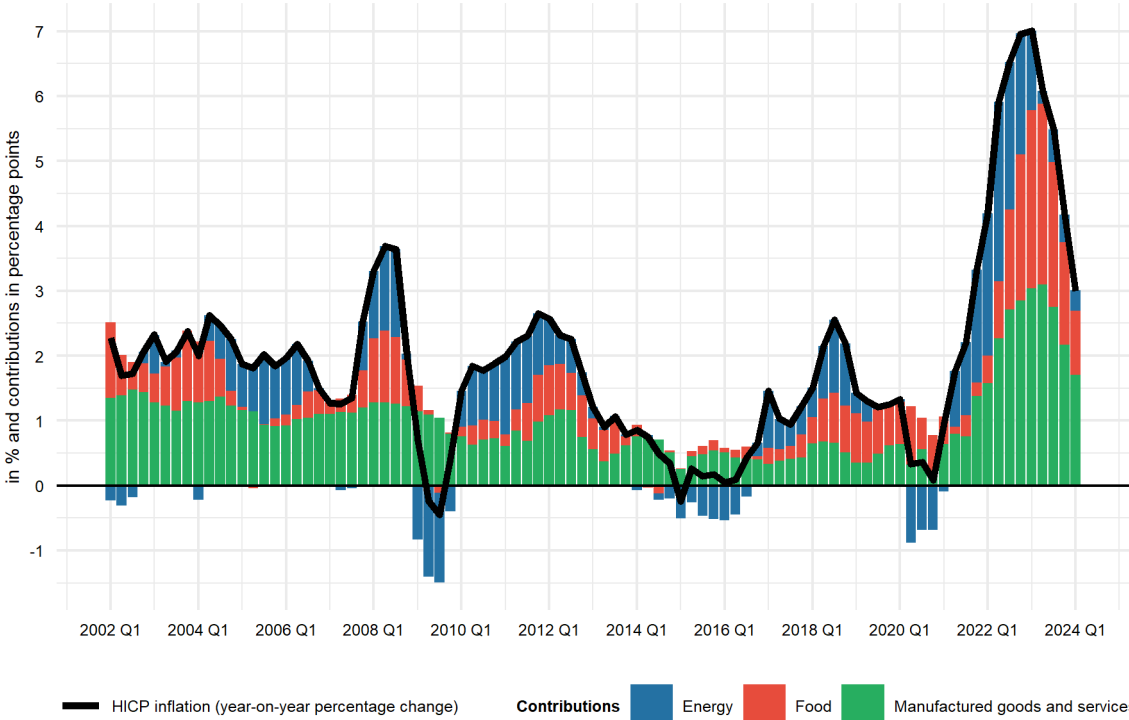


What are the causes of post-pandemic inflation in France?

by Pierre Aldama, Hervé Le Bihan and Claire Le Gall

In France, as in most advanced economies, inflation rose sharply between 2021 and 2023, reaching levels not witnessed for 40 years. Using the Bernanke and Blanchard model (2023), we conclude that, as in the United States, energy shocks, followed by food price shocks, fuelled post-pandemic inflation in France, without however triggering a wage-price spiral, thanks in particular to effective anchoring of inflation expectations.

Chart 1: Between 2021 and 2023, inflation rose sharply in France, driven by commodity price shocks



Source: INSEE and authors' calculations.

Note: HICP, Harmonised Index of Consumer Prices.

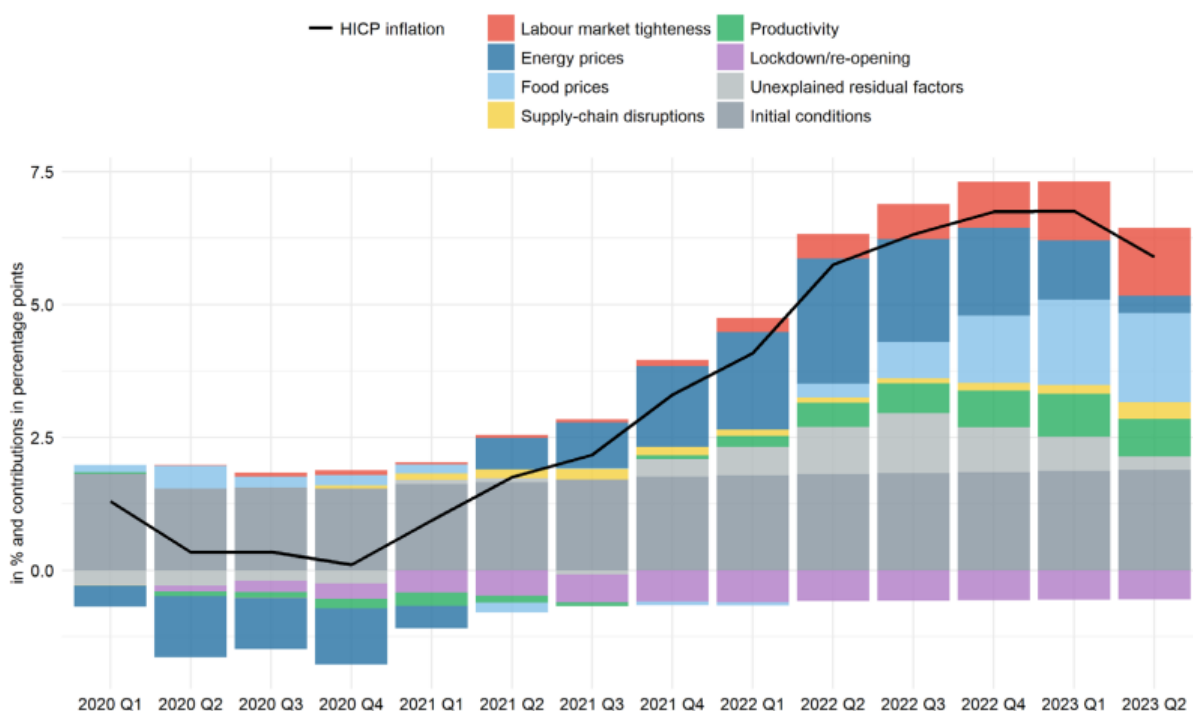
Understanding the causes of inflation between 2021 and 2023: a semi-structural approach

Inflation in France (measured in this post using the Harmonised Index of Consumer Prices, HICP) rose by 2.1% in 2021, before reaching 5.9% in 2022 and 5.7% in 2023. Several factors may have contributed to this increase, including disruptions to global supply chains during the post-pandemic recovery, the increase in energy and food prices following the Russian invasion of Ukraine, and tightness in the labour market.

Inflation, a macroeconomic variable, is measured by the change in an index that combines the prices of different products (energy, food, manufactured goods and services). Chart 1 shows the contribution of energy and food to consumer price inflation between 2021 and 2023. However, this “accounting” breakdown does not isolate the causes of past inflation. So, while energy price shocks directly impact the contribution of energy to inflation, they can indirectly impact other components as energy is an input for producing many goods and services. Furthermore, a rise in energy prices can translate into higher wages, triggering a wage-price spiral.

To isolate the factors that underpin inflation, [Bernanke and Blanchard \(2023\)](#) have developed a semi-structural econometric model, initially applied to the US economy. Under this model, the rise in inflation (just like movements in wages and inflation expectations) is attributable to shocks affecting different variables such as the tightness of the labour market (measured by the ratio of job vacancies to the number of unemployed), energy and food prices, supply chain disruptions and trend productivity. According to their analysis, the surge in US inflation from 2021 on (from 1.2% in 2020 to 8% in 2022) was mainly caused by commodity price shocks and supply chain disruptions. The tightening of the labour market was not a decisive factor for inflation until Q1 2023. However, the effects of overheating in the labour market could have materialised subsequently, given the greater persistence of higher wages. These latter considerations had initially led the authors to contend that the ‘last mile’ on the road to achieving the Federal Reserve's 2% inflation target could have been harder than anticipated.

Chart 2: Inflation in France driven primarily by the impact of energy prices, followed by food prices



Source: INSEE and authors' calculations (see Aldama, Pierre, Hervé Le Bihan and Claire Le Gall, "What caused the post-pandemic inflation? Replicating Bernanke and Blanchard (2023) on French data", Banque de France Working Paper, forthcoming).

Notes: initial conditions correspond to the model's projection in the absence of the shocks observed between Q1 2020 and Q2 2023

Similar causes in France and other advanced economies

We replicated this exercise for France and estimated the Bernanke and Blanchard (2023) model using quarterly data from Q1 1990 through Q2 2023. Overall, our results corroborate Bernanke and Blanchard's main findings when applied to France (see Chart 2). The sharp rise in inflation over the 2021-23 period was mainly triggered by energy price shocks in 2021. Food price shocks subsequently played a key role from 2022 onwards. By way of contrast, the impact of supply chain shocks remained small. However, inflationary shocks did not trigger a wage-price spiral, due to a low degree of wage indexation and a high degree of anchoring of inflation expectations, thanks to the credibility and strong response of the European Central Bank's monetary policy. According to our findings, although the inflationary response to a commodity price shock is strong, it is short-lived. However, the model shows that persistent tightness in the labour market causes persistent inflation.

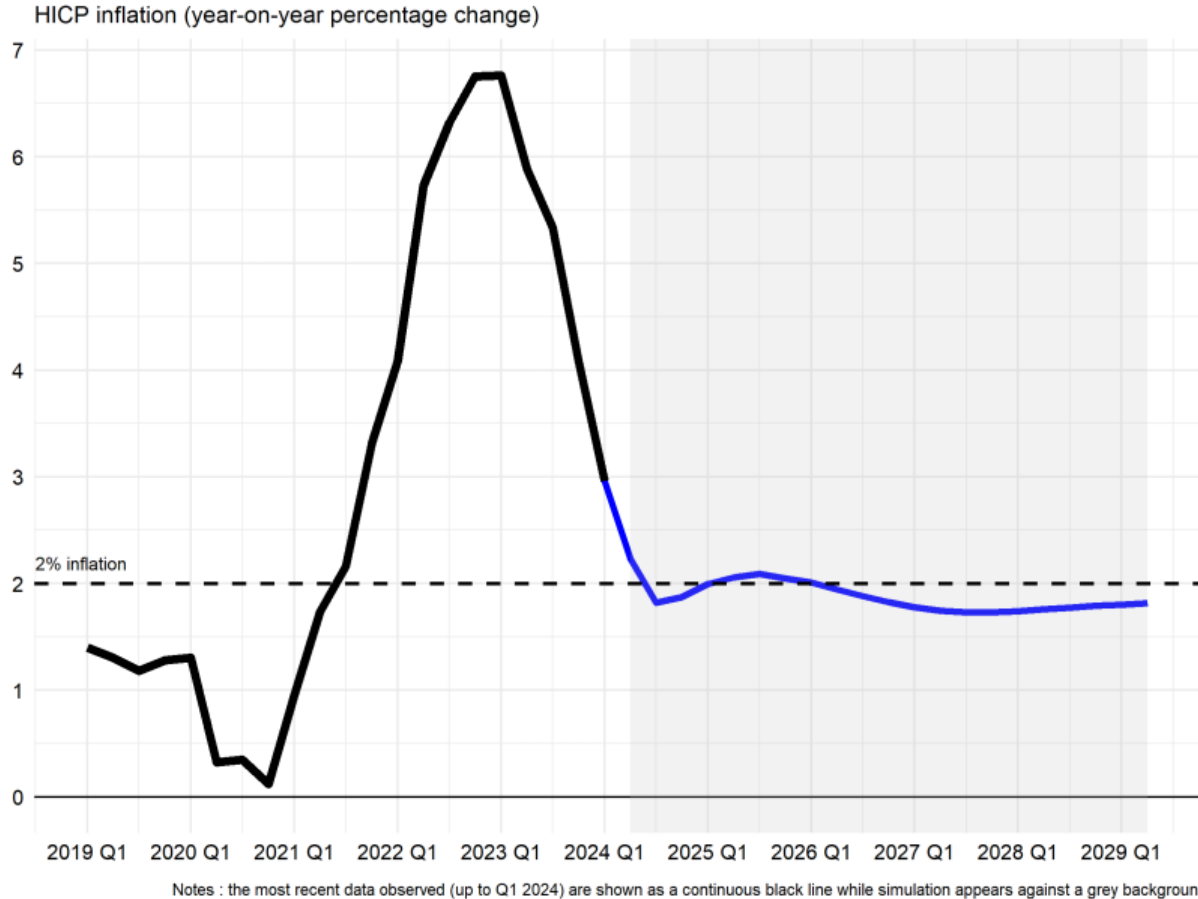
The French experience is very similar to that of other advanced economies. In this regard, the results discussed in this post are also the focus of a joint international project, presented in [Bernanke and Blanchard \(2024\)](#), involving the central banks of the United Kingdom, Japan, Canada, Germany, Italy, Spain, Belgium, the Netherlands and France, as well as the European Central Bank. Interestingly, France stands apart from other advanced economies because of

its price shield on energy prices (Lemoine, Petronevich and Zhutova, 2024), which limited and deferred price increases in France. As a result, inflation in France was more gradual and peaked at a lower level. Moreover, supply chain disruptions played a less significant role in France than in the United States.

A favourable outlook for a lasting return of inflation to around 2% from 2025 on

To conclude, applying the model to the most recent data (i.e. up to Q1 2024) sheds light on the outlook for inflation by simulating our model using a scenario similar to that presented in our June macroeconomic projections: tightness in the labour market should return to its pre-Covid level, which would imply an unemployment rate of slightly more than 7.5% in 2026.

Chart 3: Inflation paths in France under a scenario of a return to pre-Covid levels of tightness in the labour market



Source: INSEE and authors' calculations.

Notes: HICP, Harmonised Index of Consumer Prices.

This exercise confirms that disinflation should continue in France (Chart 3): the inflation rate should stabilise at around 2% for a lasting period from 2025 on, i.e. at the European Central Bank's medium-term inflation target. The risks around this scenario are balanced. A sharp

fall in the unemployment rate leading to persistent tightness in the labour market could push inflation back over 2%. Conversely, a continuing rise in the unemployment rate could push inflation well below 2%. Naturally, both scenarios would lead to monetary policy responses to prevent inflation from becoming too high or too low.

To precisely quantify the contribution of monetary policy to inflation dynamics and expectations, a more detailed model in general equilibrium would be needed. A key factor in the recent fall in inflation has been the preservation of well-anchored inflation expectations. The strong reaction of the European Central Bank's monetary policy since 2022 has played a key role in this anchoring ([Villeroy de Galhau, 2024](#)).