. Department of Agriculture (USDA), only 7 percent of the U.S. retail price of cereal-based food is derived from the cost of farm-based commodities. In contrast, almost half of the retail price of U.S. beef products is derived from commodities.¹

At the same time, labor has emerged as the single largest cost for U.S. foods. Today, labor accounts for roughly half of the retail cost of U.S. food, up from less than a third in the 1970s (Canning). Labor is even more important for the costs of prepared foods consumed at restaurants. Over the past decade, labor costs accounted for almost 60 percent of the cost of food consumed away from home compared to less than half of the cost of food consumed at home (Canning).

As a larger factor in U.S. foods, labor appears to account for the slower U.S. food price inflation. In 2011,



wages in U.S. food manufacturing plants and restaurants rose 2 percent above year-ago levels, less than half the rate of wage growth prior to the recession. With sluggish wage growth, the price of food consumed away from home rose only 2.1 percent above year-ago levels in 2011, roughly half the rate in 2008 and well below the price gains for food consumed at home (Chart 2). Sluggish wage growth also limited food price inflation for cereals and bakery products, especially when compared to the double-digit gains during 2008 and the steep gains in today's global prices for cereals.

What is the Future Path of Food Price Inflation?

Due to the significance of labor costs, global and U.S. food

prices may follow different trends in the future. Global food prices will continue to be shaped more by future commodity prices, while U.S. food prices may be driven more by wages and economic growth. Even if commodity prices ease and trim global food prices, stable wages could temper the effect on U.S. food prices.

Agricultural commodity prices will continue to shape retail food prices, especially on a global scale. Futures markets and various public forecasts suggest that agricultural commodity prices are expected to remain high through 2012², which will keep global food prices elevated. In the first half of 2011, crop prices fluctuated widely but remained elevated. Yet, commodity prices are not expected to rise



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further, suggesting that the inflationary implications for food prices could be transitory. In fact, various forecasts suggest that commodity prices could dip in 2012, before dropping more sharply in 2013.³

If commodity prices are near their apex, global food prices may have also peaked. In fact, global food prices appear to have reached a plateau. After peaking in February 2011, global food prices remain high but have eased slightly. With tight global supplies and hearty global food demand, the Food and Agricultural Organization of the United Nations expects food prices to fluctuate at a high level in the near future.⁴

In contrast, given the significance of labor costs on U.S. food prices, modest wage gains could lead U.S. food prices to rise at a modest pace.⁵ After falling during the recession, employment and wages at food manufacturing and food service firms have rebounded, rising roughly 2 percent over the past year. Still, these wage gains are half the gains prior to the recession when wages at restaurants rose more than 4 percent annually. In contrast to 2008, modest wage gains in the food sector could limit U.S. food price inflation. For example, U.S. food price inflation is expected to slow in 2012 and range between 2.5 percent and 3.5 percent, roughly half the rise in 2008 when wages rose sharply (Table 1).

Table 1 U.S. Food Price Inflation (Annual Percent Change)

	2008	2009	2010	2011 Forecast	2012 Forecast
All Food	5.5	1.8	0.8	3.0 to 4.0	2.5 to 3.5
Food away from home	4.4	3.5	1.3	3.0 to 4.0	2.0 to 3.0
Food at home	6.4	0.5	0.3	3.5 to 4.5	3.0 to 4.0
Meat, Poultry & Fish	4.2	0.5	1.9	5.0 to 6.0	4.5 to 5.5
Dairy	8	-6.4	1.1	5.0 to 6.0	3.0 to 4.0
Fats and oils	13.8	2.3	-0.3	6.5 to 7.5	4.5 to 5.5
Fruits and Vegetables	6.2	-2.1	0.2	3.5 to 4.5	2.0 to 3.0
Sugars and sweets	5.5	5.6	2.2	2.5 to 3.5	2.0 to 3.0
Cereals and bakery products	10.2	3.2	-0.8	3.5 to 4.5	2.5 to 3.5

Source: U.S. Department of Agriculture

Today's sluggish wage growth also suggests that prices for prepared and processed foods could rise more slowly than prices for foods consumed at home. In fact, USDA forecasts that the price of food consumed away from home will rise between 2 percent and 3 percent in 2012, while at-home food prices are expected to jump between 3 percent and 4 percent (Table 1). In addition, retail prices for processed cereals and bakery products are expected to rise more slowly than the prices of commodity-based meat and dairy products.

In sum, fueled by a global economic rebound and tight food supplies, global food prices have soared along with agricultural commodity prices. Higher food costs placed a heavier burden on poorer populations, both in the United States and across the globe (Box 1). Fortunately, the steep ascent in global commodity prices has tapered, trimming global food prices.

U.S. food prices, however, are continuing to rise. Labor costs are a larger component of U.S. food expenditures as U.S. consumers eat more processed and prepared foods than households worldwide. National labor markets softened during the summer of 2011, limiting wage gains in the U.S. food sector. Even if commodity prices fluctuate at elevated levels, modest wage growth will likely temper any shifts in U.S. food prices.



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Box 1: The Burden of Higher Food Prices

The world's poor faced the greatest burden from higher food prices. In developing nations, like those in the Middle East, more than 40 percent of average household budgets go toward food purchases (Chart A1). Even in the emerging BRIC countries of Brazil, Russia, India and China, between a quarter and a third of household income is spent on food. In more affluent nations, like the United States, the average household spends less than 10 percent of its household budget on food.

Even in the U.S., low-income households are more affected by higher food prices than highincome households. Lower-income households spend a larger portion of their incomes on food. According to Bureau of Labor Statistics (BLS) data, the poorest 20 percent of U.S. households had an average annual income of \$9,900 in 2009 and spent over a third of that income on food (Chart A2). In contrast, the richest 20 percent of U.S. households had an average annual income of more than \$150,000 and spent less than 7 percent of it on food.

Low-income households in the United States also struggle more with higher food prices because they spend more money on food

Chart A1: Food Expenditures by Country



Source: U.S. Department of Agriculture

Chart A2: U.S. Household Food Expenditures by 2009 Income Levels



Note: data in parenthesis is the average household income of the quintiles



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Box 1 continued

consumed at home. During the recent commodity price booms of 2008 and 2011, prices of food athome rose more sharply than food consumed away from home. In 2009, U.S. households with the lowest level of income spent almost three-quarters of their food budgets on food at home, while high-income households spent roughly half of their food budgets on food at home.

Finally, low-income populations have less flexibility than higher-income households to alter their food consumption patterns, which increases the stress of higher food prices on their household budgets. When

Endnotes

- ¹Farm to retail price spreads are available at *www.ers.usda.gov/ Data/FarmToConsumer/pricespreads.htm*
- ²USDA monthly projections for the price of corn, soybeans, and wheat based on futures markets suggest the crop prices will remain high through the 2011/2012 crop year.
- ³Long-term forecasts of U.S. agricultural production, prices and profits are available at the U.S. Dept. of Agriculture http://www.ers.usda.gov/briefing/baseline/ and the Food and Agricultural Policy Research Institute, http://www.fapri. missouri.edu/outreach/publications/2011/FAPRI_MU_ Report_02_11.pdf.
- ⁴For additional information on the 2011/2012 outlook for global food prices, see the FAO's, Food Outlook, *http://www. fao.org/docrep/014/al978e/al978e00.pdf*
- ⁵For additional information on the U.S. food marketing bill see Canning.

food prices rise, consumers buy cheaper foods, often by eating at less-expensive restaurants and purchasing more food at grocery stores to eat at home. Since low-income populations already spend most of their food budget on at-home food consumption, it is more difficult for them to make changes and avoid paying higher food prices. When food prices rose sharply in 2008, U.S. households with the lowest level of income spent 15 percent more on food than they did in 2007. In contrast, U.S. households with the highest level of income spent only 5 percent more on food as they shifted their spending from restaurants to home-cooked meals.

References

- Canning, Patrick. 2011. "A Revised and Expanded Food Dollar Series: a Better Understanding of Our Food Costs." Economic Research Service Report Number 114, Economic Research Service, U.S. Dept. of Agriculture, February. http:// www.ers.usda.gov/Publications/ERR114/ERR114.pdf
- Ferreira, Francisco H.G., Anna Fruettero, Phillippe Leite, and Leonardo Lucchetti. 2011. "Rising Food Prices and Household Welfare" World Bank, Policy Research Working Paper 5652.
- "Food for Thought", Bureau of Labor Statistics, November 2010 www.bls.gov/spotlight/2010/food/pdf/food.pdf
- Regmit, Anita, Hiroyuki Takeshima, and Laurian Unnevehr. 2008. "Convergence in Global Food Demand and Delivery," Economic Research Report Number 56, Economic Research Service, U.S. Dept. of Agriculture, March. *www.ers.usda.gov/ Publications/ERR56/ERR56.pdf.*