

IN-DEPTH ANALYSIS

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Should the ECB Be Worried About Inflation?



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Monetary Dialogue Papers
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Abstract

Inflation jumped to 3% in August raising questions about whether the ECB needs to alter its monetary policy. This paper reviews the recent evidence on euro area inflation and concludes the current increase is likely to be temporary, being driven by a rise in energy prices that is likely to end soon and a range of temporary factors relating to the pandemic.

This paper was provided by the Policy Department for Economic, Scientific and Quality of Life Policies at the request of the committee on Economic and Monetary Affairs (ECON) ahead of the Monetary Dialogue with the ECB President on 27 September 2021.

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LIST OF ABBREVIATIONS

CPI	Consumer price index
ECB	European Central Bank
HICP	Harmonised index of consumer prices
IMF	International Monetary Fund
PEPP	Pandemic emergency purchase programme

EXECUTIVE SUMMARY

- **Euro area HICP inflation jumped to 3% in August.** This has raised questions about whether the ECB will need to alter its monetary policy in response to rising inflation.
- **This paper reviews the recent evidence on euro area inflation.** It concludes the current increase in inflation is likely to be temporary.
- **The biggest factor driving the higher rate in inflation is an increase in energy prices.** Excluding energy prices, the euro area HICP rose 1.7% over the year ending in August.
- **This rise in energy prices is projected to end soon.** Energy prices fell during 2020 largely due to reduced demand for transportation because of lockdowns. As the global economy has recovered, energy prices have risen back above pre-pandemic levels. However, forecasts from the IMF and futures market contracts suggest energy prices are unlikely to rise much further.
- **HICP inflation excluding energy, food, alcohol and tobacco (core inflation) rose by 1.6% in August.** This was a sharp rise from previous months this year.
- **The sharp rise in year-over-year core HICP inflation during August was due to several temporary factors related to the pandemic emergency.** A temporary cut in German VAT in 2020 combined with the absence of traditional seasonal sales to affect some of the readings for core HICP inflation over the past year.
- **However, underlying core inflation remains below 2%.** Since the start of the pandemic, both the total HICP and the core HICP have grown at a pace slower than if they had grown in line with the ECB's 2% inflation target.
- **The rise in inflation will be of more concern to the ECB if it raises inflation expectations and gets passed into wage bargaining.** However, there is no evidence of this happening as of yet.
- **The forces that have produced low inflation over the past decade are unlikely to go away.** Research generally points to longer-term changes in technology, demographics and central bank policies as key factors. These have not changed with the onset of the pandemic.
- **To the extent that the current uptick in inflation triggers a limited increase in inflation expectations, it may have some positive side effects.** The ECB has substantially undershot its inflation target over the past decade. An uptick in inflation expectations may help ECB to keep inflation expectations anchored at its target rate. This may help it reach its inflation target and prompt the phasing out of its wide range of unconventional monetary policies.

1. INTRODUCTION

Over the last decade, the European Central Bank (ECB) has consistently undershot its target rate of inflation. Despite years of economic recovery following the global financial crisis and the subsequent euro crisis, inflation continued to regularly come in below 2%. These developments led the ECB to introduce unprecedented levels of monetary stimulus in an attempt to raise inflation towards its target level. With the onset of the global pandemic, the ECB was concerned that this large negative economic shock would move inflation even further below target so they supplemented their existing monetary policy measures with the enormous pandemic emergency purchase programme (PEPP). The ECB's message to the public throughout the pandemic period has been that they should expect a highly supportive monetary policy to be in place for many years.

Recent events, however, have raised some questions about whether the ECB may need to change course somewhat faster than had been expected. Successful vaccination programmes in advanced economies have allowed a re-opening of parts of the economy that were closed for much of last year and the pace of global recovery has been robust. In addition, several unusual circumstances created by the pandemic have produced a faster rebound in inflation than most had expected last year. Energy prices have recovered and supply disruptions and changes in demand patterns have led to increasing prices for various kinds of goods.

With household spending on many items suppressed over the past year by lockdowns and household balance sheets generally in better shape than prior to the pandemic, there is also the potential for high levels of demand to drive up prices. This prospect has been increased by the aggressive fiscal stimulus introduced in the United States (US). Indeed, the US consumer price index (CPI) was up 5.4% over the previous year in July, with "core" CPI inflation (excluding food and energy prices) up 4.5%.

While there have been concerns that US inflationary pressures could spill over to the rest of the world, inflationary pressures have generally been less evident in the euro area this year, perhaps due to much smaller scale of fiscal stimulus. However, Eurostat's August "flash" release of the harmonised index of consumer prices (HICP) showed that year-over-year inflation jumped to 3%, up from 2.2% in July. Much of the rise in inflation in recent months reflected higher energy prices but core HICP inflation also spiked upwards in August to 1.6% having generally been below 1% over the previous year.

While this level of core inflation is not a source of concern for the ECB, a continuing rise in inflation of the kind seen in recent months would be problematic. The ECB's recently concluded strategy review decided not to copy the Federal Reserve's commitment to so-called "average inflation targeting". Under that approach, the ECB could have decided to allow inflation to be above target, perhaps for several years, in light of the large cumulative undershooting of its inflation target in recent years. However, the review decided not to adopt average inflation targeting so any sustained move above 2% inflation would require a quick response from the ECB. A quick turnaround in the direction of monetary policy could prove difficult for the ECB to execute without provoking a potential recession or possible financial stability problems.

How likely is this scenario? In this paper, I review the evidence on recent inflationary developments and conclude that, at least for now, the ECB does not need to be concerned about inflation moving above its target in a sustained way that would require a substantial adjustment of monetary policy. The balance of the evidence points to current inflationary pressures as likely to ease in the coming year, though the mix of unusual elements in the post-pandemic economy makes forecasting the economy even more challenging than usual.

The paper is structured as follows. Section 2 briefly reviews some of the recent developments that have triggered an increase in global inflationary pressures. Section 3 presents the evidence on movements in total and core HICP inflation in the euro area since the beginning of the pandemic. It is argued that energy prices are likely to stabilise in the coming months and despite some volatile movements in core inflation over the past year, there is little yet to suggest it is heading for a sustained period of readings over 2%. Section 4 discusses some of the factors likely to influence the medium-term path of inflation. Overall, it is argued that global bottlenecks will ease over time and the underlying forces that have kept inflation low in recent years are likely to remain in place.

2. SOME GLOBAL INFLATIONARY PRESSURES

Before taking a closer look at the recent data on euro area inflation, it is worth flagging a number of factors that have combined to increase inflationary pressures across the advanced economies this year.

The onset of the pandemic saw a collapse in energy prices, most notably with falling oil prices due a collapse in demand as lockdowns greatly reduced all kinds of travel. As the global economy recovered, these initial price declines have been reversed and are now causing higher year-on-year inflation rates. We will discuss this in a euro area context in the next section.

The pandemic has also produced some unusual combinations of supply and demand for various products that have caused upward pressure on prices. On the supply side, the crisis led to factory shutdowns across the world in 2020 and ongoing COVID-19 breakouts continue to cause difficulties for manufacturers in various locations. The pandemic also produced unexpected changes in the global spending patterns. With many service providers closed and limited in-person shopping opportunities during lockdowns, households in advanced economies switched to purchasing goods online, most notably durable goods. This led to an increase in demand for products produced in Asia that took manufacturers and transportation firms by surprise.

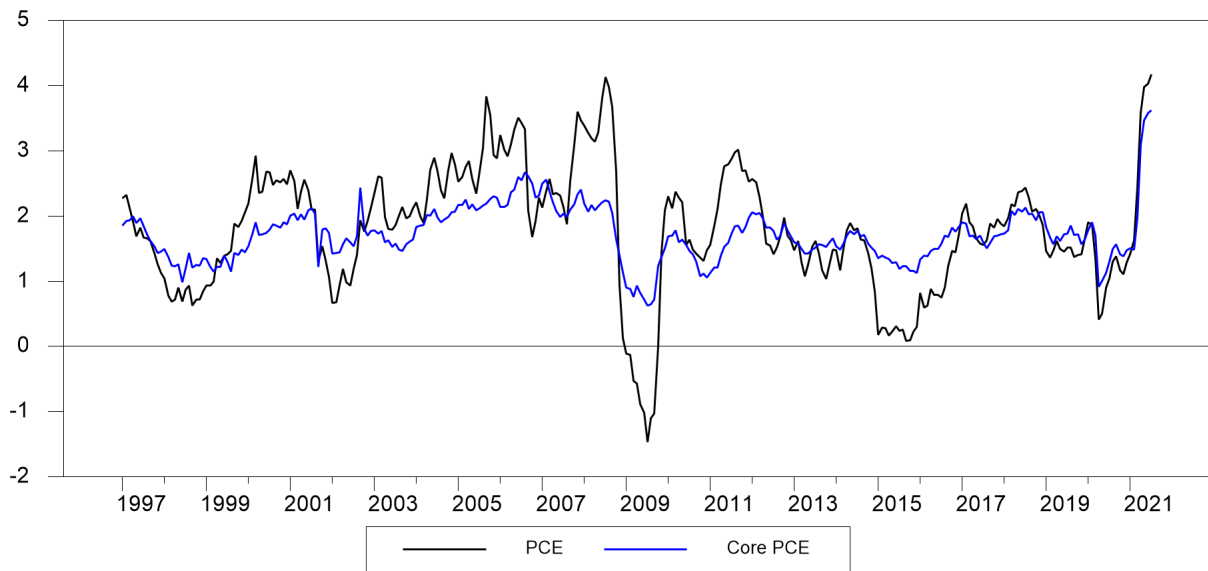
Prior the pandemic, the onset of a trade war between the US and China convinced many that global long-distance trade was likely to decline and this led to a reduction in orders for new container ships. This has left the supply of container shipping below what was needed to cope with the surge in the demand for manufactured goods. This change in global demand patterns has put severe pressure on shipping companies moving goods from Asia to the United States but shipment delays and parts shortages have had a global impact.

One important example is semiconductor chips. Supply disruptions have combined with a surge in online ordering of electronic products and strong demand for chip-heavy electric vehicles to lead to a shortage of supply components for many products. This has caused delivery delays and higher prices for various products. The combination of motor vehicle production shutdowns and increased demand for cars due to the ending of lockdowns triggered a surge in used car prices in the United States that had a large effect on consumer price inflation.

One factor influencing these trends has been the perhaps counter-intuitive outcome that, while some firms and households have been badly affected by the loss of income due to shutdowns, on average household balance sheets have strengthened over the past 18 months due to lower spending and active fiscal policies such as wage subsidy schemes that have offset much of the direct impact of the pandemic on average household disposable income. House prices have continued to rise and global stock markets are at all-time highs, further fuelling the strength of household balance sheets. This is particularly true in the United States, where there have been three rounds of stimulus cheques mailed directly to households, most of which were saved, thus building up household savings that could then be spent later on large items.

The combination of supply disruptions, surges in demand for specific products and strong household balance sheets has produced a spurt in US consumer price inflation. The US CPI rose to 5.4% in the year ending in July with the core CPI up 4.5% over the same period. The Federal Reserve's preferred inflation measures are the personal consumption expenditure deflators—these measures use updated expenditure weights and include prices for consumption categories that are not out-of-pocket expenditures for households—which have been running about one percentage point lower than the CPI measures but the sharp spike in recent months in these measures is also evident from Figure 1 below.

Figure 1: US personal consumption expenditure (PCE) inflation and PCE inflation minus food and energy



Source: Author's calculations using data from US Department of Commerce, Bureau of Economic Analysis.

3. RECENT EVIDENCE ON EURO AREA INFLATION

This section discusses the behaviour of euro area inflation since the onset of the pandemic in early 2020.

3.1. Energy prices and headline HICP

The black line in Figure 2 on the next page shows HICP inflation—as measured by the year-over year change in the HICP index—while the blue line shows the "core" inflation measure most commonly cited by the ECB, which is the HICP excluding energy, food, alcohol and tobacco. HICP inflation had been running at just over 1% during the months prior to the start of the pandemic emergency. However, the pandemic saw a quick turnaround in pricing behaviour and by late 2020 annual inflation measures were negative. These measures turned positive again in January 2021 and gradually rose in the following months before the August flash numbers showed a large spike with inflation rising to 3.0% compared with 2.2% in July.

Figure 2 makes clear that non-core prices were the principal driver of the volatility in HICP inflation over the past year. The figure also shows that this has not been an unusual event during the euro area's history. Core inflation has fluctuated in a much narrower range than total HICP inflation since the early 2000s.

So how should the ECB respond? The Federal Reserve has been explicit in recent years that it views core PCE prices as its key short-term measure of inflationary trends. The ECB tends to be less explicit about its attitude to core consumer price inflation, preferring generally to focus on a range of "underlying" inflation measures. However, the evidence from the past 20 years suggests there are good reasons to focus on core inflation when assessing the likely future direction of inflation.

Using the data in Figure 2, I used regression analysis to test whether the current value of HICP inflation or the current value of core HICP inflation was better at forecasting the value of inflation one year from now. The results (Table 1, Annex) clearly suggest that during the years the euro has been in existence, core inflation has been the better predictor. Indeed, the results show that, once you know core inflation, the current value for total HICP inflation does not provide any additional statistical explanatory power for forecasting the value of inflation a year from now.

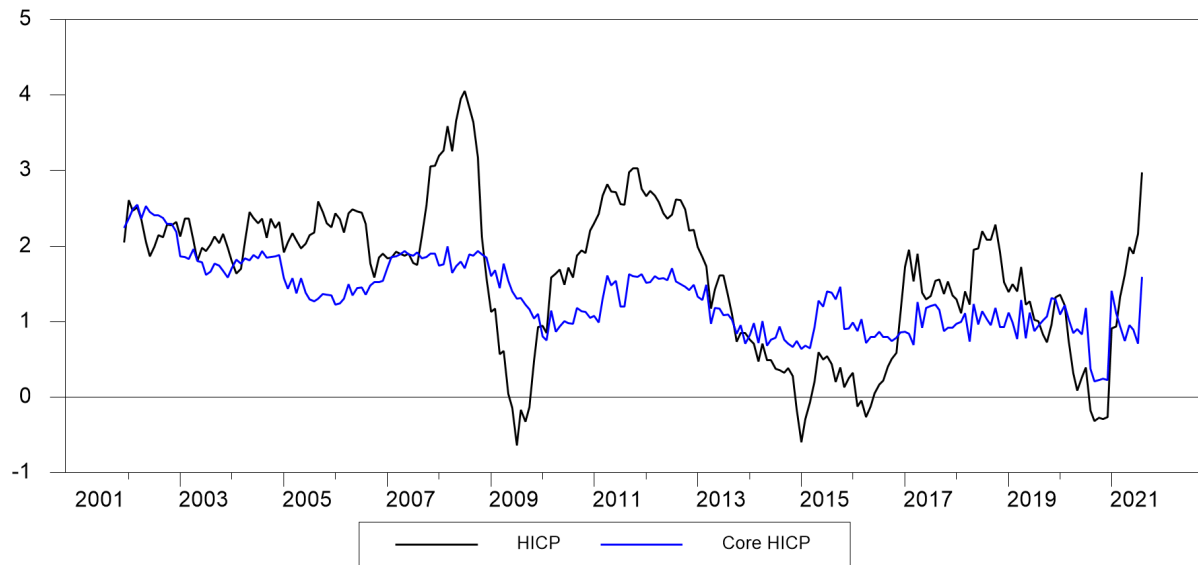
Of course, predicting the future based on past patterns does not always work well and it is possible that we are set for an extended period of higher inflation readings due to a sustained level of inflation in non-core prices. The current evidence suggests this is not going to be the case. The discrepancy between the core and total HICP inflation readings for August is almost entirely driven by the pickup in energy prices over the past year: HICP inflation excluding energy was 1.7% in August. As can be seen in Figure 3, energy prices fell sharply at the beginning of the pandemic but have now more than recovered these losses. At the moment, however, forecasters and market participants are forecasting that energy prices are likely to flatten or slightly fall over the coming year.

The International Monetary Fund's World Economic Outlook forecast published in July (IMF, 2021) assumes a slight drop in oil prices next year. Current futures contracts show financial market investors are currently in agreement with this projection¹. There may continue to be some passthrough from higher wholesale energy prices to higher retail energy prices in the coming months but, if wholesale prices level out, we will likely see the same pattern in the HICP for energy. The HICP for energy

¹ Oil price futures contract prices can be found at: <https://www.wsj.com/market-data/quotes/futures/CRUDE%20OIL%20-%20ELECTRONIC/contracts>.

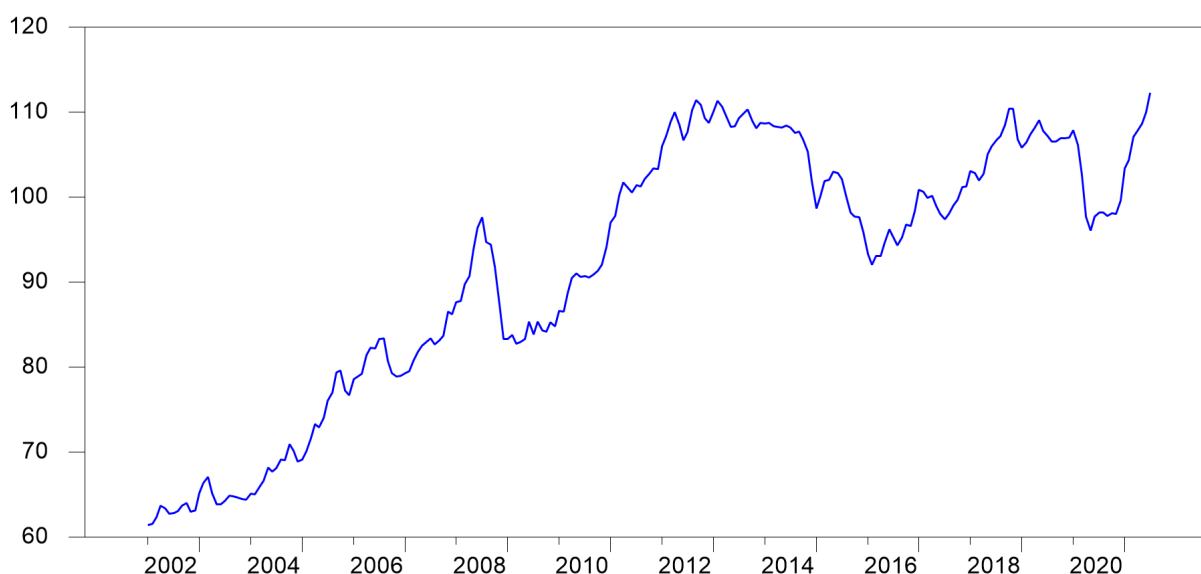
bottomed out in November 2020 so this component is likely to stop adding to headline inflation by early 2022.

Figure 2: Consumer inflation as measured by year-over-year percentage change in HICP and HICP excluding energy, food, alcohol and tobacco



Source: Author's calculations using data from Eurostat.

Figure 3: HICP energy price index



Source: Eurostat.

3.2. Core HICP inflation

While an apparently temporary increase in energy prices has been the principal driver of the current higher level of HICP inflation, the jump in core inflation to 1.7% in August would be a concern if it signalled the beginning of a series of increases in core inflation. However, a close look at the evidence suggests this is unlikely to be the case.

The year-over-year measure of core HICP inflation has been more volatile than usual over the past year with some large jumps in both the downwards and upwards directions. One complicating factor when interpreting these movements is that Eurostat does not publish a seasonally adjusted version of the HICP, despite there being well-known seasonal patterns in the series due to regularly timed sales and other factors. Thankfully, the ECB publish seasonally adjusted versions of the key series. Figure 4 shows the month-over-month percentage change in the ECB's seasonally adjusted series for total and core HICP. This shows a large drop in the total and core seasonally adjusted HICP in August 2020 and then large increases in January and July this year.

This volatility has been influenced by two temporary factors related to the pandemic. The first was a temporary change in value-added tax (VAT) rates in Germany. The standard rate of VAT in Germany was cut from 19% to 16% in summer 2020, contributing to a sharp decline in the HICP in August 2020. This cut was reversed in January 2021 and this was a major factor in the large increase in both the year-over-year HICP for that month as well as the spike in month-over-month seasonally adjusted HICP measures. August 2021 was the first month in which the temporary VAT cut affected the index from twelve months earlier, so this "base effect" influenced the big jump in the year-over-year measures of inflation for August even though there was little movement in the seasonally adjusted series in that month.

The second temporary factor was the cancellation of traditional seasonal sales. With retail outlets closed, traditional January and summer sales did not occur to the same extent this year as in the past, contributing to temporary spikes in both year-over-year HICP inflation and the monthly seasonally adjusted series in January and July.

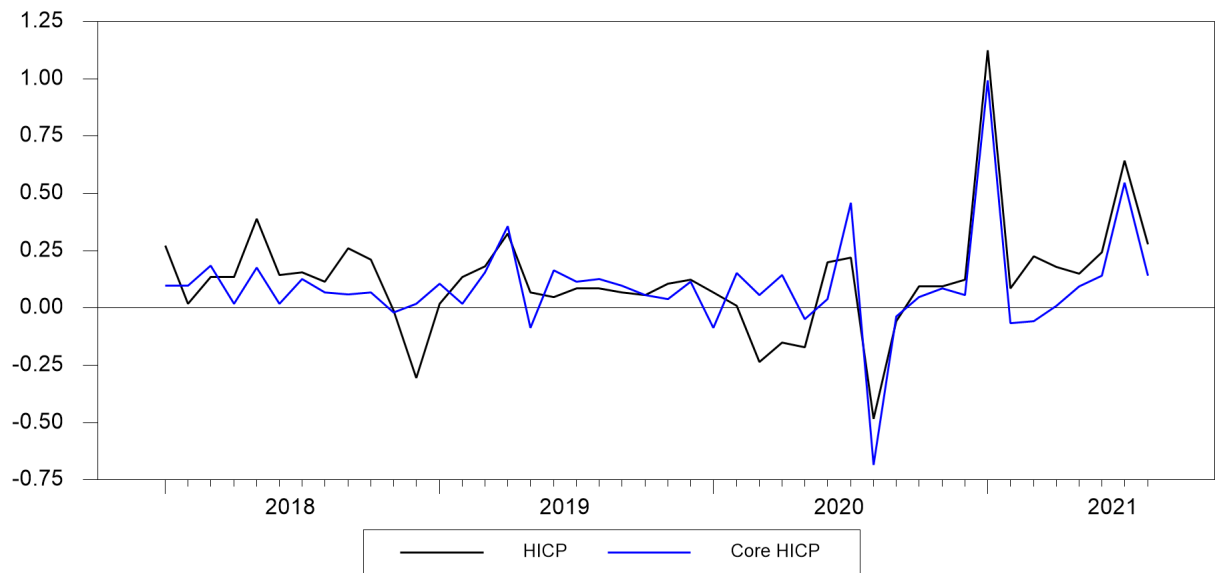
There have also been some complicating technical factors that have perhaps influenced the unusual

behaviour of core HICP inflation over the past year. One has been the increased prevalence of price imputations used in place of actual price quotes because of business closures. ECB (2021) reported that the share of price imputations in the core HICP index was 18% in January 2021 but had fallen to 5% in June. It is possible that some of the upward price adjustments seen over the summer was due to newly updated prices for services for which real quotes had not been available for some time. Another technical factor has been the change in HICP expenditure weights for 2021. Eurostat updates the weights for items in the theoretical "basket" each year based on consumption patterns during the previous year. With the pandemic inducing large changes in expenditure patterns in 2020, there has been a bigger than usual change in the expenditure weights this year and this is likely to occur again in 2022, perhaps inducing some spurious volatility².

To summarise, while there has been some volatility in core HICP inflation this year, there is little evidence to suggest that it is heading above a 2% trend. While there have been months in which exceptional events have triggered temporary jumps in year-over-year inflation, the data from other months show no sign of an underlying pickup in inflation. One way to "read through" the volatility due to the pandemic is to go back to February 2020 and calculate what the price level would be today if prices had grown steadily at the ECB's preferred rate of 2%. Figure 5 illustrates this counterfactual trend for the seasonally adjusted HICP and Figure 6 shows it for the seasonally adjusted core index. In both cases, prices in August 2021 remain below this hypothetical trend.

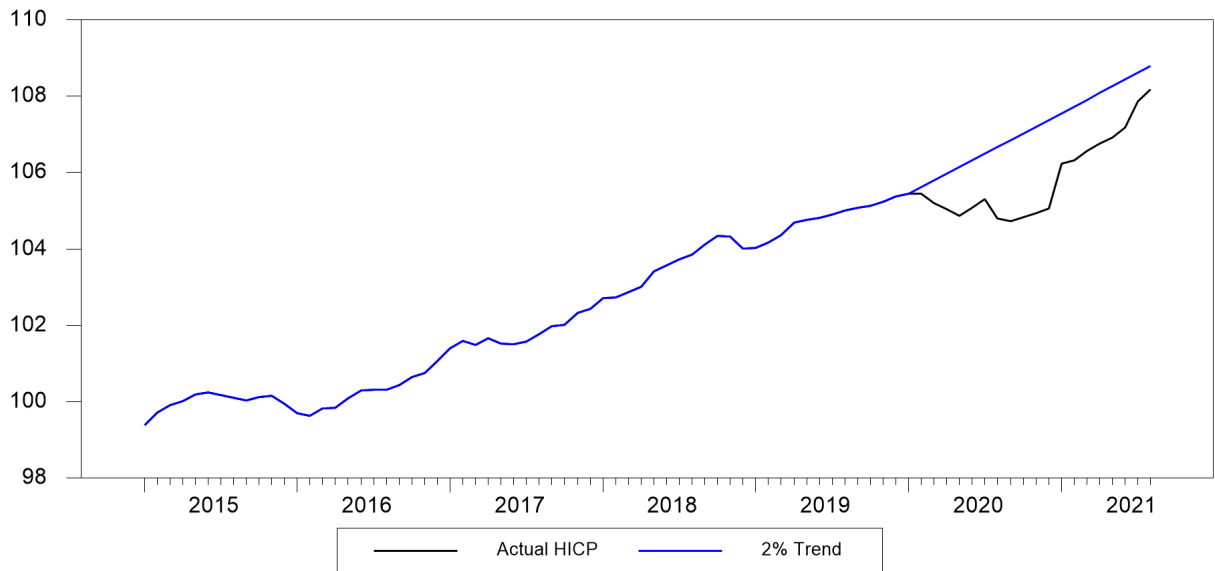
² See Claeys and Guetta-Jeanrenaud (2021) for a more detailed discussion of this issue.

Figure 4: One-month percentage change in seasonally adjusted HICP and core HICP



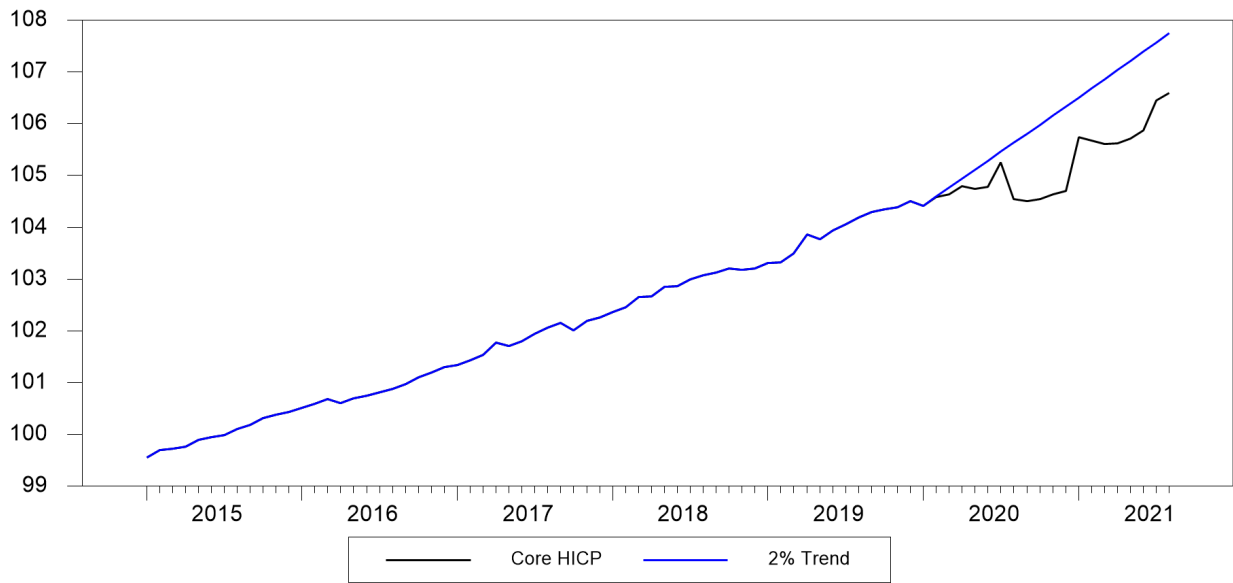
Source: Author's calculations based on data from the ECB's Statistical Data Warehouse.

Figure 5: Seasonally adjusted HICP and a counterfactual 2% trend starting in February 2020



Source: Author's calculations based on data from the ECB's Statistical Data Warehouse.

Figure 6: Seasonally adjusted core HICP and a counterfactual 2% trend starting in February 2020



Source: Author's calculations based on data from the ECB's Statistical Data Warehouse.

4. FACTORS INFLUENCING THE MEDIUM-TERM OUTLOOK

The previous arguments suggest that a closer examination of the data points to the current period of above-target HICP inflation as likely to be temporary. In particular, it seems unlikely that core HICP inflation will keep rising in the coming months. Beyond the near-term, however, a number of factors are worth keeping in mind.

The first is that the speed which the various temporary factors affecting global inflation will go away is uncertain and likely to vary according to each factor. For example, I argued above that the impact of VAT changes and the bounce-back in energy prices on inflation will likely wane in the coming months. However, some of the cost increases associated with bottlenecks may take longer. For example, it takes about three years from ordering a container ship for it to be delivered, so the shortage in this area may continue having an impact for some time to come.

Second, a key factor in determining whether any rise in inflation is temporary is whether the increase is perceived as such by the public or whether the increase ends up having "second round" effects by increasing expectations of future values of inflation and feeding into higher wage demands. At present, these second-round effects seem to do not seem to be occurring. The expectation among economists and financial markets is that HICP inflation will return to lower levels in 2022. The most recent release of the ECB's Survey of Professional Forecasters, published on 23 July, showed expected values of 1.5% for HICP inflation in 2022 and 2023 and similar values for core inflation. In their most recent Economic Bulletin, ECB (2021) report recent data from inflation-linked swaps contracts suggesting market expectations are also consistent with inflation just below 2% in the coming years. The ECB also report no evidence of higher inflation rates yet translating into higher wage inflation.

Third, as Fed Chair Jerome Powell (2021) stressed in his recent speech at the Jackson Hole conference, there has been a lot of research on the various forces that have produced the low inflationary environment of the past few decades. He argues that most of these forces are likely to still be with us over the next few years. Powell noted:

"The pattern of low inflation likely reflects sustained disinflationary forces, including technology, globalization and perhaps demographic factors, as well as a stronger and more successful commitment by central banks to maintain price stability ... While the underlying global disinflationary factors are likely to evolve over time, there is little reason to think that they have suddenly reversed or abated. It seems more likely that they will continue to weigh on inflation as the pandemic passes into history".

To conclude, there is a possibility that the current rise in inflation represents a danger to the euro area economy. If it persists and the ECB decides to quickly reverse its current loose monetary policy, then there could be substantial negative consequences. However, there is no sign at present that the current uptick in inflation will persist. Indeed, it is possible that the current increase in inflation could turn out to be welcomed by central banks that have failed to reach their inflation targets over the past decade.

In the 1990s, Federal Reserve economists, Athanasios Orphanides and David Wilcox argued that central banks seeking to lower inflation should use the opportunity posed by temporary supply shocks that reduced inflation to lock in lower levels of inflation without having to slow the economy and raise unemployment. In more recent years, central banks such as the ECB have been losing credibility due to their failure to raise inflation to their target levels despite the application of ever-increasing amounts of monetary stimulus. The current burst of inflation, if it does have some influence on inflation expectations, could help to keep these expectations anchored at the ECB's target rate. This "opportunistic higher inflation" could help the ECB achieve its inflation target and smooth the path to

an orderly exit from the current unconventional monetary policies.

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ANNEX

Table 1: Coefficients from regressions of year-over-year HICP inflation on a constant term and lagged values of HICP inflation and core HICP inflation.

	One Month Lagged Values	Six Month Lagged Values	Twelve Month Lagged Values
Constant Term	0.15 (0.05)	0.53 (0.15)	0.56 (0.20)
HICP Inflation	1.0 (0.02)	0.63 (0.07)	0.06 (0.08)
Core HICP Inflation	-0.11 (0.05)	0.05 (0.14)	0.67 (0.18)

Source: Author's calculations based on data from Eurostat.

Notes: Standard errors in brackets. Sample is December 2002 to August 2021.

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