

Out of the fog?

Inflation in an era of ECB policy reversals



External author:

Pierre SIKLOS

Supporting monetary policy scrutiny



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Abstract

The ECB has orchestrated a U-turn in monetary policy since July 2022. However, inflation remains a considerable distance away from its medium-term objective. The ECB relies too heavily on data dependence and uncertainty in communicating monetary policy to markets and the public. It also fails to acknowledge the inherent tensions between monetary and financial stability policies. The current hawkish stance is appropriate but leaves the ECB open to more credibility losses should tail risks emerge.

This document was provided by the Economic Governance and EMU Scrutiny Unit at the request of the Committee on Economic and Monetary Affairs (ECON) ahead of the Monetary Dialogue with the ECB President on 20 March 2023.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

AUTHOR

Pierre SIKLOS, CASE – Center for Social and Economic Research

ADMINISTRATORS RESPONSIBLE

Drazen RAKIC

Giacomo LOI

EDITORIAL ASSISTANT

Adriana HECSER

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

The Economic Governance and EMU scrutiny Unit provides in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact Economic Governance and EMU scrutiny Unit or to subscribe to its newsletter please write to:

Economic Governance and EMU scrutiny Unit

European Parliament

B-1047 Brussels

E-mail: egov@ep.europa.eu

Manuscript completed in February 2023

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This document was prepared as part of a series on “Prospects for monetary policy one year into the war in Ukraine”, available on the internet at:

<https://www.europarl.europa.eu/committees/en/econ/econ-policies/monetary-dialogue>

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LIST OF ABBREVIATIONS

AC	Monetary Policy Account (ECB)
APP	Asset purchase programme
ECB	European Central Bank
ESDC	Euro area sovereignty debt crisis
GC	Governing Council
GDP	Gross domestic product
GFC	Global financial crisis
HICP	Harmonised index of consumer prices
PEPP	Pandemic emergency purchase programme
PR	Press release (ECB)
PS	Policy statement (ECB)
QE	Quantitative easing
QT	Quantitative tightening
TLTRO	Targeted longer-term refinancing operations
TPI	Transmission protection instrument
USD	US dollar

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EXECUTIVE SUMMARY

- **July 2022 marks an end of an era (“zeitenwende”) in monetary policy in the euro area.**
- Instead of “leaning against the wind” the ECB waited too long but eventually switched to becoming pre-emptive in changing the stance of monetary policy. The ECB continues to pay the price for this strategy.
- Data dependence and uncertainty are over-used terms in Governing Council press releases and press statements. This strategy further clouds the public’s understanding of what drives the ECB’s monetary policy.
- The current economic and geopolitical environment has some unprecedented features. However, the conditions the ECB faces are not entirely new, as sometimes claimed.
- The ECB must be more forthcoming about the destination of the current monetary policy tightening phase. This need not mean giving a precise value for the policy rate. Historical comparisons, however, can help and this paper offers one such example.
- The ECB must confront a series of “gaps” it is not always equipped to deal with. They include gaps in consumer and business confidence, gaps in inflation and long-term interest rates, and gaps in credit conditions in the euro area.
- Tail risks appear under-appreciated. These include the challenges and the prospect of another U-turn if the war in Ukraine leads to more deteriorating economic conditions.
- The ECB finds itself in the challenge of navigating monetary policy out of the fog. The good news is that ECB policy has the potential to perform effectively and restore confidence in the institution.

1. INTRODUCTION: ANOTHER “ZEITENWENDE”?

In February 2022, a mere seven months after the European Central Bank (ECB) announced the Governing Council’s (GC) unanimous approval of the new policy strategy centred around a 2% symmetric inflation objective,¹ the Russian invasion of Ukraine began. Amid the continuing policy and health-related challenges around the COVID-19 pandemic, a new “shock” emerged that would roil the global economy and, arguably, the euro area economy more than others outside the single currency area. If the economic crisis occasioned by the pandemic did not merit the appellation of a “zeitenwende”,² surely a war on the European continent would produce just such another turning point. As if this were not enough, central banks would soon experience their own “zeitenwende” and dramatically reverse course from the previous regime of interest rates remaining lower for longer.

The whipsaw in the behaviour of inflation that eventually prompted the tightening of monetary policy was there for everyone to see. The first turning point in harmonised index of consumer prices (HICP) inflation that might have raised the alarm took place in December 2020, when a very mild deflation of -0.3% turned into 0.7% inflation by January 2021³. We would have to wait until June 2021 for headline inflation to hit 2%. Month-to-month inflation rates, clearly more volatile than annualised rates, were nevertheless in persistently positive territory by 2021 and the monthly inflation rate hit 3.6% by May 2021⁴. Yet, at its July 2021 meeting, the GC maintained the need for a persistently accommodative stance. It took until July 2022 to formally change the course of monetary policy. Instead of “leaning against the wind” in anticipation of much higher future inflation, the ECB, as did other major central banks, chose to wait until inflation was unacceptably high before acting. Such were the early signs of the debate that would eventually rage around transitory versus permanent increases in inflation.

There were other early warning signs (e.g., see Siklos, 2022, Figure 3). Nevertheless, as Lane (2022), the ECB’s Chief Economist, would exhaustively report on in November 2022, the real problem is that the ECB and the economics profession more generally are still trying to come to terms with estimating the respective shares in the surge in inflation due to supply constraint versus a rebound in demand once euro area economies began to fully re-open in earnest during 2022. Complicating matters still further were significant changes in the composition of consumption, first from services to goods as the COVID-19 pandemic persisted and back to services once pandemic restrictions eased. On top of everything was the energy price shock triggered by the war in Ukraine. Once it became clear to the monetary authorities that their credibility and institutional trust were severely threatened, they pivoted sharply neglecting to acknowledge their own role in creating the inflation problem. Suddenly, “leaning against the wind” was adopted both to reduce inflationary pressures as well as prevent the un-anchoring of inflation expectations.

Fast forward to the present, and while not exactly declaring victory, the ECB is touting its tightening stance toward the normalisation of interest rates, undefined, while continuing to pursue a “data-dependent” strategy in setting the stance of monetary policy. The failure to follow a forward-looking approach to monetary policy does not inspire confidence. Despite Lane’s (2022) contention that “a proper assessment of the likely future path of inflation is best conducted in the context of a comprehensive macroeconomic projection exercise” (op.cit., p. 49), we are seeing a central bank that wants it both ways. That is, changing its mind when the facts change, not an unreasonable position

¹ See the 8 July 2021 press conference held in Frankfurt announcing the results of the monetary policy strategy review, <https://www.ecb.europa.eu/press/pressconf/2021/html/ecb.sp210708~ab68c3bd9d.en.html>.

² Zeitenwende is the German expression for a turning point uttered by Chancellor Olaf Scholz on 27 February 2022, three days after Russia began to invade Ukraine.

³ The figures are based on annualised inflation rates using monthly HICP data. Data are from the ECB’s Statistical Data Warehouse, <https://sdw.ecb.europa.eu/>.

⁴ Based on the monthly inflation rate between April and May 2021.

given the circumstances, but failing to stand by a policy strategy that demands policy makers also to act in a forward-looking manner if they hope to credibly reach the 2% objective within a reasonable time horizon. Equally important, the ECB has not articulated why rapid tightening will be enough to reduce inflation to acceptable levels when a substantial portion of it is due to supply factors which are outside the scope of monetary policy.

As a result, financial markets and households are left navigating somewhat in the dark waiting for the ECB to provide some guidance out of the fog. The good news is that the euro area and global economies may well be more resilient to shocks than previously thought. Of course, history need not repeat itself in the event of a major new shock that will test the global economy's ability to withstand it. While acknowledging that the risks to the global economy are tilted to the negative, the latest update to the World Economic Outlook (IMF, 2023) does paint a less dire picture than just a few months ago.

Also commendable is the concerted effort by major central banks around the world to exit from ultra-low interest rates that were in place for too long. There will be another occasion to revisit not only the record of quantitative easing (QE) but to assess the symmetry of quantitative tightening (QT). For the time being, the ECB should attempt at quantifying economic resilience and incorporating alternative macroeconomic stress test scenarios while rightly insisting that the outlook must always be conditional. Nevertheless, the ECB should be more forthcoming about the destination, let's call it normalisation of monetary policy, even if we cannot be certain when or how we will get there or what normal looks like. Conditionality can be carried out successfully even if it means changing your mind when the economic environment does not develop as expected. After all, there is a war going on, and geopolitical risks that are difficult to forecast while inflation dynamics remain less well understood than we would like to.

As we mark a tragic one-year anniversary since the war in Ukraine began, the "realpolitik"⁵ remains that the war Russia started seemingly shows no sign of abating. Indeed, as this is written, there may well be a new surge in fighting and more unknowns about the patience and steadfastness of the Western powers to manage the conflict. There is nothing wrong with a central bank that states it will do the best that it can and will learn from past mistakes. The latter must be acknowledged in a more fulsome manner⁶. The former requires more than humility. It requires educating financial markets and the public not only about the limits of monetary policy but the role of fiscal policy and elected governments to shoulder their responsibilities. There is a good reason economists⁷ and policy makers^{8,9} have, for decades, written about the critical role of the fiscal-monetary policy mix.

The rest of the paper is organised as follows. The next section explores three related issues. First, I identify gaps that will challenge the ECB's ability to reduce inflation and restore normalisation in monetary policy. I also explore the significance of persistence in inflation as this feature of the data presents a significant roadblock that may further threaten the credibility of the ECB. Overall, the conclusion reached is that the medium-term outlook is cloudy. That said, there are some silver linings

⁵ This refers to politics based on purely practical considerations as opposed to, say, moral ones.

⁶ Consider the following response by GC Board Member Isabel Schnabel in an interview with the Frankfurter Allgemeine Zeitung (FAZ) in December 2022. "Did the ECB make any mistakes during this process [in deciding to change the course of monetary policy]? We underestimated the persistence of inflation and initially did not take the signs of higher inflation seriously enough – not least because we were coming out of a phase in which the main risk had been that of too low inflation. But let's not forget that there was great uncertainty owing to the recurrent waves of the pandemic. There was concern that premature action by monetary policy might unnecessarily push the economy into another recession." The concern expressed here is not a new one but is one that central banks are expected to navigate.

⁷ See e.g. Orphanides (2020), <https://academic.oup.com/economicpolicy/article/35/103/461/5873157>

⁸ See speech by ECB Vice-President Luis De Guindos on 29 September 2022, https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp220929_1~99e5e3455a.en.html

⁹ See speech by the President of the Bank of Portugal Mario Centeno on 29 September 2022, <https://www.bis.org/review/r221003f.htm>

in the outlook. Section 3 explores the tensions inherent in the narrative that the ECB is portraying to the public. Sadly, the central bank will not be able to successfully navigate through all tensions. However, it can attempt to mitigate their effects. Questions about the ECB's communication and some suggestions for improvement are also made. The paper concludes with a summary and a reminder of unresolved questions about the future of monetary policy the ECB will have to confront.

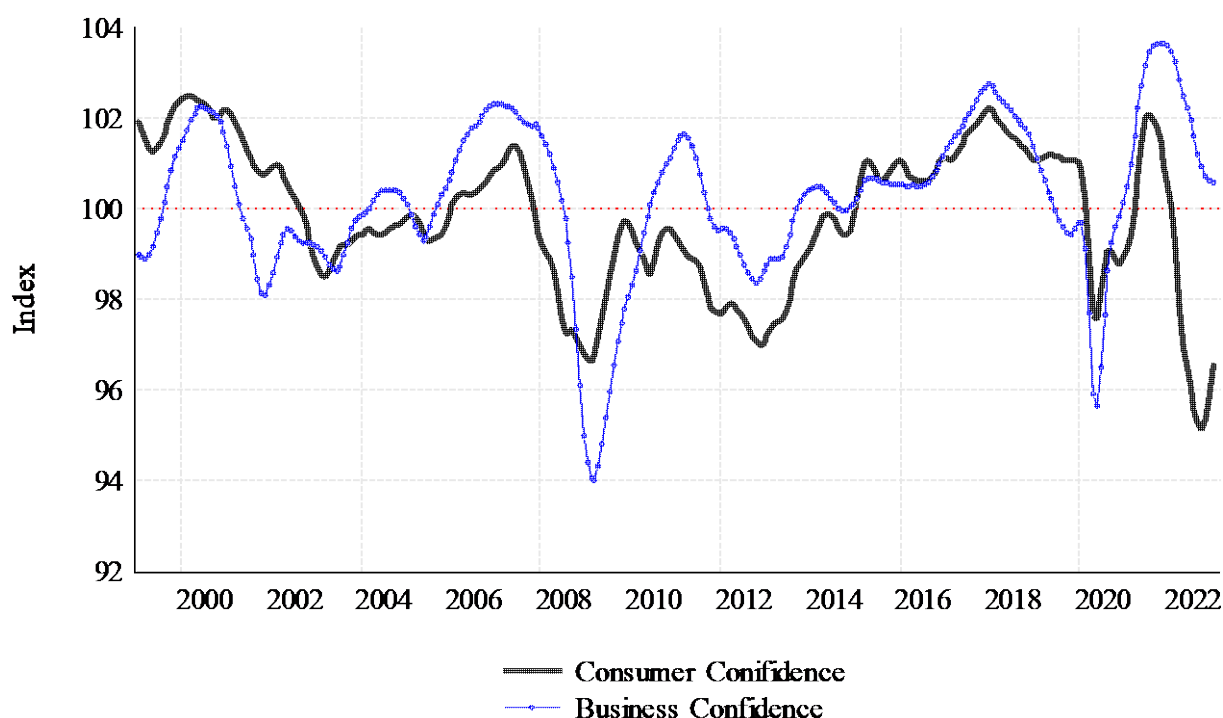
2. THROWING COLD WATER ON OPTIMISM?

2.1. Mind the gaps

To some extent, the mood in early 2023 is hopeful. Inflation has begun to recede since its peak in October 2022 when headline inflation reached 10.6% in the euro area. Since then, the inflation rate has fallen to 8.6% by the end of January 2023¹⁰. The latest GC decision¹¹ (2 February 2023) has not yet claimed victory over inflation and instead has chosen to double down on its determination to raise policy rates to assist in the return to its 2% medium-term objective as soon as possible. Finally, although energy prices have moderated since their peak in 2022, they remain, in some cases, considerably elevated relative to pre-pandemic levels¹².

If the foregoing developments represent the tailwinds that will lead to a return both to low and more stable inflation, together with a normalisation of interest rates, there are plenty of headwinds standing in the way. These can be broadly divided into two parts, namely factors over which the ECB has some influence, and ones that generate shocks the ECB must respond to and on which it likely has no influence whatsoever on. This section deals with the first set of factors which are expressed in the form of gaps to be defined below. The next section deals with the factors that are likely to cloud the outlook for the foreseeable future.

Figure 1: Euro area consumer and business confidence indicators



Source: OECD Main Economic Indicators.

Notes: 100 is the “long-term average”. An indicator above 100 represents a rise in consumers’ confidence about future economic conditions, and vice-versa when the indicator is below 100.

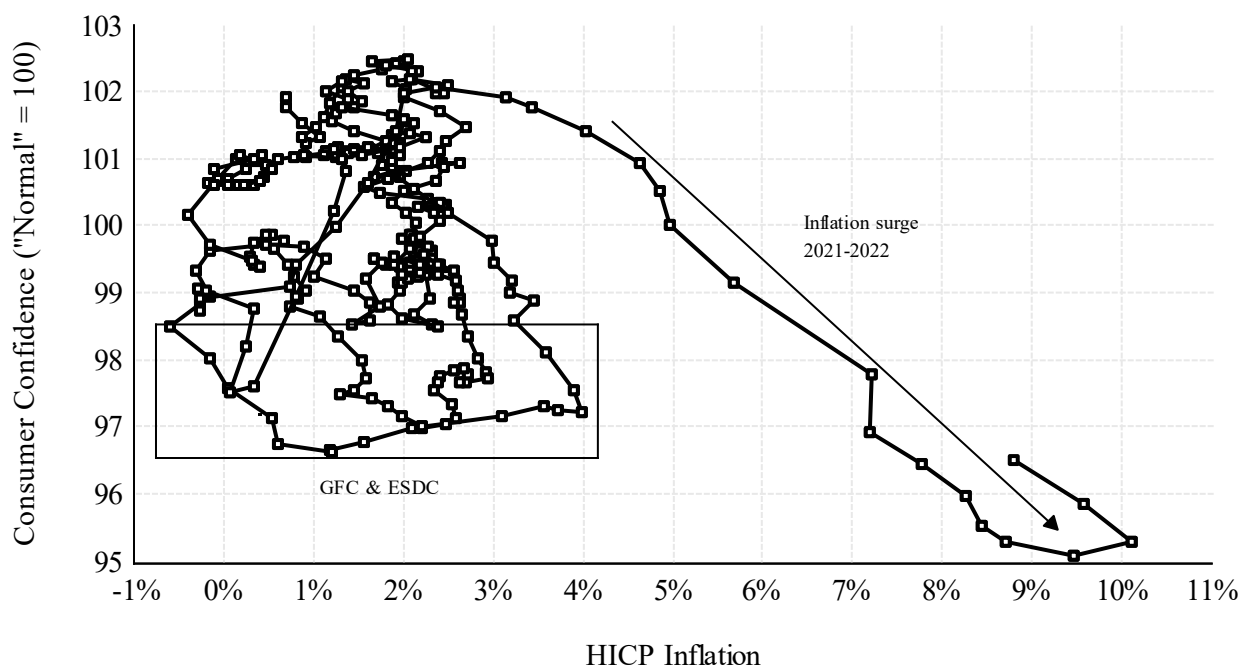
¹⁰ The source for these figures is the same as listed in footnote 3.

¹¹ See press release: <https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.pr230202~1a4ecbe398.en.html>

¹² For example, West Texas Intermediate price per barrel was USD 76 at the end of December 2022 and stood at USD 60 per barrel in December 2019. Global Natural Gas prices for the EU were USD 29 per million metric BTU in December 2022 but USD 5 in December 2019. Alternatively, Henry Hub natural gas prices were USD2.2 in December 2019 but USD5.5 in December 2022. Data are FRED (Federal Reserve Bank of St. Louis) Database, <https://fred.stlouisfed.org/>.

Figure 1 plots two measures of economic sentiment, namely the Organisation for Economic Co-operation and Development (OECD)'s consumer and business confidence indicators. What is most striking about the indicators shown in Figure 2 is when and how much they diverge from each other, that is, the gap between consumer and business sentiment about the future¹³. Most of the time, since the ECB was created, movements in the indicators generally parallel each other. Notice, however, that there are three notable exceptions. The first one, of course, is the global financial crisis (GFC) of 2008-9, with the gap persisting through much of the euro area sovereign debt crisis (ESDC) of 2010-13. There is another temporary but noticeable gap when the pandemic erupts in early 2020. In each of these cases, even when there is a gap the confidence indicators almost always point in the same direction, namely in the direction of a downbeat view of the future. However, beginning in 2022, while business confidence sees better economic conditions in the future, consumer confidence is at the most pessimistic level since the launch of the common currency.

Figure 2: Consumer confidence and inflation in the euro area



Source: See Figure 1 for consumer confidence. HICP annualised inflation, constructed from monthly data, is from the ECB's Statistical Data Warehouse, <https://sdw.ecb.europa.eu/>.

Notes: The rectangular box highlights the periods of the GFC and ESDC. HICP inflation is annualised rate of change in prices estimated as 100 times the fourth order log difference in the level of HICP.

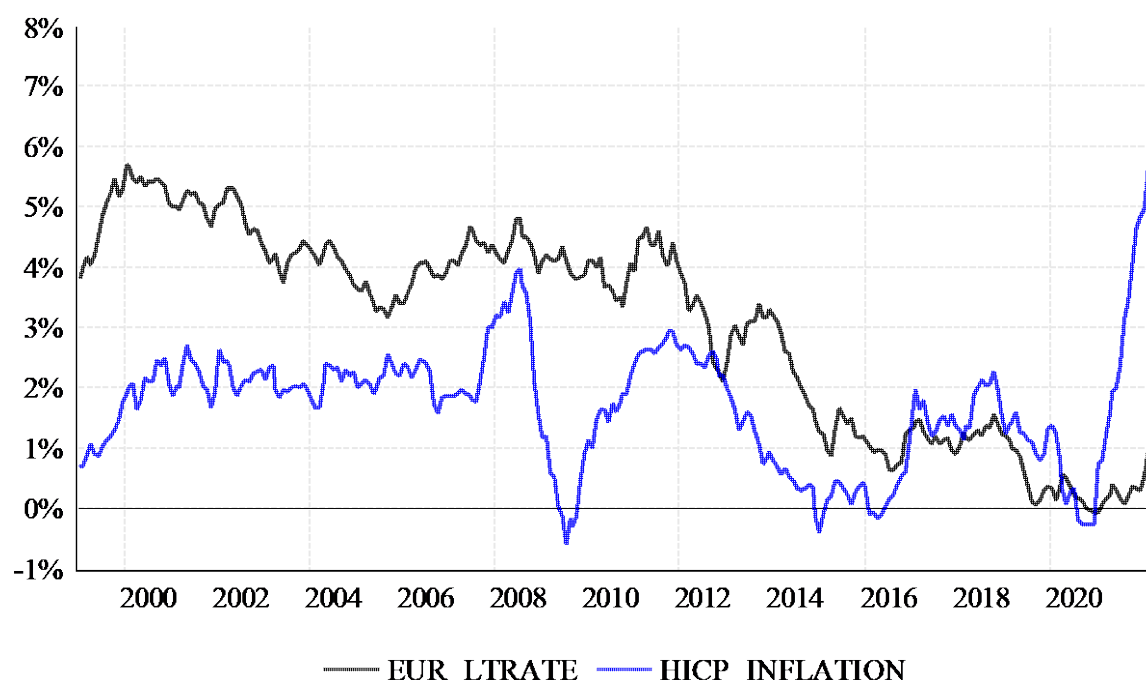
There is a start towards a convergence of sorts in the two indicators, but it is, of course, unclear whether the two will meet above or below the dividing line between optimism and pessimism. If the indicators end up below 100 in the coming months this will test the public and politicians' patience with the ongoing tightening of monetary policy, calling into question the current hawkish tone of the central bank. Figure 2 plots consumer confidence against inflation. What stands out is how sharply and quickly confidence in the outlook deteriorated once inflation begins to surge in 2021-22. Indeed, the drop in confidence is remarkable especially when it is compared to the GFC and ESDC periods.

A second gap is the one seen in Figure 3 which shows the interest rate on long-term bonds in the euro area and HICP inflation since the single currency was introduced. Normally, the textbook description of movements in long-term interest rates is that, if they are seen as an average of sorts of short-term

¹³ The source of the divergence is, of course, the shifting balance between demand and supply factors that generate inflation. See, for example, Pasimeni (2022), and Di Giovanni et. al. (2022).

interest rates, higher expected inflation will raise the yield on long-term bonds, and vice-versa. This is a distilled version of the so-called expectations hypothesis of the term structure. An alternative interpretation is that if forward-looking financial markets perceive the ECB's commitment to reduce inflation not to be credible, then long-term yields will rise. Normally, the gap between the two lines provides a measure of the real interest rate, although one must also consider that, since there exist a variety of risks in holding long-term instruments, an unobserved risk premium is also part of the equation. Nevertheless, the patterns shown since 2020 represent a classic illustration of an inflation scare¹⁴.

Figure 3: Inflation and the long-term interest rate in the euro area



Sources: for HICP_INFLATION is same as in Figure 2. EUR_LTRATE is the 10-year benchmark yield on government bonds. Data are from FRED (Federal Reserve Bank of St. Louis Economic Database), series <https://fred.stlouisfed.org/series/IRLTLT01EZM156N>.

Notes: see note to Figure 2.

In any event, by the middle of 2021, the gap between the two lines, which had been mostly negative since mid-2016 (i.e. suggestive of a negative long-term real interest rate), becomes wider. Despite the very recent decline in inflation (difficult to see from the monthly data at the end of the sample), there are no signs that financial markets have yet been persuaded that inflation expectations will decline as sharply as inflation has risen. Hence, the ECB's credibility is being questioned. To be sure there are other indicators but, as illustrated in Table 1, also the European Commission, and it is not the only institution, is not especially optimistic about inflation even in 2024, while growth prospects look poor in 2023 and are middling at best for 2024¹⁵. Indeed, the downward revisions in growth for 2023 and the large upward revisions for the same year in the European Commission's forecasts suggest a companion gap to the one displayed in Figure 3.

¹⁴ The classic inflation scare idea, namely that long-term inflation expectations become un-anchored from a central bank's inflation objective is usually associated with Goodfriend (1993). Georgarakos et al. (2023) have recently admitted, relying on the ECB's Consumer Expectations Survey, that medium-term expectations have become less well anchored. The near future will inform us whether these will have breached the threshold from less well anchored to unanchored.

¹⁵ The Winter 2023 edition of the European Commission's forecasts improvement but these are marginal at best. https://ec.europa.eu/commission/presscorner/detail/en/ip_23_707. The ECB's own projections could also have been used to make a similar point. See, <https://www.ecb.europa.eu/mopo/strategy/ecana/html/table.en.html>.

Table 1: Economic forecasts: Select euro area Member States and the euro area

	2020		2021		2022		2023		2023		2024	
	G	INF	G	INF	G	INF	G	INF	G	INF	G	INF
Germany	1.0	1.2	1.0	1.4	4.6	2.2	1.7	1.7	-0.6	7.5	1.4	2.9
Spain	1.5	1.1	1.4	1.4	5.5	2.1	4.4	0.7	1.0	4.8	2.0	2.3
France	1.3	1.3	1.2	1.3	3.8	2.1	2.3	1.4	0.4	4.4	1.5	2.2
Italy	0.4	0.8	0.7	1.1	4.3	2.1	2.3	1.4	3.8	8.7	0.3	6.6
Netherlands	1.3	1.4	1.3	1.5	3.3	2.2	1.6	1.5	0.6	4.2	1.3	3.9
Euro area	1.2	1.2	1.2	1.3	4.3	2.2	2.4	1.4	0.3	6.1	1.5	2.6

Sources: European Commission Economic Forecast, Autumn 2019, Autumn 2021, and Autumn 2022 editions. See https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts_en. The forecasts are for the calendar year in question. The two forecasts for 2023 are from two consecutive editions of source listed above. The Autumn 2019 edition (pre-covid) is used to show forecasts for 2020, 2021; the Autumn 2021 edition is used for 2022, 2023 forecasts and the Autumn 2022 edition is used for the second set of 2023 and the 2024 forecasts.

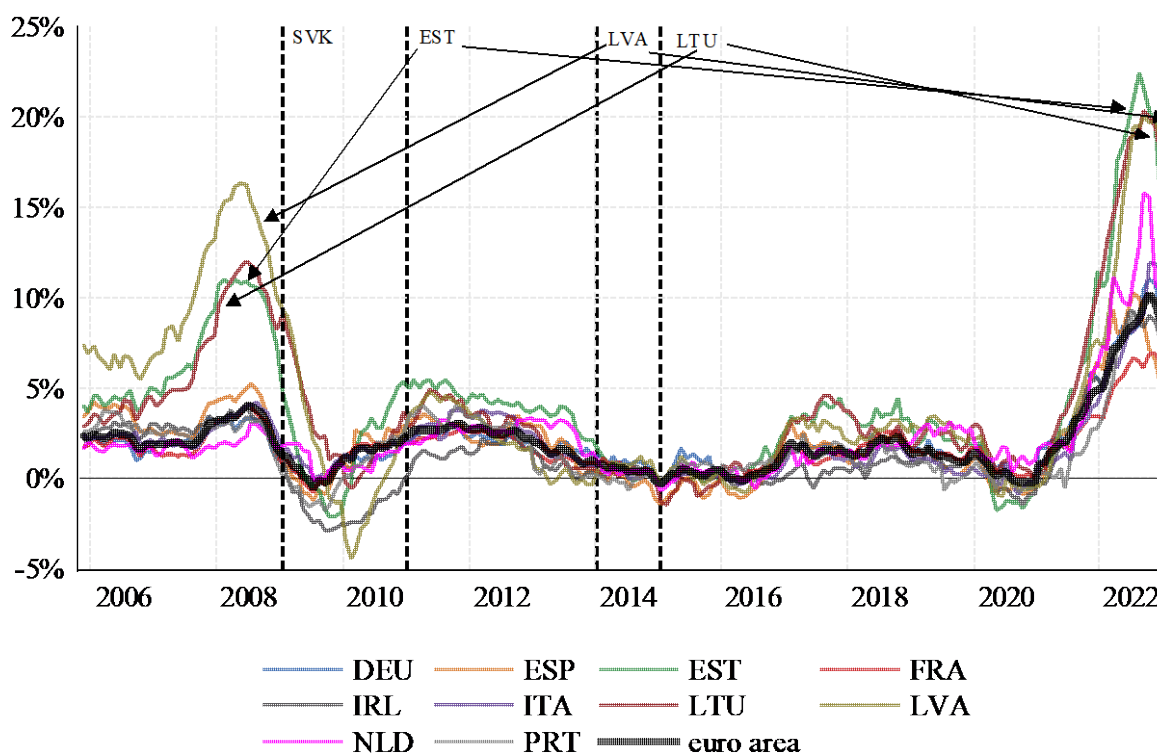
Note: G is the annual growth in real GDP; INF is the annualised HICP inflation rate.

Figure 4 illustrates the gap in inflation rates between euro area Member States. The gap between inflation in the Baltic states and much of the rest of the euro area is at levels last seen well before Estonia, Lithuania, and Latvia adopted the euro. Indeed, the inflation gap, or spread, is significant because it remains large even as inflation shows early signs of declining, as shown in Figure 4. Of course, the response is that the ECB can only carry out a single monetary policy. The problem, however, is not one that involves only monetary policy, at least not immediately. Instead, it is potentially a political problem for the ECB and may even become a financial stability problem not that different from the mini crisis faced in 2020 when the spread between German and other yields, especially the Italian ones, rose sharply. ECB President Lagarde's reaction ("The ECB is not here to close spreads"¹⁶) was well known, as was the ECB's U-turn shortly thereafter ("We will absolutely fight fragmentations in markets"; Clinch, 2020). Since inflation has a way of showing up in interest rates, this is also a gap worth considering¹⁷.

¹⁶ See Press Conference after the 12 March 2020 Governing Council meeting <https://www.ecb.europa.eu/press/pressconf/2020/html/ecb.is200312~f857a21b6c.en.html>.

¹⁷ Gern et al. (2022) in a recent Monetary Dialogue paper also investigate inflation gaps noting the poor position of Baltic states. That said, the authors' conclude that gaps in core inflation do not appear out of the ordinary. Blot et al. (2022) in the same Monetary Dialogue series of papers reach a similar conclusion. Even if this is the case the political economy problem noted here potentially remains. Elected governments may well ask what are the benefits of a single monetary policy that permits large variations in inflation without some political mechanism that mitigates the economic impact of such divergences.

Figure 4: Selected inflation rates in the euro area

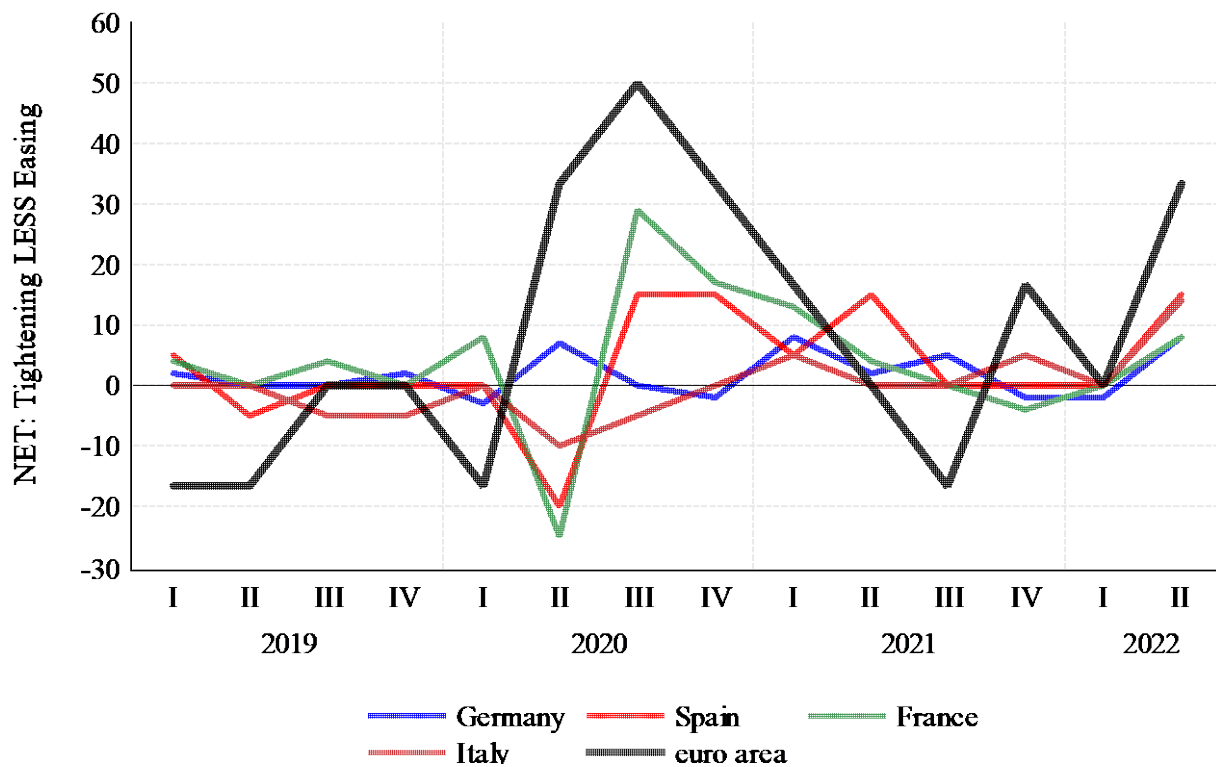


Source: Same as for Figure 3.

Notes: HICP inflation is calculated as explained in the note to Figure 3. The three letter ISO-code identifies the countries examined. DEU=Germany, ESP=Spain, EST=Estonia, FRA=France, IRL=Ireland, ITA=Italy, LTU=Lithuania, LVA=Latvia, NLD=The Netherlands, PRT=Portugal. The vertical dashed lines show the year the euro was introduced in the countries shown in the Figure.

Yet another gap is illustrated in Figure 5 which shows the forward-looking (i.e. 3 months ahead) expectation on the part of senior loan officers about whether they perceive a tightening or loosening of credit conditions. The data in Figure 5 represent an overall measure of net conditions for all enterprises in Germany, Spain, France, Italy, and the euro area¹⁸. Conditions were reasonably neutral before the pandemic erupted in 2020 and tightened sharply during the first two quarters of the same year everywhere. The tightening in the euro area as a whole was however especially sharp. Germany was the only exception. Thereafter, the pandemic emergency purchase programme (PEPP) undoubtedly contributed to loosen lending conditions to enterprises. However, as inflation's grip tightened in 2021, net conditions rose sharply in all countries shown beginning in 2022. Yet, the rise is most pronounced in the single currency area. The combination of tightening and QT is likely to lead to more tightening of lending conditions. The net tightening indicator for the euro area is already approaching levels reached when the pandemic raged and is already close to levels attained during the ESDC. Only the era of the GFC dwarfs by a wide margin the data shown in Figure 5.

¹⁸ Several other similar surveys exist such as ones covering major forms of lending to households, as well as ones that distinguish between supply and demand for loans. After some neglect the critical importance of these surveys is now widely accepted by academics and central bankers. See, for example, Filardo and Siklos (2020) for recent international evidence.

Figure 5: Bank Lending Survey: Overall for enterprises

Source: ECB Bank Lending Survey, ECB Statistical Data Warehouse, <https://sdw.ecb.europa.eu/>.

Notes: The data show the 3-months ahead expectation of bank senior loan officers. Those who believe conditions will be looser provide a negative value while positive values signal tightening. The NET value is the difference between net tightening and loosening expectations.

While the gaps discussed above need not mean that the fight against inflation will ultimately be unsuccessful, they do suggest multiple threats. The ECB is, by Treaty, considerably more autonomous than other major central banks but it can only use moral suasion to keep fiscal policy from further complicating the task of inflation control. Furthermore, even if the principal task of the ECB is inflation control, it cannot ignore a major downturn if it were to emerge. As Table 1 illustrates, the margin between low, but positive, growth and negative or recessionary growth is a small one.

Unfortunately, beyond the immediate threats from the gaps discussed in this section, there are other short- to medium-term threats to inflation and the economic outlook more generally. I turn to those next.

2.2. The outlook is cloudy

It comes as no surprise that the ongoing war in Ukraine is the short- to medium-term issue that most clouds the outlook. From a purely economic perspective, the war creates conditions for more domestic spending. Some of this is in the form of military spending. According to the World Bank's Development Indicators, military spending as a percent of GDP has fluctuated relatively little in the EU since at least 2007 when it reached 1.45%, while the same figure for 2021, before war in the Ukraine began, was 1.53%. In the case of the United States, the same figures are, respectively, 4.08% (2007) and 3.48% (2021)¹⁹. In the case of Ukraine, the US Council on Foreign Relations estimates that almost USD 23 billion (equivalent to approximately EUR 21.8 billion) has been sent by the US in military aid while essentially

¹⁹ The World Bank Development Indicators can be found at <https://databank.worldbank.org/source/world-development-indicators>.

the same amount has been sent in various other forms (i.e., humanitarian and financial assistance; see Masters and Merrow, 2022). In contrast, the EU's military aid is relatively smaller so far, with up to EUR 18 billion committed through macro-financial assistance for non-military purposes in 2023²⁰. Comparisons between the two are difficult since the military is largely the sovereign responsibility of Member States. However, assuming existing pressures on EU governments remain, additional fiscal strains from military expenditures are likely. It may not be an arms race as such, but rather a race that tests supply chains as NATO more generally applies moral suasion to maintain, if not increase, support for the war effort in Ukraine. Whether these developments delay the return to low and stable inflation is unclear. Even if expenditures as a percent of GDP to support Ukraine, remain small, one uncontrollable factor is how business and consumer sentiment will respond to the continuation of the war. Furthermore, potential reconstruction costs are likely to be considerable²¹.

At the time of writing (March 2023), there is renewed hope that the end of China's zero COVID-19 policy will usher in potentially more global growth either in the form of expansion in trade or the stimulus provided by greater openness in travel and commercial arrangements with the outside world. However, it is unlikely that a stimulus program will have positive global spillovers of the magnitude that the global economy benefited from during the GFC. China has its own serious economic challenges beyond the adjustment to living with COVID-19. This is not the place for an analysis of China's potential contribution to global growth in 2023. However, it suffices to say that a combination of geopolitics and domestic economics will severely limit how much added global growth will come from China. The former is linked to ongoing economic tensions between the US and China; the latter is explained by the suddenness and infancy of the ending of the zero COVID policy. On the geopolitical front the movement toward "friendshoring"²², although only in its infancy, is likely to continue. The resulting fragmentation of trade relationships will take years to emerge and its economic impact to be properly understood. Domestically, constraints on growth through infrastructure and real estate are also likely to place limits on domestic growth. The good news is that the outlook by most professional and institutional forecasters, including central banks, is still mainly guided by the remnants of the zero COVID-19 policy²³. Hence, the outlook on this score is not overly optimistic. Of course, this point of view can change as 2023 progresses. Instead, the challenge is preventing policy makers and forecasters from relying on the past behaviour of Chinese policy makers as a guide to the likely positive impact on global growth from China's actions. Regarding inflation we are similarly likely to see little impact in the short-run for the reasons already stated, that is, at first the effects from China's reopening are likely to be muted.

There is at least one more issue that looms large in the medium to longer term and it is one that also impacts countries outside the euro area, namely productivity. Alan Greenspan, former Chair of the Federal Reserve's Open Market Committee (FOMC), made a "great call" (Meyer, 2004) by predicting that the rise in US productivity in the 1990s, explained in large part by technical change in information technology, would permit faster economic growth without triggering higher inflation. Based on the measure of growth in total factor productivity (TFP), that is, how much output is generated based on inputs into production, there has been a slowdown in recent years in many parts of the euro area²⁴.

²⁰ See the press release following the 20-21 October 2022 European Council meeting:

https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6699.

²¹ See, for example, the following two reports by the CEPR: <https://cepr.org/publications/books-and-reports/rebuilding-ukraine-principles-and-policies> and <https://cepr.org/publications/books-and-reports/blueprint-reconstruction-ukraine>.

²² This is the principle whereby supply chains are focused on trade between countries that are political, military or economic allies.

²³ For example, see the blogpost by the IMF's Managing Director Kristalina Georgieva, <https://www.imf.org/en/Blogs/Articles/2023/01/16/Confronting-fragmentation-where-it-matters-most-trade-debt-and-climate-action/>

²⁴ The analysis the follows is based on data up to 2019 from Feenstra et. al. (2015). The data can be downloaded from www.gqdc.net/pwt.

Whereas productivity growth on this score has risen in countries such as Germany, growth has been slow to negative for several years in France and the Netherlands. Even in Germany, TFP growth turned negative by 2019. Indeed, negative TFP growth has been a regular feature in another major economy of the euro area, namely Italy. One bright spot has been Spain²⁵. In contrast, the US has usually done persistently better²⁶. Higher productivity growth is critical since it offers one way to escape the low growth of recent years with the added bonus that it does not threaten the necessary disinflation from current high rates.

Finally, some mention ought to be made about labour market issues. The sharp rise in inflation has naturally led to higher wage demands but it is far too early to conclude that a wage-price spiral is in the offing. On the one hand, job vacancies are rising, ostensibly because of a combination of demographic factors (e.g. retirements) and continuing adjustment to the post-pandemic work life that includes, where appropriate, some balance between work from home and office work²⁷. While central banks have been tempted to speak about wage increases fuelling higher inflation, leading to a backlash²⁸, it is also the case that real wages have not performed well. Indeed, real wages have declined in several countries. If the transmission mechanism of monetary policy works as expected, then the ECB is better off staying out of the fray and let tighter monetary policy via interest rates and QT do the necessary work. Discretion in this case is the better part of valour especially since cost-push inflation ideas, except possibly in the UK, were discredited long ago²⁹. I briefly return to wage growth developments in the next section.

Clearly, there exist a variety of forces that impinge on the ECB and the fiscal authorities' ability to reduce inflation. Some are policy-related, as argued in the previous section, and can be influenced by ECB policy. Others are more medium- to longer-term influences on inflation that are outside the remit of the ECB. Before returning to the ECB's communication since the adoption of a more hawkish tone and tightening of monetary policy, I conclude with some discussion about what can be said on the dynamics of inflation, and the link between headline or HICP inflation and some of its most important constituents.

2.2.1. Inflation, its persistence, and its drivers

A good deal of the controversy over whether policy makers responded too late to the surge in inflation before making a U-turn from ultra-easing to rapid-tightening centred around the behaviour and signals sent by inflation. But which inflation rate? When inflation is low and stable policy makers could focus on headline and core inflation measures as these tend to converge towards each other over time. When the ECB and other central banks did step in to tighten monetary policy, a search began for clues among the various components that make up headline inflation, especially when what appeared to take place in commodity and energy markets began to spread into the rest of the economy. Lane's (2022) exhaustive analysis is a good example of the pivot away from analyses of the macro dimensions of

²⁵ Another potential bright spot is that labour productivity in the euro area, that is real GDP per hours worked, has been recovering quickly, though by the end of 2022 levels remain near or just below ones attained before the GFC or at the start of the ESDC. This interpretation is based on data obtained from the ECB Statistical Data Warehouse.

²⁶ As might be expected, there exists more than one way to estimate TFP growth. For example, for the US, quarterly estimates of TFP growth published by the Federal Reserve Bank of San Francisco (that relies on a different methodology) finds TFP growth turned negative in 2022. The data can be obtained from <https://www.frbsf.org/economic-research/indicators-data/total-factor-productivity-tfp/>.

²⁷ Data from FRED reveals, since approximately 2000, a positive trend in job vacancies in, for example, Germany, France, and Spain. See, respectively <https://fred.stlouisfed.org/series/LMJVTTUVD647S>, <https://fred.stlouisfed.org/series/LMJVTTNVFRM647S>, and <https://fred.stlouisfed.org/series/LMJVTTUVESM647S>.

²⁸ Arguably, the clearest example of central banks asking workers to limit wage demands in order to lessen the chances of a wage-price spiral are the comments made by Andrew Bailey, Governor of the Bank of England, in 2022 in a BBC interview. See Gilchrist (2022).

²⁹ See the early survey by Laidler and Parkin (1975) on demand-pull versus cost-push explanations of inflation.

inflation to its potential micro determinants. Of course, many of these developments can be explained by the early stand the ECB and other central banks took that the initial post-pandemic inflation surge was expected to be transitory. When it emerged that inflation would remain elevated for some time, economists and other observers went back to an old question, namely how persistent is inflation?³⁰

Table 2 considers a very simple but widely used series of tests dealing with the time series properties of various measures of inflation. It should be noted that there are many more indicators that could have been used and other models that could be specified to model inflation. Sadly, the profession is still working with incomplete theories of inflation³¹.

The first set of tests asks how the various indicators of inflation are influenced by their immediate history. The simplest way to model this view is to assume that this year's inflation rate is determined by last year's inflation rate and a residual that is unexplained and, hence, assumed to be zero in average³². There are at least three striking conclusions from the first two columns of test results.

First, other than for energy-related inflation rates, there is a very high degree of persistence in various versions of headline and other indicators of HICP inflation that exclude food, energy, both, or focus on goods, services, and so on. Indeed, in a couple of cases (viz., processed food, HICP excluding energy) there is the hint of explosive behaviour (the estimated coefficient is greater than one) although, in practice, it is unlikely³³.

Second, inflation persistence is subject to breaks, that is when the relationship between current and past inflation changes temporarily. Indeed, in more than half of the cases shown, the break occurs late in the sample, namely in September 2020, while an earlier break is detected in energy prices in July 2020. Given how these tests are constructed³⁴, it would have taken months for a data-dependent central bank to confirm the timing of the breaks. An added complication is that inflation persistence disappears in a couple of cases, namely HICP excluding food and energy prices (i.e. an indicator of core inflation) and in HICP for industrial goods, again excluding energy prices.

Third, all energy inflation indicators (i.e., HICP energy, Global Natural Gas prices, Henry Hub natural gas prices, West Texas Intermediate (WTI) crude and Brent crude prices), while highly persistent and significantly less than the others shown in Table 2, are not subject to any breaks. Nevertheless, the overarching message of the Table is that inflation in its various guises, remains highly persistent even if we allow for interruptions due to large shocks (e.g., COVID-19).

³⁰ There is a long history associated with empirical investigations of the properties of prices. See, for example, Burdekin and Siklos (1999) who also cite the antecedents to their empirical analysis.

³¹ Tarullo (2017), a former Federal Reserve Governor, is one of several central bankers who lamented the absence of a "working theory of inflation". Policy makers occasionally must make pragmatic decisions about how to think about expectations, beyond how theories and models conceive them to be formed, and in part also because they also need to evaluate how responsive the public will be to policy actions and communication.

³² And its volatility is also assumed to be finite.

³³ Separate testing is required to reach a more definitive result (not shown) although explosive behaviour in these prices is highly unlikely. In addition, some estimates can be sample specific.

³⁴ Explanations and discussion are beyond the scope of this paper.

Table 2: Inflation persistence and the inflation process in the euro area: some estimates

Inflation indicator	Persistence		Stationarity	
	Timing of break	Parameter estimate (std. error)	Timing of break	Test statistic (p-value)
HICP - Headline	2020.09	0.97 (.02) 0.99(.03)	2021.12	-3.85(.21)
HICP - Food	None	1.03 (.03)	2022.02	-3.17(.58)
HICP - Processed Food	None	1.05 (.03)	2022.03	-3.62(.32)
HICP - Goods	2020.09	0.97 (.02) 0.98 (.03)	2021.12	-4.11(.12)
HICP – ex Energy	2017.04, 2020.09	0.98 (.02) 1.05(.02)	2022.03	-2.87(.75)
HICP – excl. Food & Energy	2017.04, 2020.09	0.98(.02) 0.09(.22)x	2021.06	-2.51(.90)
HICP – Services	2020.09	0.97(.02) 1.02(.02)	2022.06	-1.82(.99)
HICP – Industrial Goods excl. Energy	2016.07, 2020.09	0.94(.02) -0.35(.13)x 0.99(.04)	2022.03	-2.85(.76)
HICP - Energy	2020.07	0.85(.04) 0.72(.09)	2020.11	-4.87(.01)
Global – Natural Gas	None	0.83(.05)	2020.07	-6.95(.00)
Henry Hub Gas	None	0.75(.04)	2000.12	-7.15(.00)
West Texas Intermediate Crude	None	0.79(.06)	2020.04	-6.54(.00)
Brent Crude	None	0.78(.05)	2019.11	-6.29(.00)

Sources: European Commission Economic Forecast, Autumn 2019, Autumn 2021, and Autumn 2022 editions. See https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts_en.

Note: G is real GDP growth, INF is HICP inflation. Growth rates are annualised. The benchmark model used is an autoregressive model of order one (i.e., AR(1)). The location of breaks is based on the so-called Bai-Perron test (Bai and Perron, 1998). We limit the number of breaks to a maximum of 3, trim the sample by 10% so that no breaks can be found at the first and last 10% of the sample, impose a significance level of 1% to ensure that only major breaks are identified, and limit the breaks to ones that are temporary (i.e., innovation outliers trigger breaks). Tests for stationarity are so-called Dickey-Fuller unit root tests also subject to a single break. The Vogelsang and Perron (1998) test is used with the min- t statistic criterion used to choose the dating of the break. x means that the estimated coefficient is statistically insignificant.

Since levels of persistence in various inflation measures are very high, it is reasonable to ask whether it is more meaningful for policy makers to instead consider *changes* in inflation. Why? The persistence measures suggest the possibility that the statistical properties of the process driving inflation have changed over time. The breaks found in the data so far also point in this direction. Accordingly, the last two columns of Table 2 display a test that asks whether a process that satisfies the desired property just

outlined is better described by considering changes in inflation instead of the level of inflation instead³⁵. The message from Table 2 is clear: all indicators of inflation are processes that have changed over time while energy inflation is the appropriate metric. This conclusion holds even if we allow for a break in the data. It should be noticed, however, that the break occurs very late in the sample whenever it is found except for energy prices where the break takes place in 2019 or in 2020.

What can we conclude? While the ECB might be excused for relying on data dependence before deciding on tightening monetary policy, the very high degree of persistence ought to have tempered the resort to temporary or transitory to describe the dynamics of inflation. Moreover, since the changes in the process describing inflation rates occur late in the sample, this can help explain why the ECB waited too long before changing the course of monetary policy. Nevertheless, the delay in responding to the forces that were underway also reinforces a point made earlier. Data dependence has its place, but a successful central bank first and foremost must be forward-looking. The ECB seems to have failed this test, admittedly a very difficult one to carry out.

Observers can, of course, argue that there are drawbacks to the tests presented above. Indeed, as is the case with all statistical test, there are limitations³⁶. Accordingly, Table 3 presents a different set of tests. Since most, if not all, of the inflation indicators are related to each other, I next ask how some of the key indicators of inflationary pressure are related to each other in a statistical manner. Stated differently, if there exists a combination of inflation indicators that best describes how headline inflation evolves over time, what would it look like? Table 3 shows the factor loadings, that is the statistical relationship between the chosen indicators of inflation. The estimates are predicated on the assumption (supported by other testing not shown) that one can better understand the inflation process by extracting a single factor, we shall call it the inflation factor, that combines the individual components³⁷.

Table 3 indicates first, as did Table 2, that the inflation process experiences substantial changes over time. Second, that the relationship between core and headline inflation as well as the link between inflation in services and HICP inflation has also experienced substantial changes over time. The samples are chosen based on historical events. The first column provides the results for the full sample. The second column for the period before the GFC. The third column combines the GFC and ESDC periods while the last column is the period after the worst of the ESDC has passed until just before the COVID-19 shock.

Note the loadings on HICP excluding food and energy for the full sample and the sub-samples shown. Clearly, the full sample results are largely driven by the post-GFC and ESDC samples. Similarly, the loading for HICP food and HICP services also experience large changes over time. Food plays a lesser role in the inflation factor pre-GFC while core inflation (i.e., HICP excluding food and energy) and HICP services depresses the inflation factor. Both these loading change sharply thereafter. Since the GFC and ESDC, all loadings have been positive, an indication that all the components of inflation considered contribute positively to explaining the inflation factor. Exercises such as the one reported in Table 3 are not uncommon. What is far less common is to examine how the relationship in question evolves over time. If this is not done, policy makers will make incorrect inferences about the dynamics of inflation. And once again, as before, a strategy that relies excessively on data-dependence also increases the risks of policy errors.

³⁵ In more technical terms I am enquiring whether the various inflation measures are stationary in levels or in first differences. If the levels are non-stationary but first differences are stationary, the series in question is said to contain a unit root.

³⁶ Obvious limitations include the following: the tests are univariate (i.e., depend on inflation alone), the first set of tests imposes restrictions on the number and timing of breaks, while the last set of tests is limited to only one break.

³⁷ In technical terms this means extracting the first principal component from the inflation rates shown in Table 3.

Table 3: What drives inflation in the euro area: a factor analysis perspective

Inflation indicator	2000.04-2022.12	2000.04-2008.05	2008.06-2013.02	2014.01-2019.12
	Factor loadings			
HICP – Headline	1.000	0.892	1.000	1.000
HICP – Food	0.842	0.365	0.810	0.791
HICP – Goods	0.991	1.000	0.988	0.992
HICP – excl. Food & Energy	0.862	-0.379	0.499	0.330
HICP – Services	0.712	-0.386	0.333	0.344
HICP - Energy	0.547	0.443	0.321	0.594
Number of observations	277	102	67	72

Sources: European Commission's Economic Forecast, Autumn 2019, Autumn 2021, and Autumn 2022 editions. See https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts_en.

Note: Sub-samples were selected based on arguments discussed in the main body of the paper. Factor loadings are estimated via principal components (Ahn-Horenstein method) using maximum likelihood and restricting the number of factors to one.

3. THE ECB'S WAR ON TWO FRONTS: THE NARRATIVE

It is worthwhile considering the decisions made by the GC since June 2022 as these may provide additional clues about the effectiveness of monetary policy in the current environment. In what follows, the analysis is not based on treating text as data, which has become commonplace³⁸. Instead, I rely on my own interpretation of the underlying tensions that exist between the aims of monetary policy and the desire to maintain financial system stability, based on the press release (PR), and policy statement (PS) that accompany each GC's policy rate decision together with the subsequent account of each meeting³⁹. The aim is to provide constructive criticism of the ECB's approach to policy making.

Of course, there are other candidates for tensions emerging as monetary policy is tightened. The inherent tensions between monetary and fiscal policy, among others to be discussed below, are not new but are likely exacerbated in crisis or near crisis conditions. The Governor of the Bank of England, Andrew Bailey, neatly summarised the essence of some of the challenges central banks face when "events" - get in the way - in the case he cited the set of fiscal policy decisions made by the UK government in the autumn of 2022:⁴⁰ "There may appear to be a tension here between tightening monetary policy as we must, including so-called Quantitative Tightening (QT), and buying government debt to ease a critical threat to financial stability. This explains why we have been clear that our intentions are strictly temporary, and have been designed to do the minimum necessary." (Bailey, 2022). While there is no doubting that the Governor's intentions are clear, the record of central bank interventions since 2008 also suggest that the definition of "temporary", much like the "transitory" label applied to inflation, is elastic. Indeed, as we now see almost everywhere where QE has been implemented, there are often reasons to prolong the policy even if the net benefits are unclear. The same forces that motivated the present rapid rise in policy rates in the euro area and in other industrialised economies are fragile and can easily lead to another U-turn. There is little indication that the ECB is prepared for this eventuality.

Another challenge for central banks is that government interventions and support of energy markets, as well as other forms of income support, however necessary and well intentioned, will create distortions of their own which may suppress inflation in a manner the ECB is unable to predict. For example, one can imagine a surge in demand if the economic and policy uncertainty triggered by the war in Ukraine is, one hopes, quickly removed. Of course, this risks increasing inflationary pressures. The ECB has stated that it is determined to keep interest rates at restrictive levels until "we see that inflation (...) is going back to our target of 2% in a timely and durable manner"⁴¹. However, the interpretation of restrictive is in relation to very recent monetary history and not in terms of the usual metrics of positive real interest rate levels. Moreover, durability is a function of the inflation outlook and, as explained below, only once since June 2022 has the ECB's PR explicitly referred to the direction of change in inflationary expectations in numerical terms.

The argument made below is that, despite the earnest belief on the part of GC members that they have the policies in place to resolve a conflict between monetary policy and financial stability, this tension

³⁸ In other words, I do not apply the growing number of techniques being deployed ranging from simple word counts to machine learning methods to analyse the content of documents.

³⁹ Monetary policy decisions, and related documents, can be found at:

https://www.ecb.europa.eu/press/pressconf/press_conference/html/index.en.html. One has to click on the calendar to obtain the documents associated with each policy rate decision.

⁴⁰ Or, as Andrew Hauser, Executive Director for Markets at the Bank of England put it delicately, the pursuit of QT led to an incident that "has a surprise new chapter." While rightfully celebrating how the Bank of England responded to debacle associated with the government's "Growth Plan", Hauser does not dwell on the fact that the same government swiftly abandoned its plan, thus eventually relieving pressure on the central bank.

⁴¹ From the Bloomberg interview with Isabel Schnabel given on 15 February 2023. See <https://www.ecb.europa.eu/press/inter/date/2023/html/in230217~936be841f2.en.html>.

cannot always be resolved. Other things equal, the implication is that inflation will remain higher for longer and that policy rates will not be sufficiently restrictive especially if the war in Ukraine, and geopolitical risks more generally stand in the way, or monetary and fiscal policies work at cross-purposes. The risks of both eventualities becoming a reality cannot be ignored.

The aforementioned tensions are also reflected in the ECB’s over-emphasis, otherwise known as central bank “speak”, on the concepts of data-dependence and uncertainty to explain its actions. There is the added tension stemming from a desire to bring inflation down to the ECB’s medium-term objective of 2% as quickly as possible, via policy rate rises and QT, while recognising that the economic and financial stresses that are created are unevenly distributed across the single currency area. As a result, the ECB is once again hostage to the moral hazard problem of stating its determination to reduce inflation but not convincing markets that it can or will do so at all costs if the euro area economy deteriorates too quickly and significantly.

Table 4 forms the basis of the main arguments outlined below. Since June 2022 the GC has met six times. July 2022 marks the beginning of the U-turn towards tighter monetary policy.

Table 4: Selected content in GC policy announcements: June 2022 to February 2023

Dates of GC decision	Monetary policy	Financial stability	Tension(s) between the two
9 June 2022	<ul style="list-style-type: none"> ○ Data dependence; mentioned in PS; ○ Conditions are in place for the economy to grow; ○ Forward guidance (FG): Expresses an intention to begin raising the policy rate at the next meeting and raise them in future in a sustained manner; ○ War in Ukraine remains a downside economic risk while upside risks to inflation remain; ○ Wage growth is moderate and expectations are contained; ○ Neither PR nor PS mention the exchange rate. 	<ul style="list-style-type: none"> ● High volatility across all main asset classes; ● Uncertainty permeates financial markets; ● Financial conditions have worsened since December 2021; ● Turning point reached in borrowing conditions. 	<ul style="list-style-type: none"> ▪ Have yet to be explicitly recognised or acknowledged.
21 July 2022	<ul style="list-style-type: none"> ○ Data dependence mentioned in PS but not war in Ukraine; ○ PR increases by 50 not 25 bps, as previously expected; ○ FG: more to come as normalisation of interest rates to continue 	<ul style="list-style-type: none"> ● TPI is subject to conditionality; ● Substantial tightening of financial conditions although they remain favourable. 	<ul style="list-style-type: none"> ▪ How do you square the circle of TPI with MP tightening and conditionality? ▪ Figure 5 highlights tension surrounding financial conditions.

	<ul style="list-style-type: none"> ○ TPI introduced to blunt impact of policy rate increases; ○ Risks to inflation have intensified; ○ Fiscal policy mentioned but no pushing back; ○ Only the PS mentions the exchange rate. 		
8 September 2022	<ul style="list-style-type: none"> ○ Data dependence mentioned as is war in Ukraine; ○ 75 bps rise in the policy rate frontloads MP tightening; ○ FG: More PR rises to come ○ Fiscal policy should be temporary and targeted; ○ Ukraine not mentioned in PS; ○ Only the PS mentions the exchange rate. 	<ul style="list-style-type: none"> • Financial conditions becoming tighter; • Interest rates are highly volatile. 	<ul style="list-style-type: none"> ▪ How to balance a steeper PR rise path with contributed downside economic risks? ▪ How to square continued data dependence with a promise of more MP tightening to come? ▪ Tightening amid belief that supply shocks are the main drivers of inflation; ▪ Tension between MP and fiscal policy surfaces.
27 October 2022	<ul style="list-style-type: none"> ○ Meeting-by-meeting approach to GC decisions ○ 75 bps rise in PR; ○ FG: more PR rises to come. Ukraine not mentioned; ○ Risks to inflation on the upside and downside to the economy; ○ Inflation will exceed the 2% target for an extended period of time; ○ Repeats call that fiscal measures should be temporary and targeted; ○ Only the PS statement mentions the exchange rate. 	<ul style="list-style-type: none"> • Changes to TLTROIII; • Credit standards have tightened; • Scarcity of good collateral 	<ul style="list-style-type: none"> ▪ Need to reduce inflation while preventing downside risks from materialising; ▪ No indication about how the two are to be calibrated; ▪ Tension between MP and fiscal policy a continuing threat.
15 December 2022	<ul style="list-style-type: none"> ○ Data dependence in PS not war in Ukraine; ○ 50 bps rise in PR; ○ FG: revisions to outlook signal future PR increases. Upside risks to inflation continue; 	<ul style="list-style-type: none"> • Global financial conditions ease; • Rebound in appetite for risk; • Interest rate expectations conflict with domestic economic developments; 	<ul style="list-style-type: none"> ▪ Protecting growth prospects risks negatively reacting to loss of confidence (financial markets and consumers); ▪ Easing of financial conditions risks adding inflationary pressures;

	<ul style="list-style-type: none"> ○ Suggests cost-push factors at play; ○ Fiscal policy warning not in PS; ○ Only the PS mentions the exchange rate. 	<ul style="list-style-type: none"> • Financial stability environment deteriorated since June 2022. 	<ul style="list-style-type: none"> ▪ Intentions of ECB at variance with financial market expectations.
<p>2 February 2023</p>	<ul style="list-style-type: none"> ○ Data dependence continues but no mention of war in Ukraine; ○ 50 bps rise in PR; ○ FG: stay the course in raising PR. First signs of a possible pause; ○ China rebound is introduced as a factor; ○ Wage growth seen in a positive light; ○ Repeats call that fiscal measures should be temporary and targeted; ○ Neither the PR nor the PS mention the exchange rate. 		<ul style="list-style-type: none"> ▪ Economic recovery expectations conflict with further promises of MP tightening but no clear destination; ▪ Wage commentary may not square with inflation expectations; ▪ Does the war not leave open unspecified risks of a U-turn?

Source: https://www.ecb.europa.eu/press/pressconf/press_conference/html/index.en.html.

Note: Author’s interpretation based on content of monetary policy decisions, namely the press release (PR), the policy statement (PS; excluding the Q&A), and monetary policy account (AC). TPI is the ECB’s transmission protection instrument.

There is little doubt that the written material provided at the conclusion of each GC meeting is rich in content. And there is also no doubt, as pointed out above, that tensions between monetary and financial stability policies, on the one hand, and monetary and fiscal policies, on the other, cannot always be avoided. Nevertheless, as the column in Table 4 labelled “Tension(s)” indicates, there is considerable lack of clarity about:

1. The extent to which upside risks to inflation conflict with downside economic risks. Considering the ongoing debate over the shape of the Phillips curve and occasionally contradictory evidence on this score, it would be helpful if markets and the public knew better policy makers’ stance on the question;
2. There is an absence of clarity about tail risks. Notably, as seen from Table 4, concerns stemming from the impact of the war in Ukraine seems to have dissipated greatly since June 2022. Does the GC know something markets do not? Or, is it a matter of “out of sight, out of mind” in an effort to prevent the un-anchoring of inflation expectations and keep the focus on the need to reduce inflation as quickly as possible?
3. There seems to be little or no recognition that the oft-mentioned high interest rate volatility phenomenon in the accounts of the GC meeting may partly be traced to the lingering doubts about how far and how fast the ECB will go in raising the policy rate. Furthermore, pre-pandemic there was consensus among policy makers and academics that monetary policy ought not to surprise markets, unless it is absolutely essential. This strategy appears to have been shelved for the time being without a clear explanation. Regarding the destination for the

policy rate, while GC and EB Board members are understandably reluctant to provide a precise policy rate level, they can easily provide some historical context.

For example, the period from 2000 to 2006 saw average HICP inflation of 2.13%, i.e. very close to the current medium-term objective and relative stability⁴², while the policy rate averaged 2.94% over the same period⁴³. For the period July 2022 to February 2023, the mean ECB policy rate is 1.57%⁴⁴. The output gap was close to zero during the 2000-2006 period⁴⁵. With real rates still very much negative⁴⁶, the ECB must be hoping that inflation will fall far more quickly than the policy rates required to generate an appropriate equilibrium level for the real interest rate. In any event, policy makers can use the period 2000-2006 to draw parallels, if any, or contrasts with the current environment. To simply state that the current inflation environment is different is not enough when the last decade and a half has brought both exceptionally low and high inflation rates. Financial markets and the public respond to convincing and credible narratives.⁴⁷

One additional contribution to the occasionally exaggerated emphasis of the ECB on how “unprecedented” the current environment is can be gleaned from Figure 6. Averaging policy rates from seven advanced economies, the top portion of the Figure suggests that only the steepness of recent policy rate increases is unusual, at least since 1999. Indeed, the 2000-2006 period highlighted above also contains large global swings in policy rates. The bottom portion of Figure 6 shows the sum of policy rate changes for the same seven economies. Once again, the suddenness and, to a lesser extent, the size of policy rate changes stands out. This is a reflection of the synchronised increases. However, when accumulated over time, the series of persistent, though smaller, policy rate increases from 2004 to 2006 far exceeds what central banks have done since the summer of 2022. The main difference is that monetary policy tightening was less synchronous back then.

4. ECB commentary about fiscal policy coming into conflict with monetary policy is vague and unhelpful. No hints are given about what temporary support means (until the end of the war? The return to 2% inflation?) nor who are the most vulnerable. When the Maastricht Treaty was created and the Stability and Growth Pact was negotiated, the concern was about the overall fiscal stance (i.e. deficits and debt) and not the composition of fiscal policy.
5. Finally, although Lane (2023) highlights the exchange rate is a “key metric of financial conditions” and a “material driver of economic activity and inflation”, none of the PR since June 2022 mentions this factor. One has to look at the PS for some commentary. While the role of the exchange rate is mentioned in 4 of 6 GC decisions, one can wonder why it is not mentioned more often in the PR. If the exchange rate is as important as claimed, one might have expected this consideration to play a more prominent role in the PR⁴⁸.

⁴² With a standard deviation of 0.24%.

⁴³ In addition, an estimate of the average natural rate of interest (Holston et al., 2017) over this period is 2.11% (standard deviation of 0.28%) very close to the hypothesised value in standard specifications of the Taylor rule.

⁴⁴ With a standard deviation of 0.97%.

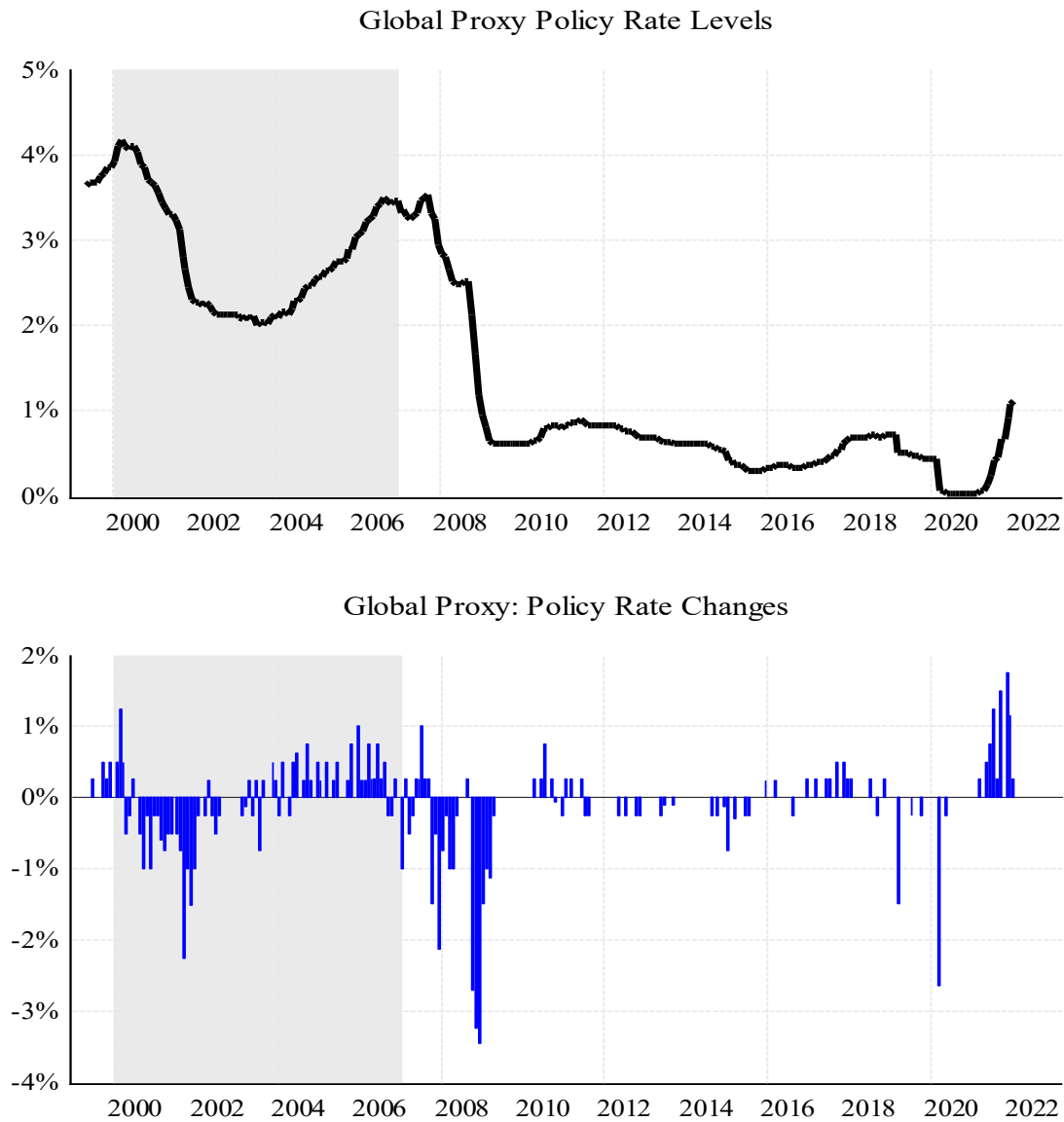
⁴⁵ With a mean of 0.15% and a standard deviation of 0.48% (Holston et al., 2017).

⁴⁶ The average current real policy rate for the July to December 2022 period is -7.86% (standard deviation is 0.87%). This is down from a peak of -8.86% reached in October 2022.

⁴⁷ The classic reference is Shiller (2019).

⁴⁸ Perhaps the effective downplaying of the exchange rate owes something to the fact that a plot of the EUR/USD nominal exchange rate since 1999 does not suggest that the recent depreciation stands out from earlier episodes of depreciation.

Figure 6: Global policy rates and policy rate changes



Source: BIS, <https://www.bis.org/statistics/cbpol.htm?m=2679> and author's calculations.

Notes: Monthly policy rates from the USA, the euro area, Canada, United Kingdom, Japan, Switzerland, and Korea. Policy rates are averaged to produce the top figure. The bottom graph aggregates monthly changes in policy rates. A positive value means rising policy rates; negative values signal a decrease. The height of the bars indicates how synchronous policy rate changes are.

4. CONCLUSION

The economic and geopolitical events over the past year have been nothing short of remarkable. The remit for this edition of the Monetary Dialogue asks papers to identify the impact of the war in Ukraine and its spillovers on inflation and core inflation in the euro area, and to comment on the overall effectiveness and outlook for monetary policy over the medium-term.

After reviewing the policy challenges faced by the ECB, having analysed some of the components driving headline and core inflation, a critical analysis of the narratives implicit in GC decisions was presented.

Two broad policy conclusions can be drawn from the analysis of the preceding sections. They are:

- (a) The ECB is no longer “behind the curve”. Indeed, it can be argued that the switch from “wait and see” to “leaning hard against the wind” has been nothing short of dramatic. That said, various indicators examined also suggests that markets have doubts about how far the ECB will go and what constitutes policy normalisation. The gap between how monetary policy was conducted in June 2022 and the message conveyed by the GC in February 2023 is large. Unfortunately, and this applies to other central banks in advanced economies, the distance to achieving a stable and predictable inflation rate of 2% is a long one.
- (b) Given (a), the ECB must be relying on its capacity to warn markets of its determination to tighten policy even further if it perceives medium-term inflation expectations becoming unmoored. This means that any policy rate change must contain the threat of an even larger change in the future and explains the most hawkish tone of the last press releases (and subsequent speeches). Unfortunately, this attitude can and does collide with the ECB’s over-emphasising data dependence and uncertainty as checks against a potential U-turn.

Beyond the broad conclusions just described, there are three other lessons for policy to be drawn from the analysis in this paper. More specifically, there continues to be unresolved tensions between monetary policy and financial stability policy. The high inflation rates currently being experienced and the steps taken to date to reduce inflationary pressures come on the heels of many years of lower for longer policy rates. The series of crises since 2008 has led major central banks, including the ECB, to intervene in financial markets hoping to provide the healing time necessary for economies to resume healthy growth rates. As these “controls” are being removed, it can hardly be surprising that a more fragile financial system can come into conflict with the need to severely tighten monetary policy.

The war in Ukraine raises yet another tension, this time arguably with greater import for monetary policy, namely that fiscal policy, already loosened considerably due to the COVID-19 pandemic, is also proving challenging to be normalised.

Finally, the ECB’s communication strategy has exaggerated how unique the current economic environment is. It appears unable to draw sufficiently on historical lessons to create a more credible narrative for markets and the public to fully comprehend both the dangers that lie ahead and what policy destination it is striving for. Supply shocks are not new, sadly neither are major geopolitical conflicts, nor is a fiscal policy under considerable stress from the accumulated effects of recent shocks. The ECB risks continuing to convey the wrong message to the public. Instead of making it crystal clear that it can only do so much, that reliance on policy cooperation with the fiscal authorities is essential⁴⁹, and that data dependence is necessary but not sufficient, it risks reacting to changes in expectations instead of shaping them. To be sure there are risks to shifting to a more forward-looking view when tail

⁴⁹ Given the ECB’s constitutional position (i.e. its autonomy), it appears that the many (sovereign) fiscal authorities in the euro area and the central bank talk over rather than to each other. This raises potential governance questions that are outside the scope of the paper.

risks remain significant. However, this seems the only way to convince the public that current monetary policy strategy would lead to a dim future if the ECB does not remain ahead of the curve.

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The ECB has orchestrated a U-turn in monetary policy since July 2022. However, inflation remains a considerable distance away from its own medium-term objective. The ECB relies too heavily on data dependence and uncertainty in communicating monetary policy to markets and the public. It also fails to acknowledge the inherent tensions that exist between monetary and financial stability policies. The current hawkish stance is appropriate but leaves the ECB open to more credibility losses should tail risks emerge.

This paper was provided by the Economic Governance and EMU Scrutiny Unit at the request of the Committee on Economic and Monetary Affairs (ECON) ahead of the Monetary Dialogue with the ECB President on 20 March 2023.

PE 741.484

IP/A/ECONMD/FWC/2020-002/C1

Print ISBN 978-92-848-0280-7 | doi:10.2861/872868 | QA-07-23-112-EN-C

PDF ISBN 978-92-848-0281-4 | doi:10.2861/174449 | QA-07-23-112-EN-N