

## Will inflation come down? The key trends for 2023

The saying goes that better the devil you know than the devil you don't, but perhaps inflation is a special case. An old acquaintance of economists, it did not present figures like those of 2022 since the beginning of the 1980s. In other words, up until 2021 around 45% of the European population had never lived with such high inflation, and just 30% had seen it in adulthood. In fact, in the last decade inflation gave cause for concern due to its weakness. However, following the pandemic and the invasion of Ukraine, inflation has quickly made up for the lost ground: whereas in late 2019 the euro area price index (HICP) was 7% lower than it should have been based on the target inflation of 2%,<sup>1</sup> the sharp rally in prices since then has caused the HICP to virtually close this gap entirely by the end of 2022. What will happen in 2023?

### The Big Bang of inflation

The forces that triggered inflation to rise are global, somewhat unpredictable and exogenous. Above all, the pandemic caused significant imbalances between supply and demand by generating disruptions in global supply chains, blocking the consumption of services and redirecting much of the demand towards goods. Thus, bottlenecks emerged and inflation began to pick up, driven by goods, a rise in food prices and a rebound effect in energy prices (which had initially plummeted with the outbreak of the pandemic). Later, the lifting of restrictions also led to higher prices in services, as their activity normalised.

The mismatches between supply and demand that were caused by the pandemic ought to have a temporary effect on inflation and, in the absence of second-round effects, dissipate as economies normalise. In fact, the bottlenecks have been gradually clearing and, according to various indicators, since the autumn of 2022 they have been relatively limited and will help to curb inflation in 2023, although it is difficult to specify at what speed (transmission between bottlenecks and consumer prices occurred rapidly in 2021, but the historical evidence suggests that there may be lags of up to a year).<sup>2</sup>

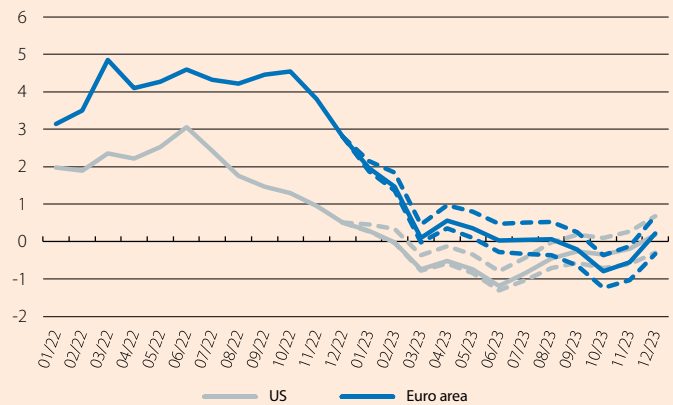
Before this normalisation could materialise, the invasion of Ukraine added more fuel to inflation, exerting unprecedented pressure on energy prices and accentuating the rise in food prices.<sup>3</sup> The price movements have been so abrupt (energy surged by over 40% year-on-year in the major advanced economies) that, through its pressure on production costs, the rise in energy prices has passed-through to many components of the consumer index: for instance, in the euro area it is estimated that the «energy-sensitive» components have added more than 2 pps to the inflation of services and around 3 pps to that of goods (approximately 50% of the observed inflation in both cases).<sup>4</sup>

All in all, the virulence of 2022 will, almost mechanically, have a downward effect on 2023. On the one hand, it should be taken into account that in 2022 as a whole, oil and gas – two of the major determinants of energy prices – surged by 60% (Brent) and 180% (TTF). A repeat of these figures in 2023 would result in extreme prices: oil at 130 dollars and gas at €320/MWh. But the dynamics of recent months have been the opposite: prices have stabilised and the forecasts (both those of analysts and market futures) suggest they will remain below those of 2022. Thus, in the absence of extreme scenarios, the significant, direct and positive contribution from energy should be rapidly diluted (see first chart).<sup>5</sup> On the other hand, food is being affected by second-round effects (the rise in the price of food itself, energy and other inputs) and the projections do not point to a moderation until mid-to-late 2023.<sup>6</sup>

Finally, both the pandemic and the Russian invasion triggered the implementation of fiscal support measures to cushion the impact of the crises on household incomes. During the pandemic, the measures were particularly substantial in the US, and it is estimated that they contributed significantly to the rise in inflation.<sup>7</sup> In Europe, meanwhile, the support measures in response to the energy

### Energy: contribution to headline inflation

(pps)



**Notes:** From January 2023 onwards, the solid lines show the estimated contribution of the energy component according to our oil and gas price forecasts. The dashed lines correspond to a more severe scenario (the upper line, with gas prices similar to those of October 2022 and oil accelerating to 110 dollars) and a more favourable scenario (the lower line, with gas prices according to the futures of January 2023 and oil at around 75 dollars).

**Source:** CaixaBank Research, own estimates based on data from Eurostat, the Bureau of Labor Statistics and Bloomberg.

1. i.e. If prices had grown by 2% per year since the beginning of 2013 (which was when the sustained weakness in inflation began).

2. See O. Celasun *et al.* (2022). «Supply Bottlenecks: Where, Why, How Much, and What Next?». International Monetary Fund. In fact, production prices (excluding energy and food) are still not showing any signs of a sharp slowdown.

3. Russia and Ukraine are major producers of food, such as wheat, barley and corn. See the Focus «[The impact of higher agricultural commodity prices on emerging and low-income countries](#)» in the MR12/2022.

4. See P. Lane (2022). «Inflation Diagnostics». The ECB Blog.

5. The chart projects the contribution of energy inflation in 2023 based on its historical relationship with oil and gas prices. We consider three scenarios: (i) our own energy forecasts, (ii) stressed prices (gas at October 2022 levels and oil accelerating up to 110 dollars) and (iii) relaxed prices (gas according to January 2023 futures and oil at around 75 dollars).

6. ECB (2022). December 2022 macroeconomic projections.

7. See F. De Soyres, A.M. Santacreu and H. Young (2022). «Fiscal policy and excess inflation during Covid-19: a cross-country view». FEDS Notes. Washington: Board of Governors of the Federal Reserve System, 15 July 2022.

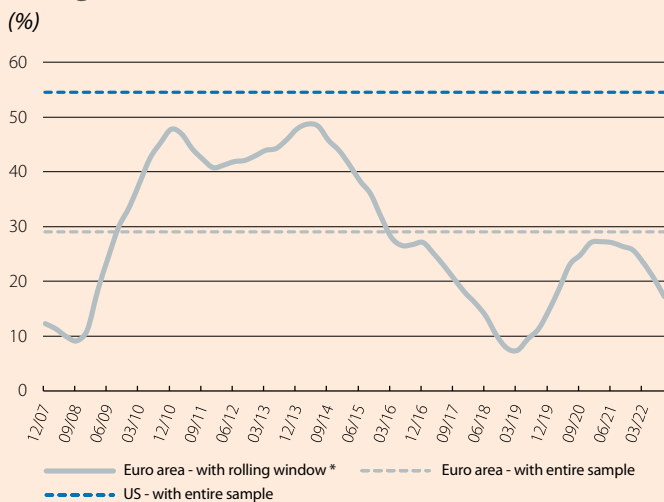
crisis stand out: it is estimated that they slowed inflation by just over 1 pp in 2022 and that they will continue to deduct 0.5 pps in 2023 (consequently, their withdrawal in 2024 will likely push up prices due to a base effect).<sup>8</sup>

**Second-round effects through wages**

This year, in addition, the central banks will have their sights set on one of the main determinants of inflation in the medium term: wages. In theory, when wage rises outpace productivity growth, this generates inflation because of the higher costs that companies must bear. Rapid wage rises also stimulate the aggregate demand for goods and services, which in turn tends to put further pressure on prices. The data for 2022 have shown us that wages in the US have registered rapid growth, rising by over 5% year-on-year, while in the euro area these rates have not been much higher than the historical average (2.4%).

While it may still be too early to tell, in the US a slight slowdown in wages has already begun, so it appears that second-round effects ought not be a problem in 2023. Wage growth in the euro area had a very low starting point, but it is gradually rising. Indeed, it is plausible that pressures in the labour market to minimise workers' loss of purchasing power could lead to higher than usual wage rises in 2023. To quantify the impact that wages could have on inflation in the coming quarters, we identified the components of the core consumer basket that have historically been sensitive to wage increases: 30% in the euro area and over 50% in the US.<sup>9</sup>

**Components of the core consumer basket sensitive to wages**



**Notes:** We consider that a component is sensitive to wages if, in the ordinary least squares regression of its price evolution versus the contemporary wages and their lag, any of the coefficients is positive and significant with a 95% confidence interval. For the euro area, we used the sample from 2001 to 2019 and for the US, from 2012 to 2019. \* Instead of using the entire sample, we performed the same regression with a five-year rolling window which we shift over time, allowing a component to be sensitive to inflation in some periods and not in others.  
**Source:** CaixaBank Research, based on data from Eurostat and the Bureau of Labor Statistics.

4% at the end of the year in the euro area and the US – supports our view that the cycle of rate hikes by the central banks should end before this summer (indeed, before the spring in the case of the Fed). However, both the Fed and the ECB will want to maintain a restrictive stance for a while to ensure that it returns to the 2% target rate – a task which will not be easy due to the inertia that core inflation looks likely to show.

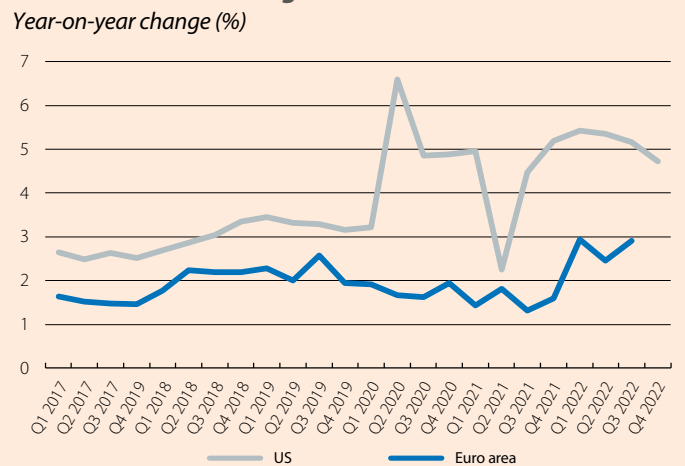
8. ECB, *op. cit.*

9. Specifically, we used an ordinary least squares regression for each component of core inflation (excluding energy and food) against the contemporary wages and those of the previous quarter. We consider a component to be sensitive to wages if any of the wage coefficients or their lag is positive and significant with a 95% confidence interval.

10. Instead of using the entire sample (from 2001 to 2019) we perform the same regression with a five-year rolling window which we shift over time, allowing a component to be sensitive to inflation in some periods and not in others, under the same conditions as explained in the previous note.

11. In particular, if we combine the identification of wage-sensitive components discussed above with the inflation rates recorded by these components, we see that as a whole they account for 60% of the core inflation observed in recent months (in line with their average contribution since the start of our sample in 2012).

**US and euro area: wages**



**Note:** For the US we show the evolution of hourly wages, while for the euro area we show wages negotiated in labour agreements.  
**Source:** CaixaBank Research, based on data from the ECB and the Bureau of Labor Statistics.

This figure provides a measure of the risk of second-round effects. In other words, if wage growth becomes more dynamic in the euro area, we know that 30% of the core consumer basket will tend to increase as well. However, there are several arguments that qualify this possible risk. The first is that there are still no significant wage pressures in the euro area. In fact, wages are growing well below inflation and the signs of acceleration are contained. The second is that if, in this illustrative exercise, we allow the components to switch between being sensitive and non-sensitive over time,<sup>10</sup> we see how the relative weight of the sensitive components has decreased in the euro area since the outbreak of the pandemic (see third chart). The third argument is that in the US, an economy where wages have already accelerated sharply and where the structure of the consumer basket of goods is somewhat more susceptible to second-round effects, the contribution of the components of core inflation that are sensitive to wage rises has remained at around the historical average.<sup>11</sup> In fact, in the US the main component that is driving up core inflation, and which is sensitive to wages, is shelter which accounts for more than 40% of the core index and is rising at a year-on-year rate of 7%. The inflation of this component is expected to remain high in the first half of 2023 due to the inertia it usually shows, although it could begin to moderate in the second half of the year.

In short, this outlook for inflation moderating in 2023 – to below 4% at the end of the year in the euro area and the US – supports our view that the cycle of rate hikes by the central banks should end before this summer (indeed, before the spring in the case of the Fed). However, both the Fed and the ECB will want to maintain a restrictive stance for a while to ensure that it returns to the 2% target rate – a task which will not be easy due to the inertia that core inflation looks likely to show.

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