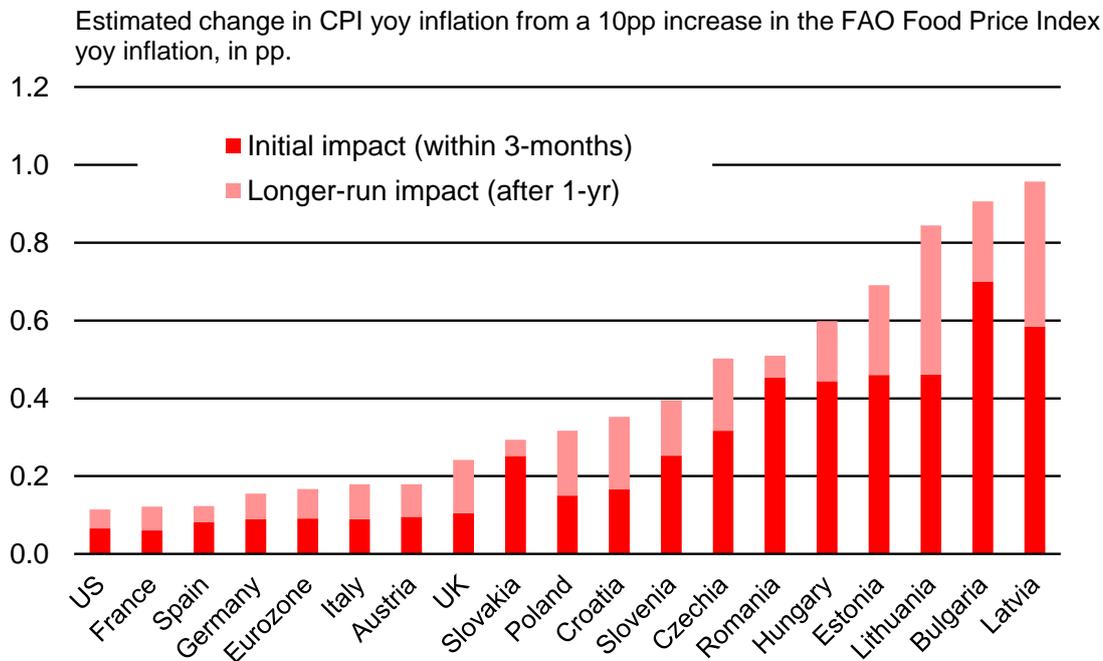


The differing impact of surging food commodity prices on CPI inflation



Source: BLS, Eurostat, ONS, UN FAO, UniCredit Research

- The Russia-Ukraine crisis has led to a sharp rise in global commodity prices, particularly for energy and food. On average in March, futures prices were up 46% for wheat, 23% for corn, and 20% for soybean compared to January averages.
- Our *Chart of the Week* shows our model-based estimates of the impact of a 10pp rise in the UN Food and Agricultural Organization’s (FAO) benchmark index of food commodity price inflation on all-item CPI inflation in the near term (within 3 months) and in the longer run (after one year) for the US and Europe. We estimate that CPI year-on-year inflation would rise by 0.1pp in the US, around 0.2pp in the eurozone, and about 0.6pp in EU-CEE11¹ after one year. At the extreme, for Latvia the impact is almost 1pp.
- There are two main channels through which food commodity prices influence all-item CPI inflation.² First, via the weighting of food in the CPI basket, which is lower for developed countries (8% in the US, 15% in the eurozone) than in EU-CEE11 (20% on average). Second, via the pass-through from food commodity prices to CPI food prices, which tends to be lower in developed economies than in emerging markets.³ It reflects that the costs of food processing, transportation, packaging and marketing make up a much larger proportion of retail food prices in developed economies than emerging economies. Consequently, the surge in food commodity prices will weigh more heavily on EU-CEE11, and emerging markets more generally, than developed markets.

¹EU-CEE11 includes Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

²Our estimates only account for the direct effect of a rise in food commodity price inflation on all-item CPI inflation via the CPI food index. The CPI for food services (e.g., restaurants) will also likely be affected by food commodity prices, although less so than the CPI food index. There may be second-round effects too, via wage and price expectations. For these reasons, our estimates may be seen as lower bounds for the full impact of a change in food commodity price inflation on all-item CPI inflation.

³We estimate the pass-through from food commodity price inflation to CPI food price inflation using a simple regression for each economy. The dependent variable is CPI food inflation in % yoy. The key explanatory variable is the UN FAO Food Price Index inflation, in % yoy, which is a benchmark index of food commodity prices that includes cereals, seed oils, meat, dairy and sugar. It enters the regression both contemporaneously and lagged by one year to capture that pass-through may take some time. The “longer-run” pass-through is computed as the sum of the estimated coefficients on the contemporaneous and lagged one year UN FAO Food Price Index inflation. We also include two control variables: **1.** Brent oil prices, in % yoy, both contemporaneous and lagged one year, since oil prices affect retail food prices via transport costs and may be correlated with food commodity price inflation; and **2.** The exchange rate of the local currency to the US dollar, in % yoy, both contemporaneous and lagged one year, since food commodity prices are quoted in US dollars. The estimation sample is quarterly from 1Q01 until 4Q21.

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