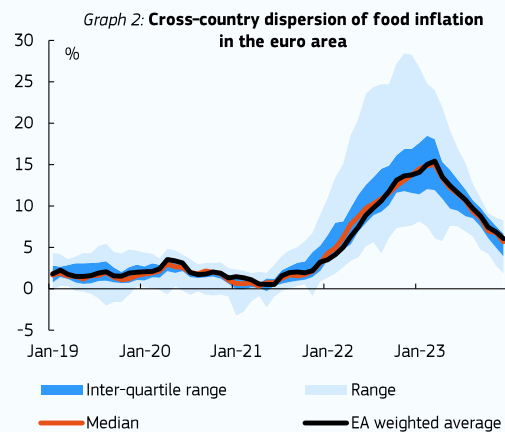
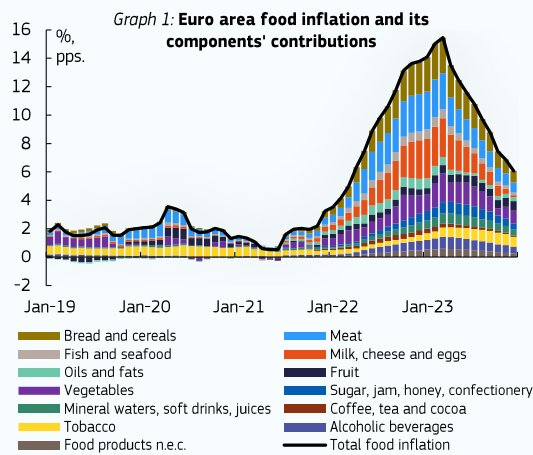


Box 1.4: Food inflation in the euro area – what were the driving forces behind the extraordinary surge in 2022-2023?

Food inflation accelerated to unprecedented levels in the euro area in 2022-23, peaking at 15.5% in March 2023. Following energy, the contribution of food inflation to headline inflation was the second highest in this period, reaching 3.1 pps. in February-March 2023. This has raised concerns as food is an important item of households’ consumption baskets, most notably for low-income households. Since March 2023, food inflation has been falling rapidly, though it is still high on year-on-year terms (6.1% in December 2023).

The surge in food inflation was broad-based across food items, both processed and unprocessed. In terms of year-on-year inflation rates, only tobacco, alcoholic beverages and fruits stayed below headline inflation during the spike. However, it must be noted that tobacco and alcohol are subject to high levels of excise taxation which dampens the effect of changes in input prices⁽¹⁾. Bread and cereals, meat, milk, cheese and eggs, and vegetables are the items that contributed most to the recent spike in food inflation (Graph 1). This is partly due to their relatively high shares in the overall consumption basket.



Various factors have driven the increase in food inflation, including global commodity price movements due to supply bottlenecks and the energy price shock, but also weather conditions. Input prices, such as those of energy and food commodities and of fertilisers, have been on the rise since early 2021. Climate change and extreme weather events, in particular droughts and floods, have also affected agricultural production, contributing to the surge in food commodity prices. While commodity prices have shown a sizeable correction recently, they are still at elevated levels. Moreover, profit and wages in both the food manufacturing and distribution sectors have picked up in the last two years, further driving up consumer prices.

The dispersion of food inflation among euro area countries has reached unprecedented levels, with some countries experiencing a cumulative food price increase of around 32-42% in the past two years (Graph 2). In addition, countries with the highest food price shocks, such as the Baltics, Slovakia and Croatia, also tend to have the highest share of food in the overall consumption basket. This worsens the impact of the price shock on the cost of living of these countries. Several factors could explain why these five countries experienced higher food inflation. These include: i) a higher exposure to the energy price shock; ii) lower absolute price levels due to a lower share of non-commodity costs (such as wages), which imply a higher relative price increase in response to an external commodity shock; iii) a past history of medium-to-high inflation, which could imply a higher sensitivity to external inflation shocks. In addition, the value-added deflator of the distribution sector – which is an

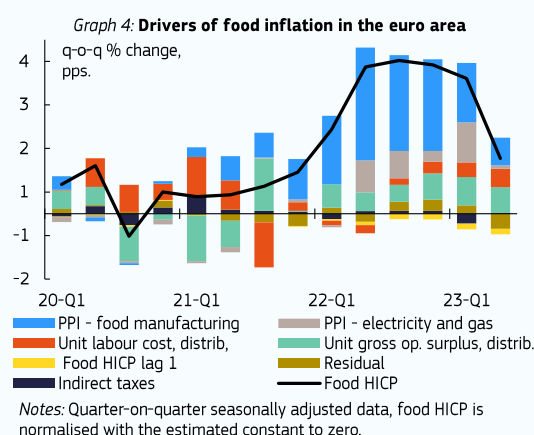
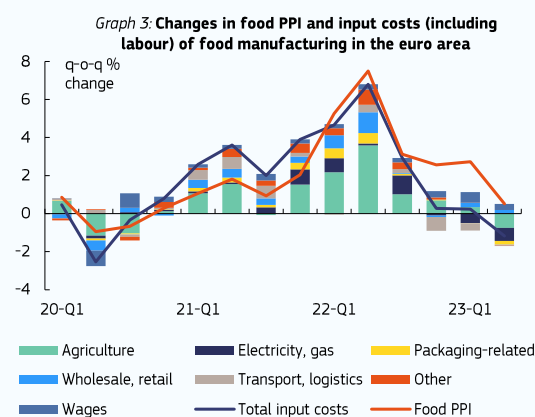
⁽¹⁾ Alcoholic beverages and tobacco are included in the special aggregate of food, alcohol and tobacco in the Eurostat classification, which is usually referred to as food inflation.

(Continued on the next page)

Box (continued)

important driver of food consumer prices – increased much more strongly (up to 3.5 times faster) in these countries than the average of the euro area.

The food manufacturing sector saw major input price increases led by agricultural produce, energy, distribution and packaging costs. This can be seen by combining an input-output table analysis with input price indices for the food manufacturing industry, which allows examining the drivers of the input price increases and the extent to which they explain the evolution of the output price of the sector (Graph 3). This shows that the food manufacturing sector saw its input costs increasing faster than its output prices up until the end of 2021, which implied a worsening of profit margins of food producers over that period. Profit margins started to recover as of the beginning of 2022 as input prices fell more sharply than output prices. This indicates that current profits are probably compensating for losses in profitability sustained in the period 2020–2021. As these price pressures eased and some even turned negative in 2023, overall input prices also fell despite a moderate pickup in wages.



Econometric analysis shows that food manufacturing PPI and the value-added deflator of the distribution sector⁽²⁾ (decomposed into unit labour cost and unit gross operating surplus) are the most important drivers of consumer food inflation (measured by the HICP) in the euro area. Electricity and gas PPI also have a small but significant impact, most likely through the energy use of the distribution sector. Agricultural products and food imports do not show significant coefficient estimates, indicating their lower importance in final consumer prices once the other factors – in particular food PPI – are controlled for. A historical decomposition using the estimated coefficients (Graph 4) shows that the main driver of the pick-up in food HICP inflation in 2022 was the food manufacturing PPI. Due to the size of the energy price shock, there was also a substantial impact of electricity and gas inflation on food inflation that year. The unit gross operating surplus of the distribution sector also contributed significantly to food inflation in 2022–23, while unit labour costs started to play an increasing role as of the end of 2022.

As the past shocks were priced in and passed through the entire food value chain, food inflation started falling quickly in 2023. In the absence of renewed pressures on input prices and if wages and profits stay in line with price stability, disinflation should continue, and food inflation should return to historically observed low levels. However, climate change-induced weather volatility, a worsening of the geopolitical situation, potential disruptions in global commodity markets, or excessive growth in wages or profits could pose challenges to food inflation in the future.

⁽²⁾ The distribution sector is approximated with NACE sectors G-I, i.e. wholesale and retail trade, transport, accommodation and food services, for which data is available in the sectoral national accounts. This is wider than food distribution, so caution is necessary when interpreting the results.