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How hard will agricultural commodities hit developed economy consumers?

Chief economist's comment

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- War has led to sharp increases in agricultural commodity prices. Russia and Ukraine produce about 14% of the world's wheat, for instance, and markets are concerned about the threat of wartime disruption.
- In developed economies agricultural commodity prices are a very small part of consumer food prices — barely 20% in the case of the US. Labor costs are far more important.
- Nonetheless, developed economy consumer prices for food will rise. Consumers think food is far more important to their household spending than it actually is. That exaggerated view will encourage efficiency —shifting to food at home (rather than restaurants), and trying to reduce food waste.
- Because food is a necessity, higher food prices will lead to changing developed economy consumption patterns. More money spent on food, within a constrained budget, means less money to spend on other goods (or services). The goods demand slowdown is likely to be modest, but it comes at a time when global goods supply is at a record high.

Agricultural commodities keep rising in price

CRB Food commodity price index

Source: Bloomberg. Data to 2 March 2022

The war in Ukraine has brought with it a rise in agricultural commodity prices. For instance, in 2020 the Ukraine grew around 3% of the world's wheat, with Russia another 11%. For a global market already dealing with the effects of climate change on agricultural production, the threat of wartime disruption has pushed up futures prices. Wheat futures have risen 37% this year.

The economic impact of higher agricultural commodity prices (and potentially reduced supply) is not as straightforward as investors might think. Consumer prices will change, but in developed economies the extent depends on other factors. Changing consumer prices will change demand patterns. For some sectors of a developed economy the rise in agricultural commodity prices may turn out to be a demand deflation shock.

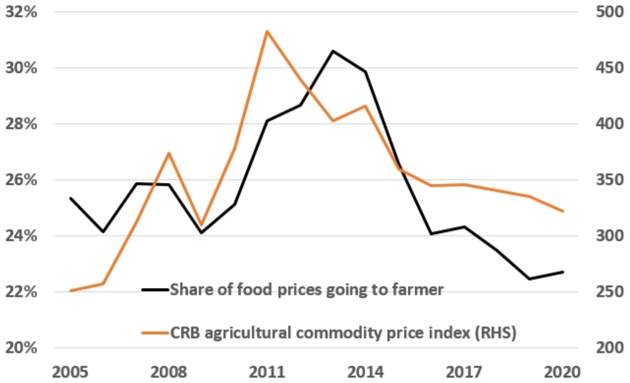
Food isn't food

In developed economies, agricultural commodity prices are a relatively unimportant part of the consumer price for food. Wheat is a small part of the price of bread. Milk is a small part of the price of milk. The food that developed economy consumers buy these days is processed, packaged, advertised and distributed before they ever click the "buy" button in their online supermarket. That means consumer food prices are overwhelmingly about labor.

In the United States, the farmer gets a little more than 20% of what a consumer spends on food. This is relatively easy to calculate. The output of domestic farms, adding food imports and subtracting food exports gives the value of agricultural commodities sold in the US economy. Spending by consumers on food and beverages at home and in restaurants, etc. gives the spending number at the end of the food food-chain.

About a fifth of US consumer spending on food goes to farmers

Share of US consumer spending on food going to farmers, and agricultural commodity prices



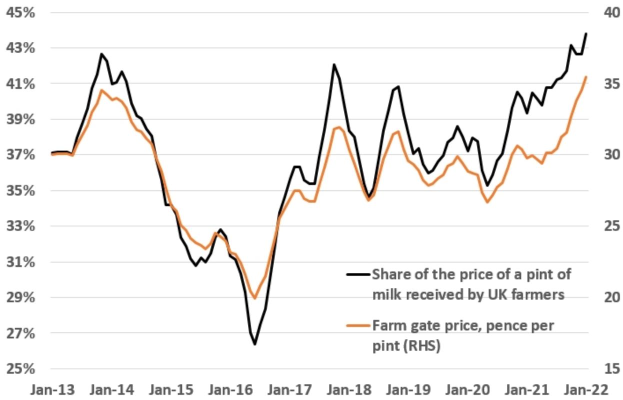
Source: US Bureau of Economic Analysis, Haver. Note that the share going to farmers is slightly overstated, as the calculation also includes the output of forestry. Removing forestry would recalibrate the farmers' share of consumer spending on food to approximately 20% in 2020.

Almost 80% of what the consumer pays for food is domestic labor costs (and, of course, profit margins along the supply chain). When agricultural commodity prices rise farmers do tend to get a slightly higher share of consumer spending —that is because either labor costs are constrained or profit margins are squeezed, and the consumer does not necessarily feel the full force of agricultural commodity price increases.

A clear example of the division between developed economy consumer and farmer is the price of milk. The milk that a consumer buys is more like the commodity that leaves the farm than any other foodstuff. And yet in the UK farmers normally receive less than half of what the consumer pays for a pint of milk. The UK buyer of a single pint of milk typically gives between 30% and 40% of the price that they pay to the farmer.

Even milk is not milk

Share of the UK price of a pint of milk received by a farmer, and the farm gate milk price



Source: UK ONS, Agriculture and Horticulture Development Board, UBS. The farmer does receive a higher share of milk sold in larger quantities because the consumer price per pint of a four-pint bottle of milk is less than the price per pint of a single-pint bottle.

Again, when the commodity price rises, farmers tend to get a slightly higher share of the consumer price, but farmers are still receiving less than half what the consumer pays.

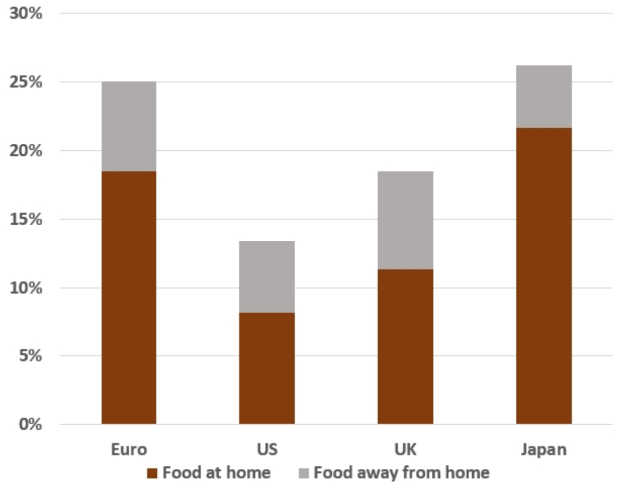
The developed market position differs from emerging markets, as the less developed the economy, the less likely it is that food is processed before reaching the consumer. That increases the importance of agricultural prices to the consumer, although the farmer is still likely to receive less than half of what the consumer pays for food. The price effect in emerging markets may be mitigated by subsidies, which transfer the economic cost from the consumer to fiscal policy, and thus mute the effect of higher food prices to households.

Changing food consumption

Even if developed economy consumer food prices are only partially affected by high agricultural commodity prices, consumers will probably change their behavior as consumer food prices increase. Food is a high frequency purchase, and as such it has a disproportionate impact on consumer inflation perceptions. The weighting of food in the consumer price basket varies significantly, even between developed economies. The range is between 13% and around 25% in consumer price inflation baskets of most advanced economies, but consumers tend to believe the importance of food to inflation to be a lot higher than that. The problem is that every time a consumer does their online food shopping or visits a supermarket, they are confronted with the price of food—and so they think that it matters more than it does. (In emerging markets, food is a higher weighting of the consumer price basket—over 40% in Thailand or over 30% in Mexico, for instance).

Importance of food to inflation varies

Share of consumer price inflation attributed to food (and alcohol)



Source: Haver, UBS

One response to higher consumer food prices is typically to shift from food away from home to food consumed at home. This reduces the amount of the household budget that is spent on food. Catered food is more labor- and energy-intensive than home-cooked food, as a rule, which means the cost per calorie is higher. A hamburger made at home is cheaper than a hamburger made in a takeaway, which in turn is cheaper than a hamburger served in a restaurant. Spending less on meals out and spending more on meals at home reduces the total costs associated with consuming calories, offsetting some of the effect of higher prices.

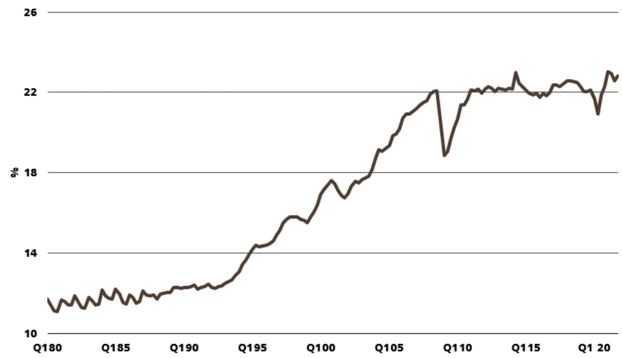
An additional efficiency move is to try to reduce food waste. Estimates vary depending on the metrics used, but roughly a third of all food grown on the planet is never consumed because of waste. Higher consumer food prices are an incentive to reduce waste at two points on the supply chain. Food retailers may be more inclined to sell fresh produce that previously did not conform to aesthetic standards (misshapen vegetables suddenly find a market). Consumers, who are oversensitive to the amount that they spend on food, may start to plan consumption more carefully in order to reduce food waste from the household. Going to a supermarket (or online equivalent) with a prepared shopping list and a determination to resist impulse purchases can help to cut household spending on food.

Cutting back on other things

Higher food prices may change broader developed economy consumption patterns. Consumers have a finite budget that they can spend. Last year, in developed economies, that budget was increased by the forced savings from earlier in the pandemic, which allowed consumers to spend more money. Most of the additional spending went on consumer durable goods. Already that durable goods demand momentum was fading as consumers (especially lower income consumers) had exhausted their savings stockpile after going on a spending binge in 2021. Once the money from the windfall of pandemic savings has been spent, developed economy consumers have to come back to the reality of living within a normal household budget. Higher food prices may force a reallocation of how that budget is spent. Put simply, more money spent on food (and fuel) means less money to spend on other things.

Global trade in goods hits a record high

Real global mercantile trade as a share of real global GDP

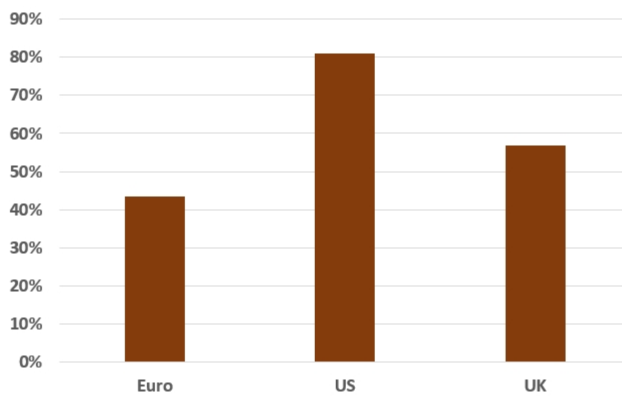


Source: Oxford Economic Forecasting, UBS

This may be more important than normal at the moment. Global supply of goods hit a record high last year. The volume of global trade as a share of GDP was an all-time high. Even before the war and commodity price shifts, the growth in developed economy demand for goods was expected to slow in 2022; it was still expected to be positive growth. If the consumer is now diverting money away from spending on manufactured goods and towards spending on food and fuel, growth in demand for goods is likely to be even slower.

Food matters more than durables

Durable goods spending as a % food spending (inc. restaurants) average 2011-2020



Source: Haver, UBS

Globally, food spending is a more important part of household budgets than is durable goods spending—even in the US where the cult of the car gives durable goods spending an additional boost. A food price increase could be met by increasing the household budget (reducing the savings rate or raising income through wage growth or working longer hours), but if that cannot be achieved durable goods may have a demand drop.

The supply demand imbalance in goods markets in 2021 was caused by exceptional developed economy demand overwhelming the global increase in supply—with the result that prices rose. This year the imbalance may reverse if demand switching combined with the natural normalization of demand creates an excess supply for some durable goods —with the logical implication for those goods' prices.

Vigilance rather than panic

The war in Ukraine is most likely to be felt in the global economy through the channel of commodity prices. It is important that investors keep the rise in commodity prices in perspective. For developed economies, agricultural commodity costs are about a fifth of the overall consumer price for food. Part of the cost increase can be offset with efficiency of consumption. However, at a time of record goods supply increased food prices may disrupt goods demand. Thus while food prices are likely to experience higher inflation, the commodity price moves may encourage disinflation or deflation for some non-food goods as demand wanes.

Appendix

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