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What do central bankers talk about when they talk about inflation? The rise and fall of inflation narratives

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ABSTRACT
The 2021 debate over the causes of inflation was dominated by contrasting narratives around the drivers of, and solutions to, rising prices. But how these ideas did or did not penetrate central banks, the politically independent institutions responsible for keeping prices stable, remains unclear. In this paper we investigate how the Bank of England, European Central Bank, and Federal Reserve discussed and deployed specific inflation narratives over time in their attempts to diagnose and treat the inflation of the period. We focus on four narratives that identify the main drivers of inflation in (1) excessive public spending, (2) higher wages in the labour market than warranted by productivity, (3) supply side disruptions to critical markets such as energy, and (4) corporate profit margin expansion. We use a large language model to tag central banks' speeches with relevant narratives at sentence level, which allows us to quantify how much each central bank discussed each narrative. The results shed new light on how these three central banks interfaced with the recent debate around inflation.

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Introduction

By the summer of 2025, the inflationary shock of 2021–2023 seems to have dissipated but not disappeared. Nonetheless, the debate over what causes inflation rumbles on. Identifying the sources of inflation is not straightforward. We only get to see inflation through its effects, which raises questions of observational equivalence when we ascribe causes to those effects. For example, we see the war in Ukraine, but not how that war impacts energy prices. We get to see higher prices for eggs, but not how market concentration allows firms to push up margins. Such complexity makes it possible for the same phenomenon to be identified as being caused by multiple different factors. Despite many economists seeing inflation as 'always and everywhere a monetary phenomenon', as Milton Friedman famously put it (Friedman 1963), the 2021–2023 inflation created the conditions for the emergence of multiple and contending causal stories about inflation that we identify as different inflation narratives.

We define an inflation narrative, following Blyth (2002) as a 'causal story' that relies upon a model, implicit or explicit, of the factors that lead to a general increase in the level of all prices. It does so by proposing a mechanism through which a general increase in the level of all process occurs. We are not claiming that any particular narrative is true. Rather we are focused on the extent to which central bankers were either influenced by, or tried to influence the direction of policy, through highlighting distinct narratives in their communications.

Such narratives are important for three reasons. First, which narrative gets chosen as the correct frame to understand inflation will narrow the feasible set of policies on how to deal with it. Second,

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central banks, the independent agencies charged with protecting their economies from inflation, were caught flat footed when inflation arose in 2021. In such an environment, multiple contending interpretations of what caused the inflation (and hence what to do about it) began to circulate. Rather than staying aloof from such debates, central banks drew from these narratives to both make sense of the inflation and to narrow down their policy options. Third, the deployment of such narratives is related to the need for such independent agencies to legitimate their actions. As such, drawing on, responding to, and even using externally generated narratives gives insight into why central banks respond to inflation and the variation across cases that this produces.

This paper acknowledges and builds upon a wide range of prior work on quantitative text analysis of central bank speeches to look at narratives and ideational change in central banks. Particularly salient in this regard are Goutsmedt and Fontan (2024), whose study maps the emergence of new topics in ECB discussion of inflation, Ruman (2023) who analyzes how the Fed frames inflation, and Moschella and Pinto (2019) that analyzes how the Fed, in moments of policy uncertainty, tends to highlight policy areas where it's perceived reputation is weak.

In this paper our theoretical contribution is to build upon this work by highlighting how these inflation narratives circulated inside central banks, likely influencing their policy. While prior work has highlighted how, for example, central bankers 'recruit' the public into their policy regime in order to produce monetary policy (Holmes 2013), our contribution turns that relationship around. Here we inquire how narratives generated 'out there' impact how central bankers view the economy in their internal deliberations. Similarly, we build upon the studies referenced above by linking the topics mapped by, for example, Goutsmedt and Fontan (2024), to the external debate over inflation's causes.

We identify four main narratives that characterised the debate around inflation (Blyth and Fraccaroli 2025) each focusing on a different cause for higher prices: (1) excessive fiscal stimulus, (2) rising wages in the labour market, (3) supply shocks, and (4) excess corporate profits. In this section, we describe the content of each narrative, focus on what proponents of each narrative identify as the key inflation driver, and the policy they prescribe to reduce inflation. Table 1 summarises these three elements for each narrative.

Narrative one: fiscal stimulus causes inflation

The fiscal stimulus narrative identifies the main driver of inflation as the expansionary fiscal policy that governments, particularly the US government, implemented during Covid. This narrative originated in the US, where the government engaged in a $1.9 trillion fiscal stimulus to offset the

Table 1. Inflation narratives.

Narrative	Driver	Theory	Policy
Fiscal stimulus	Government excessive spending	Too much money (injected in the economy via government spending) chases too few goods, making goods and services more expensive.	Reduce public spending, increase interest rates.
Labour market	Wage-price spiral	Higher prices lead workers to ask for higher nominal wages. Higher wages translate into higher labour costs for firms. Firms pass such costs to consumers through higher prices, creating a 'wage-price' spiral.	Increase interest rates in order to generate a recession so that the labour market cools down. As unemployment grows, workers drop their claims for higher wages, breaking the wage-price spiral.
Supply side	Exogenous shocks (pandemic and wars)	Supply side disruptions generated by exogenous shocks increase prices of transport and intermediate goods that impact prices of services and final goods.	Inaction or moderate rate hikes.
Corporate profits	Firms' markups	Firms take advantage of inflation to raise prices beyond the shock-driven increase in the marginal cost of production.	Price controls and anti-trust regulation.

deflationary effects of the Covid shutdown.[1] These fiscal measures, in the US and elsewhere, took the form of direct disbursements to households, indirect disbursements to firms, income supplements, or debt reliefs, among others. The key idea is that the fiscal stimulus created 'too much money chasing too few goods'. During the pandemic, the supply of goods fell following the shutdown of global supply chains.

In such context, stimulating the economy by increasing disposable income[2] and therefore consumption and investment – exacerbates this shortage, as demand pressures outpace the economy's productive capacity, resulting in higher prices (De Soyres *et al*. 2022; Di Giovanni *et al*. 2023; Bianchi *et al*. 2023; Dynan and Elmendorf 2024). A variant of this narrative focuses on the role played by monetary policy in lieu of fiscal policy. The fiscal stimulus was accompanied by a monetary stimulus from central banks,[3] which injected additional liquidity to the economy. The impact of the monetary stimulus on inflation, however, was less clear than that of the fiscal stimulus (Bianchi *et al*. 2023).

Narrative two: the labour market overheating causes inflation

A second narrative portrayed the labour market as the driver of inflation. The basic idea is that when there are too many job vacancies relative to the supply of available workers, workers will bargain for higher wages than they could in a world with higher unemployment. The economic idea underpinning this narrative is the Phillips curve, which implied a possible trade-off between higher inflation or higher unemployment that states could seek to exploit given their policy preferences (Phillips 1958). The risk of exploiting this trade-off however is the emergence of a wage-price spiral. If workers facing higher prices ask for higher nominal wages, firms will face higher labour costs. To offset those higher labour costs, firms will charge higher prices, which will push workers to call for higher nominal wages, pushing the firms' production costs upward in a spiral. In such a spiral, inflation could spin out of control, with the only exit strategy being to engineer a recession that would result in higher unemployment, forcing workers to moderate their wage requests at high social costs. In line with this narrative, many prominent economists considered wage growth as a central inflation driver (Blanchard 2021, 2022; Summers 2021; Domash and Summers 2022) while central banks closely monitored wages and job vacancies during the 2021 inflation.

Narrative three: the supply side breaking down causes inflation

Proponents of the supply side narrative focus on exogenous shocks, such as the Covid shutdown, that exerted pressure on global value chains, forcing firms to increase their prices due to factors outside of their control. Proponents of this narrative are often referred to as 'team transitory' (Krugman 2021; Blanchard and Bernanke 2024), as they see inflation as being driven by a temporary shock that will dissipate over time. In this perspective, inflation was blamed on oil, gas and food price hikes that followed Russia's invasion of Ukraine in February 2022. a series of studies supported this view, showing that in the US inflation was mostly driven by sharp increases in supply disruptions that manifested mainly in the prices of food and energy (Blanchard and Bernanke 2024; Dao *et al*. 2024).

In this interpretation, monetary tightening is not necessarily effective in reducing inflation. If inflation is driven by exogenous shocks, the duration of inflation depends on those same external factors, such as the duration of the Ukraine-Russia war or of the pandemic-related disruptions. In this context, increasing the cost of liquidity domestically has arguably little impact, as inflation is mostly imported through higher energy or intermediary goods prices. Central banks' actions, however, are believed to play a role if supply shocks are believed to impact inflation expectations (Harr and Henderson 2024). Although the shocks are temporary in nature, as businesses and households face higher prices for a prolonged period, they might start to believe that inflation will not return to its prior level and will instead keep growing. Inflation expectations would hence 'disanchor' from the inflation objective established by the central bank. This scenario requires central banks to strike a difficult balance between two objectives when setting interest rates. They need to tighten monetary policy enough to signal the market that inflation will return back to normal, while avoiding the risk of creating a recession by raising rates too much as the driver of inflation is a temporary shock, not an endogenous overheating of the economy.

Narrative four: excessive corporate profits cause inflation

This narrative focuses on the abnormal increase in firms' markups that followed Covid and that resulted in a surge in corporate profits.[4] For example, domestic profits accounted for 45 percent of the Euro Area inflation in 2021–2022, as companies increased prices beyond the rising costs of energy imports (Hansen *et al*. 2023). Weber and Wasner (2023) view the transmission of profits to inflation, which they named 'sellers inflation', as dependent on market power. In such framework, firms facing a commodity price upswing and supply bottlenecks see both their prices and profit margins increasing due to rising input costs. In this phase, some firms acquire temporary monopoly power that they can use to charge higher prices. In line with this evidence, Konzcal and Lusiani (2022) show that markups increases have been largely driven by the top 90th and 75th percentile of the markup distribution, meaning that markups increased mainly among the firms that already had the highest markups. Given such a diagnosis, policies that limit market concentration, such as anti-trust policies, are seen as a tool to address profit-driven inflation risk at structural level. Temporary price controls represent a short-term solutions to address the same issue, by sanctioning firms that charge prices over a certain threshold.[5]

In this paper we are interested in how these narratives may have impacted central banks' policy discourse of the relevant drivers of inflation. In doing so, we intentionally avoid assessing the soundness of these narratives, since each narrative is subject to criticism as it cannot grasp the phenomenon of inflation as a whole (Blyth and Fraccaroli 2025). The fiscal stimulus may have explained part of inflation, especially in the US, but it was certainly not the only driver of higher prices in the US or globally.[6] The labour market view rested on a sound theory that however did not seem to match empirical data, as real wages in OECD economies remained low and wage-price spirals historically materialised very rarely.[7] Supply side factors were key in pushing costs up, especially by boosting the costs of energy and through import prices, but evidence shows that inflation was only partly (even if by a large extent) explained by supply factors, as a considerable share of it was driven by demand-side factors.[8] Corporate profits played a role as certain firms were able to pass the costs on consumer while prices were volatile. But it remains unclear which firms actually profited from this situation aside of firms in the energy sector (Leduc *et al*. 2024)

The inflation context in the three case studies

Inflation hit the UK, the eurozone, and the US with similar timing and magnitude, but with some differences (Figure 1). In all three cases the inflation rate started growing in 2021, at a faster pace in the US (in 2021, yearly inflation in the US was 4.7 percent compared to 2.6 percent in the euro area and UK) and peaked in 2022, when it reached an annual rate of 9.1 in the UK, 8.4 in the euro area, and 8 percent in the US. Prices slowed down in 2023 and returned closer – but still above- 2 percent in 2024, when the yearly rate of inflation was 2.4 in the euro area, 2.6 percent in the UK, 3 in the US.[9]

Energy was a major source of inflation in all three cases, but with some differences. Inflation first appeared in the US in the second half of 2020 mainly in terms of soaring energy and used cars and trucks prices. Prices grew at a faster pace in the end of 2021 and reached their peak in 2022 after Russia invaded Ukraine, generating a sustained rise in energy prices in the US and Europe. Differently from the US, inflation in the euro area was mostly driven by energy, and not by used cars. Moreover, prices in the Euro Area started growing at a later stage, i.e. in 2021, and increased at a more gradual

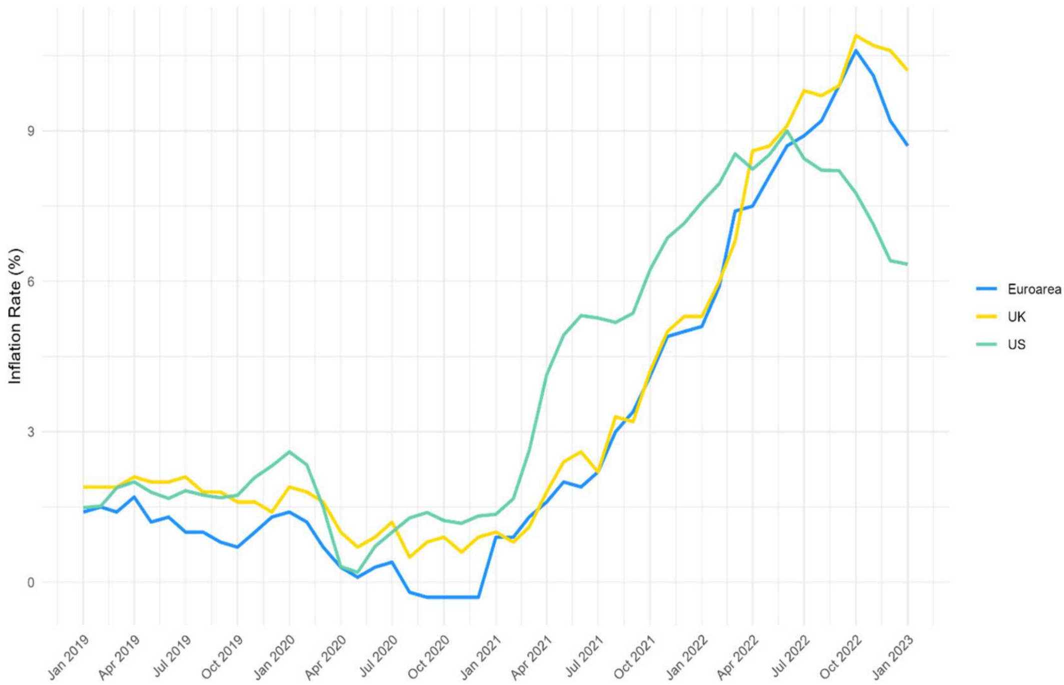

Figure 1. Inflation rates in the UK, US, and Euro area. Source: OECD for the Euro Area and the UK, US Bureau of Labor Statistics for the US. Note: The chart plots the monthly growth rate of the consumer price index.

pace (Harr and Henderson 2024). In the UK inflation appeared in mid – 2021. While energy played a role in fuelling prices of British products, UK inflation was mainly concentrated in services and non-energy industrial goods. The UK is also the jurisdiction that recorded the highest peak in monthly inflation, namely 10.90 per cent in October 2022. The inflation peak for the Euro Area was 10.60 per cent in the same month, while inflation peaked in June 2022 in the US at 8.99 per cent.

Data and methodology

Data sources

For the three central banks in our study – European Central Bank, the Bank of England, and the Federal Reserve Board – we used web scraping techniques to extract all speeches given by board members of these three central banks since 2006. For the European Central Bank (ECB), we sourced the speeches dataset from their speeches dataset page,[10] which provides a precompiled dataset containing the content of all speeches along with limited metadata, updated as of June 1, 2024. This dataset aims to assist researchers in central bank communication and stimulate natural language processing research on the impact of these speeches. For the Bank of England, we extracted data from the Bank's speeches section via the sitemap page at Bank of England speeches.[11] We requested the HTML content of these pages, parsed them to extract URLs of individual speeches, processed the speech content, and saved the extracted texts. Similarly, for the Federal Reserve Board (FRB), we extracted data from the FRB's speeches section.[12] We requested the HTML content of these pages, parsed them to extract URLs and metadata of individual speeches, processed the speech content, and saved the extracted text. We requested the HTML content of these pages, parsed them to extract URLs and metadata of individual speeches, processed the speech content, and saved the extracted text. In Appendix I we outline in detail how we pre-process and validate the textual data.[13]

Sample Size Plot

Figure 2 shows trends in the number of speeches, sentences, and sentences mentioning inflation from the three central banks: the Bank of England (BoE), the European Central Bank (ECB), and the Federal Reserve (Fed) over time. The left panel shows the number of speeches given each year, with the ECB consistently having the highest number, followed by the BoE and the Fed. The middle panel displays the total number of sentences in these speeches, mirroring the trends seen in the number of speeches. The right panel shows the number observations in the subset of sentences which are most relevant to our analysis: those which include the word 'inflation' and may or may not refer to one of the narratives discussed above. Note that for some banks, in some years, the number of inflation sentences is relatively small. Therefore, we must remain cautious in interpretation, because a few speeches can sometimes have a large impact on descriptive statistics and proportions.

Results: narrative plots

To analyze the results for each narrative, we first filtered sentences to keep only those containing the word 'inflation'. For each bank and each month, we computed the share of inflation sentences that the LLM tagged as belonging to one or more narratives.[14] This computation provided a measure of how frequently each narrative appeared in inflation discussions. To make the time series more legible, we applied a 12-month centred moving average to smooth the prevalence over time before displaying it in the plots.[15] The height of the lines in the graphs can be interpreted as the percentage of sentences that carry a given narrative among sentences that include the word 'inflation'. This visualisation helps to understand the relative prevalence of different narratives over time in central bankers' speeches.

The main results are displayed in Figure 3, which shows the evolution of the four narratives. As expected, the inflation bout of 2021 marked an upward shift in all four narratives in central banks' speeches. But there are significant differences across narratives and central banks. In general, there is a large gap in the frequency of these narratives in central banks' speeches, which can be observed in the different scales of the vertical axes. Specifically, labour market and supply side drivers of inflation are discussed significantly more than fiscal policy and firm profits or competition. This reflects the fact that historically the labour market and supply side shocks have been more prominent in central banks' discussions on inflation. The most interesting result is that some narratives found traction with some central banks more than others.

The fiscal stimulus narrative was discussed more by the ECB and the BoE than the Fed. Although this result may be surprising given the prominence of the fiscal policy narrative in the US debate, three factors help explain it. First, discussing the relevance of fiscal policy for inflation is less politically sensitive for the ECB than for the Fed or the BoE, given the absence of a centralised fiscal

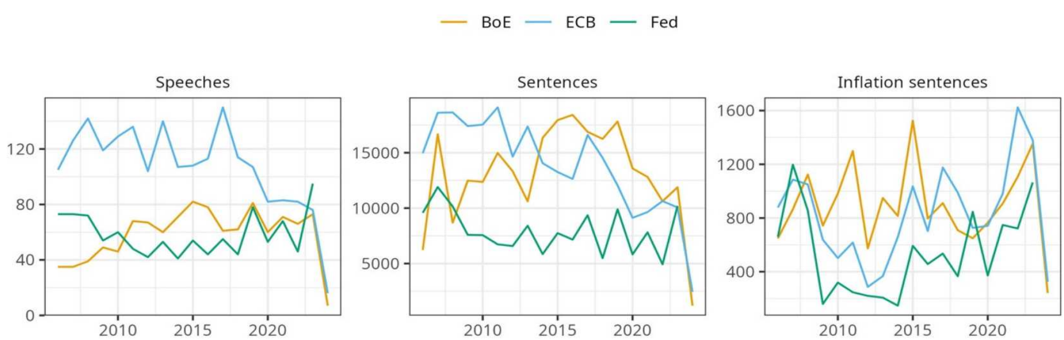

Figure 2. Sample sizes of the speeches datasets, measured at different levels of granularity.

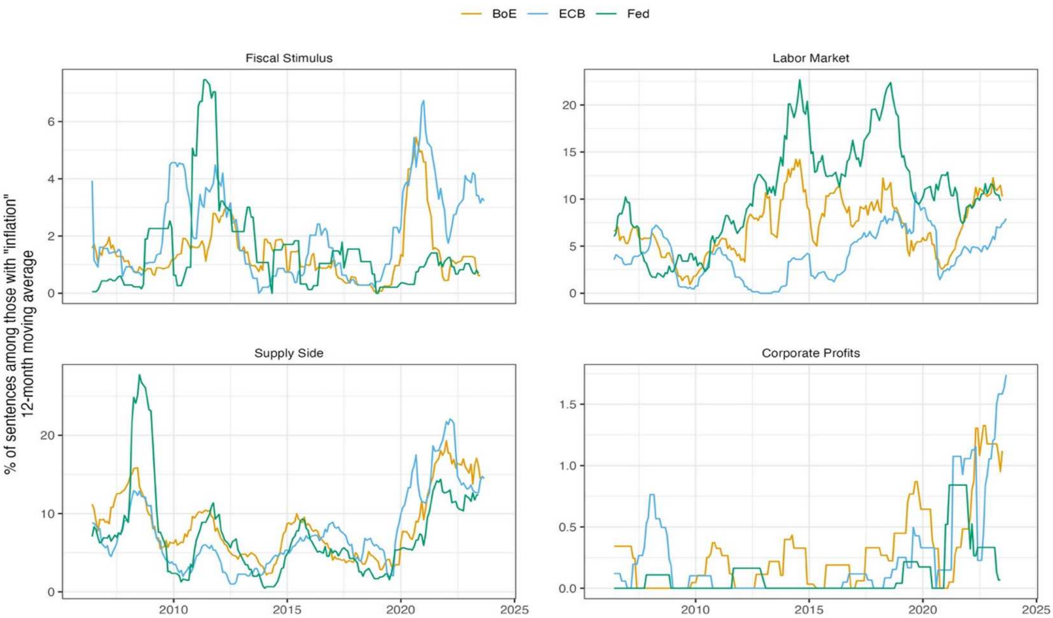

Figure 3. Inflation narratives for the BoE, ECB and Fed. Source: own elaboration based on central banks' speeches.

authority in the euro area. Second, the results for the ECB do not necessarily reflect a view that attributes the responsibility for inflation to excessive government spending. To the contrary, in some speeches related to the link between fiscal policy and inflation, ECB officials invite EU governments to introduce targeted spending programmes to mitigate the side effects of higher rates.[16]

Third, both the BoE and the ECB discuss the fiscal stimulus narrative in relation to US inflation rather than their own domestic inflation sources. This connects to the first regarding politically sensitivity. That is, it is politically less risky for the ECB and BoE to analyze the fiscal policy of the US administration than for the Fed. The Biden stimulus was politically contested and divided the American public, with Republican voters being more likely to attribute inflation to government policies than Democrats (Binetti *et al*. 2024). The Fed and the BoE focused substantially more than the ECB on the labour market narrative. One reason for the Fed to focus on the labour market is that, in contrast to the ECB and BoE, its mandate concerns not only price stability but also full employment. The stronger focus on wage-driven inflation suggests why the Fed and the BoE have been more reticent to lower rates than the ECB.

The three central banks follow a similar pattern in their coverage of the supply side narrative of inflation. This pattern is characterised by a surge in the discussion of supply side sources early in the manifestation of the inflation shock. The frequency of the discussion then stabilises at a level that is higher than the pre-2021 level, as central banks keep their focus on this source of inflation. The ECB and the BoE discussed profit-driven inflation significantly more than the Fed, which was nonetheless the central bank that initially spoke more often about this source of inflation at the beginning of 2021. When the Fed talks about profits-driven inflation, it stresses markups as one of many other drivers of inflation. The BoE, in contrast, discusses firms' search for profits as one of the two factors that lead sellers to charge higher prices alongside higher labour costs. The ECB displays a more targeted focus on corporate profits as the most relevant driver of inflation in the euro area.

We now analyze in detail these differences, narrative by narrative. In doing so we focus on the most recent debate around inflation, i.e. the results from 2021 onwards.

The fiscal stimulus narrative

The fiscal stimulus narrative gained significant traction at the very beginning of the inflation. This is not surprising as government spending to counter the economic slump caused by the pandemic was seen as potentially inflationary. This was especially the case in the American debate, where some commentators considered the Biden stimulus excessive (Harr and Henderson 2024). As mentioned above, this narrative is significantly less present in the speeches of the Fed compared to the BoE and ECB.

As noted above, deploying the fiscal narrative to explain inflation can be linked to political legitimacy considerations. It was less politically sensitive for the British and European central banks to do so and was usually deployed to analyze US inflation rather than their own. In its speeches, the BoE noted that 'the US looks different first with distinct inflationary surges taking inflation to double digits, on account of large fiscal stimulus, even though the US was never as exposed to high energy prices as the rest of the world' (Mann 2023). Similarly, the ECB discusses the fiscal narrative by pointing out that 'large public infrastructure programmes on both sides of the Atlantic […] may give rise to upside potential for inflation' (Schnabel 2021). However, the ECB also discussed fiscal policy in a more positive note, arguing that 'well-designed energy and fiscal policies can make a key contribution to dampening short-term inflationary pressures […] reducing the amount of monetary tightening necessary' (Panetta 2023), while observing that 'fiscal policy is helping to cushion the impact of the war and governments have intervened to slow energy inflation, referring to EU governments' spending programs put in place to dampen the costs of a number of services, including utilities and transportation' (Lagarde 2022a).

Analyzing the fiscal narrative suggests that political legitimacy may play a role in shaping how central banks select narratives. For the Fed, focusing on the inflationary effect of the stimulus in public speeches may have signalled that the central bank was taking a stance in a politically heated debate, which represented a risk for an institution that bases its legitimacy on its independence from political pressures. At the same time, it should be noted that the US central bank did not refrain from analyzing the inflationary impact of the stimulus in its research outputs (e.g. see Jorda *et al*. 2022; Di Giovanni *et al*. 2023). Therefore, the Fed may have focused less on this narrative simply because it was too early to attribute the cause of inflation to the stimulus. However, this contending interpretation does not explain why the ECB and the BoE covered such narratives more extensively at an earlier stage compared to the Fed.

The labour market narrative

The labour market narrative was particularly prominent in Fed speeches, while for the BoE and ECB the labour market narrative gained traction over time, particularly at the BoE in the most recent period. For example, Fed's Randall K. Quarles observed that he was 'not worried about a return to the 1970s', referring to the inflation of that period stemming from the oil shocks, since 'the kinds of "wage-price spirals" that characterized inflation dynamics in the 1970s have not been present for a long time' (Quarles 2021). In the same speech, Quarles deployed the supply side narrative, arguing that 'we need to remain patient in the face of what seems to be transitory shocks to prices and wages'. However, in later speeches Fed officials backed the labour market view, observing that 'the labor market is fairly tight' and that the Fed will be monitoring its development 'to see whether it continues to moderate in ways that keeps inflation moving toward 2 percent' (Waller 2023a). In other speeches, Fed officials argued that the inflation outlook could improve if the economy experiences a decrease in wage pressures (Jefferson 2023; Waller 2023b).

The BoE paid growing attention to labour market dynamics in 2022, and even more so in 2023. In August 2023, Deputy Governor Ben Broadbent observed that while the sensitivity of inflation to wages appeared to decline in the 1990s, such sensitivity returned in the first eight months of

2023, as the growth in UK wages was accompanied by a similar growth in prices (Broadbent 2023). Wages were seen as a relevant second-round source of inflation following the initial price push stemming from the supply side shock (Tenreyro 2022; Dhingra 2024). The ECB often referred to the labour narrative mostly to signal its effort in monitoring wages rather than to justify its policy decisions. ECB President Lagarde argued that while accelerating wages could represent a source of inflation risk as they would de-anchor inflation expectations, she also highlighted that an opposite scenario, one where wages fail to catch up, could result in a significant reduction in households' real income (Lagarde 2022b).

The supply side narrative

In terms of the supply side narrative, US central bankers attributed a stronger emphasis on the potential effect that the supply shocks can have on inflation expectations, while for the BoE and ECB their speeches tend to focus more on magnitude of these shocks on prices. The other major difference is that the Fed tends to discuss supply side drivers more in combination with other demand side factors linked to the fiscal and labour narratives than the BoE and ECB. These two differences point to two complementary interpretations.

First, the Fed may have seen supply side factors as a reason to tighten its policy more than the two other central banks. This was particularly the case for the ECB, whose board member Isabel Schnabel expressed high uncertainty around the potential impact of higher rates on inflation (Schnabel 2023a). Second, the ECB and BoE attributed a stronger impact to supply side constraints than the Fed, who instead emphasised more frequently that supply constraints acted in combination with demand side factors. This is perhaps less surprising given the larger exposure of the euro area and the UK to energy sources that were impacted by the Russian invasion of Ukraine.

Fed officials put particular emphasis on the role that supply constraints could have in de-anchoring inflation expectations.[17] This is significant as highlighting the risk posed by de-anchored expectations implies a need for monetary policy intervention to shape households' expectations of future prices, which allows central banks to justify rate hikes even if the inflationary shock is seen as temporary.

The Fed also argued that easing supply constraints could help bring inflation down, implicitly referring to the temporary nature of these shocks, but highlighting the key role that monetary policy can play in transiting to a lower inflation scenario.[18] In the hands of the Fed, the supply side narrative is often deployed in combination with factors highlighted by the other inflation narratives. Fed officials see inflation running high because of 'a collision between very strong demand and pandemic-constrained supply' (Powell 2023) or, more precisely, of bottlenecks in some supply chains alongside a surge in demand (fiscal and labour narratives) (Quarles 2021).

The BoE also stressed supply shocks in explaining the inflation that the UK faced. Governor Bailey argued that 'the UK economy has been hit by a series of external inflationary shocks: higher goods prices in global markets owing to supply bottlenecks created by the pandemic and higher energy and food prices following from Russia's war on Ukraine and its people' (Bailey 2023b). Other BoE speeches refer to studies that identified supply-side shocks, in particular the energy shock, as the main drivers of inflation (Ramsden 2022; Tenreyro 2023).

The ECB similarly stressed supply side constraints, highlighting the role of the war in Ukraine, uncertainty around the Black Sea grain deal in 2023, the flooding of the dam in the Kherson region, as drivers of energy and food inflation (De Guindos 2023; Schnabel 2023a).[19] But the ECB also acknowledged that such temporary inflationary pressures would play a consequent role in the deceleration of inflation in 2023 (Lane 2023).[20] Similar to the BoE, also the ECB stressed how supply side factors had a strong influence on their inflation forecast, pointing out that the volatility of energy prices resulted in larger inflation forecast errors (Lagarde 2024).

The corporate profits narrative

The corporate profits narrative initially found traction along all three central banks, but was most prominently deployed by the ECB and, to a lesser extent, by the Bank of England. For example, the ECB President observed that in certain sectors firms 'had taken advantage of […] the mismatch between supply, constrained by bottlenecks, and demand, enhanced by recovery, and a situation of everybody is in the same position, we're all going to increase prices […] In those circumstances, those sectors have taken advantage to push cost through entirely, without squeezing their margins, and – for some of them – to push prices higher than just the cost push that would have resulted from the imported inflation' (European Parliament 2023, page 18).

The Fed discussed the role of profit margins less than the BoE and ECB. Interestingly, the US central bank analyzed the linkage between profit margins and inflation decades before the 2021 inflation. Fed chair Bernanke observed back in 2008 that while 'considerable work has been done on the role of time-varying markups in the inflation process', the consensus on such role 'remains elusive' (Bernanke 2008). His successor, Janet Yellen, presented a somewhat more skeptical view on the long-term impact of markups increases on inflation, observing that 'although firms passed higher input costs into their prices when they could do so, those one-time price increases have not led to an expectations-driven process that might have resulted in persistently higher inflation' (Yellen 2012). In the recent inflation bout, Fed officials implicitly considered that profit margins could be a driver of inflation, as they believed that their return to normal levels could 'meaningfully help reduce inflationary pressures in some consumer goods' (Brainard 2022).

The ECB showed a more clearcut stance on profits-driven inflation. The ECB identified it as a crucial contributor to inflation as shown in the heightened frequency with which the central bank discusses the topic (Figure 2). As the ECB President put it, 'unit profits contributed around two-thirds to domestic inflation in 2022' (Lagarde 2023), a view that has been reiterated by other ECB Board members, who called for the need to monitor a potential profit-price spiral (Schnabel 2022, 2023b; Panetta 2023).

The BoE followed a similar pattern to the ECB, as shown by an increasing focus on the profit narrative at the end of the time series, but in a less volatile pattern than the ECB over time. BoE Governor Bailey maintained that the extent through which firms have passed higher costs to consumers 'will influence the pace at which [services inflation] will decline' (Bailey 2023a). In contrast to the ECB, in almost all instances the BoE discussed profits as a driver alongside wages while the ECB does so only in a few instances. In particular, the BoE interpreted the profits narrative as just one element of a double-edged domestic driven source of inflation composed of both rising margins and wages (i.e. labour costs faced by firms), which pushed enterprises to charge higher prices on their products (Pill 2022; Ramsden 2022; Tenreyro 2022; Dhingra 2023).

Narratives by speakers

So far, we have analyzed the scores on each narrative aggregated at central bank level. We now split the sample by speakers to understand how cohesive speakers within each central bank are on the four narratives. We analyze qualitatively how the speakers of each central bank discuss the four narratives.[21] We notice that in general speakers mention the narratives to propose them as potential explanations for observed or expected inflation. There are some exceptions in which speakers refer to a narrative to refute it, but those cases are rare.

The main differences we detect are the emphasis that speakers give to the relevance of each narrative or to the different aspects related to the narratives' mechanics (e.g. the nature of the supply side shock). On fiscal stimulus, all three central banks acknowledge its inflationary effects, but attach different emphasis to it. BoE officials warned cohesively, even with different emphasis, about the risks of fiscally-induced inflation. Their claims were mostly based on the case of the US and historical cases and later warned against the inflationary effects of domestic expansionary policies. The ECB was more divided on the topic.

President Lagarde and Vice-President De Guindos encouraged policymakers to be considerate of the potential inflationary risks of their policies. Schnabel cautioned that fiscal expansion could fuel inflationary pressures, while Panetta, in contrast, highlighted that higher investment could mitigate inflation in the long-run. The Fed presented a wider range of views, with some policymakers seeing fiscal stimulus as a transitory inflation driver, while others raised concerns about its long-term effects. Overall, Fed speakers converged on considering the fiscal stimulus a potentially inflationary factor among other drivers.

On the labour market, all three central banks recognised the link between tight labour conditions and inflation, but the degree of concern varied. The BoE and ECB emphasised the need to monitor wage dynamics due to the potential pressures they could exert on prices. Both central banks underscored the risk of wage-driven second-round effects, with ECB officials acknowledging that persistent labour shortages could entrench inflation. The Fed, while acknowledging labour market tightness, remained cautious about its sustained impact, with some officials expecting wage pressures to moderate over time.

The supply-side narrative saw the strongest consensus across all three central banks, with broad agreement that external shocks – especially energy price spikes and supply chain disruptions – were primary drivers of inflation. Moreover, all three central banks presented a similar dynamic in their position on this narrative, as the shocks evolved. Initially, they saw the supply shocks as temporary. However, later on officials raised concerns that these shocks could have longer-lasting effects on prices than initially anticipated.

In contrast, the corporate profits narrative exposed sharp differences. The ECB presented a unified stance, with officials identifying profit margins as a key inflation driver, albeit with varying emphases. The BoE, by contrast, was divided – some policymakers acknowledged firms' pricing power as a contributor to inflation, while Governor Bailey downplayed this concern. The Fed barely addressed this narrative, with Lael Brainard being the sole policymaker to discuss the role of profit markups in inflation. Overall, these analyses highlight how central banks have navigated the complexities of inflation, with varying levels of internal consensus and differing policy concerns shaping their responses.

Conclusions

While we do not aim to claim a causal link between the frequency of each narrative and the response to inflation among central banks, these results allow us to distil some new insights concerning the relationship between central bankers and the broader narratives about the causes of inflation. First, while the BoE was the first central bank in our set to raise interest rates, it did not present major differences in its coverage of the narratives compared to other central banks in the early stages of the inflation. In other words, while the BoE was a first mover in its policy, it was not a first mover on narratives. The BoE deployed each narrative at the same time, or later than the other central banks. It is henceforth difficult to argue that the dominance of any specific narrative played a determining role in BoE policy.

Second, the ECB focused the least on the labour market narrative stressing profit-driven inflation the most. Here we can see more clearly how embracing a particular narrative narrows the feasible set of policies. The ECB was the last central bank of the three to raise rates and the first to loosen the tightening cycle. If inflation is attributed to temporary exogenous shocks, or to firms' profit-driven behaviour, then there is logically a smaller role for interest rates to influence inflation. This would not be the case if the ECB had decided that the labour market was the main source of inflation. This allows us a more nuanced view of the relationship between narratives and policy action compared to what we saw at the BoE. While such narratives may have not been determinant in influencing which central bank would move first, they might have played a role in shaping the length and intensity of the policy cycle and the policy response.

Third, the Fed and BoE's stronger focus on the labour market narrative could explain why these two central banks have been more reticent in cutting rates. The direction of causation could go either way, however. One possible reason these central banks delayed lowering rates is concern over labour market overheating, although other factors likely played a role. Future studies could better explore, for instance through interviews to the relevant actors, why central banks decided to back a certain narrative in lieu of the others.

Fourth, this study suggests that despite the large body of theory upon which modern central banking rests, when inflation showed up the 'guardians' in the monetary temples were open to and influenced by the external debate around inflation. They looked for evidence of existing theories that populated the inflation debate. But to their credit, when they failed to find them, they did not cling stubbornly to preconceived notions. Instead, they explored other possible causes, considering alternative explanations and integrating them into a more nuanced perspective of what the inflation was caused by and what to do about it. But to their credit, when they failed to find them, they explored other possible causes and creatively combined them into their own particular version of what the inflation was caused by and what to do about it.

Notes

1. American economist Larry Summers was one of the main proponents of this narrative, when he claimed that the Biden stimulus would have 'set off inflationary pressures of a kind we have not seen in a generation'. See John Cassidy, 'Is Larry Summers Really Right About Biden and Inflation?', *New Yorker*, April 8, 2022, https://www.newyorker.com/news/our-columnists/is-larry-summers-really-right-about-inflation-and-biden.
2. Hale *et al*. (2023) find that only fiscal measures supporting consumers were inflationary, and not those supporting firms.
3. The Fed cut its policy rate and the Fed funds target rate in March 2020. It also implemented credit programmes to support firms and households. In the same month, the ECB expanded its asset purchase policy started in 2014 by launching the Pandemic Emergency Purchase Programme (PEPP), a temporary asset purchase programme worth EUR 1,850 billion
4. 'Windfall corporate profits' is a technical concept that refers to those excess profits stemming from unexpected events (e.g., pandemics, natural disasters, wars). Excess profits are the profits that exceed normal profits (the minimum profits required for earnings). For more details, see Hebous *et al*. (2022).
5. It should be noted that while windfall taxes, such as the ones put in place by several EU governments to tax energy companies and banks, also target firms' excessive profits, they are ex-post interventions that do not aim at reducing inflation, but rather at redistributing the benefits of abnormal profits seized by certain firms to the rest of the economy.
6. A study by the New York Fed provided evidence in favour of the fiscal stimulus view, showing that fiscal policy contributed half or more of the increase in aggregate demand (Di Giovanni *et al*. 2023). Similarly, an analysis by the San Francisco Fed estimated that the US stimulus may explain the inflation gap between the US and other countries in the first half of 2021. However, the study also acknowledges that this estimate is obtained with considerable uncertainty given the sample size (Jorda *et al*. 2022) Other analyses of the American Rescue Plan reached similar conclusions highlighting that the spending programme could have had inflationary effects, but acknowledged the uncertainty around the magnitude of such effects (Blanchard 2021, Edelberg and Sheiner 2021). By contrast, a study by the International Monetary Fund (IMF) showed that in Europe unconventional fiscal policies had 'limited effects on raising inflation' and 'instead modestly helped to stabilize longer-term inflation expectations' (Dao *et al*. 2023, page 1).
7. A study by the International Monetary Fund showed that wage-price spirals are historically rare episodes (Alvarez *et al*. 2022), while evidence from the US shows that wages had a marginal role in pushing inflation in 2021 (Shapiro 2023, Blanchard and Bernanke, forthcoming, Hansen *et al*. 2023).
8. This is consistent across studies that decompose consumer prices indexes between demand and supply driven factors (Blanchard and Bernanke 2024, Gonçalves and Koester 2022, Shapiro 2023). These studies find that supply-driven factors account for only part of the inflation dynamics. For instance, Shapiro (2023) shows that supply factors explain about half of the price increase, while demand factors account for one-third of it, and the remainder stems from ambiguous factors.
9. Yearly inflation rates from the IMF: https://www.imf.org/external/datamapper/PCPIPCH@WEO/LTU/EURO/EU
10. https://www.ecb.europa.eu/press/key/html/downloads.en.html

11. https://www.bankofengland.co.uk/sitemap/speeches
12. https://www.federalreserve.gov/newsevents/speeches.htm
13. For reasons of space the technical appendices of this paper can be obtained from the authors on request.
14. It is important to note that sentences can belong to multiple narratives simultaneously.
15. We explored different window sizes, and none of these changes altered our substantive conclusions.
16. Targeted spending programmes refer to policies targeted to certain segments of the economy with the aim of mitigating the impact of higher rates, but not necessarily with the aim of directly mitigating inflation. For instance, one programme could be to introduce subsidies to help citizens or firms to cover the costs stemming from higher prices. This policy does not reduce inflation per se, but it reduces the side effects of higher prices and borrowing costs for targeted segments of the population.
17. Randall K. Quarles (2021) observed that 'if [supply] shortages persist into 2022, people may adjust their expectations higher for future inflation, which could make above-target inflation more persistent that we currently expect'.
18. Fed's Christopher J. Waller (2022) noted that 'With appropriate monetary policy, and the expected easing in supply constraints, I am hopeful inflation will move down over the course of this year, even with the recent geopolitical developments'.
19. ECB Vice-President Luis de Guindos (2023) observed that 'Russia's invasion of Ukraine in early 2022 pushed up commodity prices further, leading to an energy inflation rate of 44.3% year on year in March 2022, unprecedented in euro area history'.
20. In March 2023, the ECB Chief Economist Philipp Lane (2023) stated that 'the decline in inflation has been primarily due to the easing of some temporary inflation pressures, most notably the remarkable decline in gas prices in recent months'.
21. We report the detailed results of this analysis in Appendix III, which is available from the authors on request.

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