Re-appraising Eurozone inflation

Special

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Summary

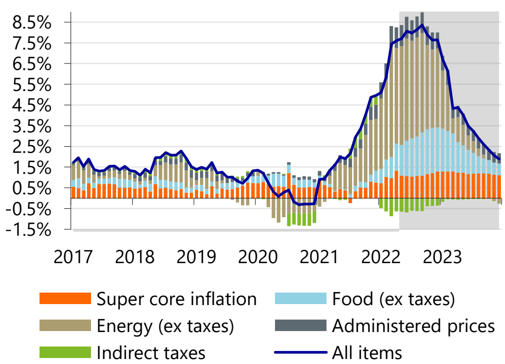
- We have revised our HICP forecasts up to 7.5% in 2022 and 3.6% in 2023.
- Yet another upward revision brings into question the timing of "peak inflation", how fast inflation will decline afterwards, and at what inflation rate it will settle.
- Higher than expected inflation has affected both market expectations and risk perception. After stripping out the term premium, we still see markets pricing at or above-target inflation.
- These expectations are largely driven by commodities and recent surprises. The supply-driven nature of the current inflation weakens the impact of demand destruction on prices.
- Furthermore, an unusually large share of recent inflation surprises cannot be explained by commodities or supply chains, suggesting that some of this inflation could be structural.
- Our updated inflation forecast and the risks surrounding it warrant an ECB hike in July. We have therefore updated our call to three hikes this year, in July, September and December.

Oil embargo: another inflation impulse

We have revised our inflation forecasts to include the effects of a ban on Russian oil and further food price pressures. We now forecast 7.5% inflation for 2022 and 3.6% next year. While we expect inflation to peak in the second half of the year, the descend will be slower than historically. Inflation is driven by supply factors, which should limit the price effects of demand destruction. This also means that upside risks remain, as we detail below.

European leaders have drawn up plans to phase out Russian fossil fuels. Coal is already part of the fifth EU sanction package, and last week EC President Von der Leyen announced the Commission's proposal for an oil embargo. In order to get Slovakia, the Czech Republic and Hungary on board, the EU has offered significant flexibility. Especially the latter country has proved to be a holdout, but the Commission looks determined to achieve success on this front and we believe that this is more than anything a matter of time and money. Our scenario analysis of an oil boycott sees prices potentially spiking to $170 per barrel.

Figure 1: Close to the peak, but a slow trajectory down thereafter



Source: Macrobond, Rabobank

We haven't seen strong pressures into that direction yet, but one shouldn't underestimate the impact of a ban by only looking at a barrel of crude; gasoil (diesel) and other fuels have already seen much more upward price pressure. This is yet another impulse to

Eurozone inflation as a high contribution from energy prices will remain a key feature of headline inflation over the next 6 to 12 months.

Besides energy, food price inflation is also likely to remain more elevated due to high fertilizer prices, disruptions in the production and distribution of food commodities, etc. Companies throughout the value chains have made significant price adjustments in recent months, but this process isn't over yet. We see food and beverages inflation spiking above 10% y/y by end-2022 (up from 6.3% in April).

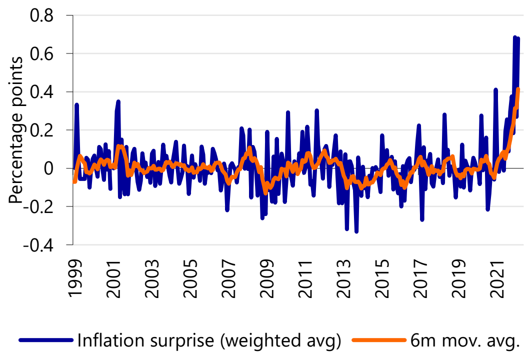
Our core inflation projection is based on the assumption that wage growth accelerates towards 2.5% (on average) this year (up from 1.5% in 2021) and 3% next year, before easing back down as rising unemployment starts to weigh on wages. So, overall, our base case remains a situation where inflation gradually recedes, but the pace at which inflation will recede is likely to be considerably slower than we normally tend to see after an inflation spike (Figure 1). And the risk of the peak shifting out further is also clear from these projections. With inflation being driven largely by persistent supply factors, as commodities are weaponized, we believe the risk of a significant slowdown in inflation materializing due to demand destruction is less likely at this stage. That, in essence, is the definition of stagflation, at least for the next one to two years.

Further inflation surprises should not surprise us?

Our latest upward revision is a series in many. And we are not alone in this. Actual inflation data has outstripped economists' expectations to the extent that ECB staff dedicated an entire section of their latest economic bulletin to an analysis of why their forecasts have been so wrong.

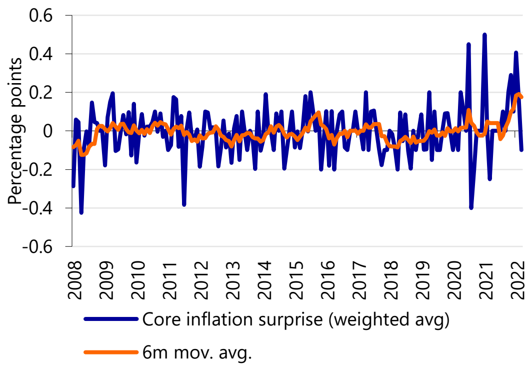
Figures 2 and 3 illustrate just how significant surprise inflation has been. We define this inflation surprise as the deviation of the actual inflation release from the Bloomberg consensus expectations ahead of each monthly release, weighing the Euro area data as well as that of its five biggest member states.[1] The sharp and persistent streak of positive inflation surprises since mid-2021 really stands out from its historical pattern since 1999. The total cumulative increase in headline inflation surprises is no less than 3 percentage points since June 2021. The only episode that comes anywhere close to such an increase is that of mid-2009 to mid-2012, when cumulative surprises ticked up (roughly) 1ppt, albeit over a much wider time frame.

Figure 2: Headline inflation surprises by survey month – catch-all indicator



Source: RaboResearch, Bloomberg

Figure 3: Core inflation surprises by survey month (shorter and smaller sample)



Source: RaboResearch, Bloomberg

[1] This only includes 'preliminary' inflation releases since revisions tend to be small in size, which would artificially deflate the perceived surprises. We applied a 50% weight to the Eurozone-wide data and 50% to the national data (which in turn are GDP-weighed). Furthermore, we applied equal weights to harmonized versus national data and m/m versus y/y surprises. Finally, deviations from the survey median and mean are equally weighted.

For core inflation this phenomenon is less prominent and less persistent, although we are still talking about a cumulative surprise of about 1 percentage point since mid-2021.[2] So, at first sight, the explanation for the inflation surprises over the previous twelve months should at least contain a story that is related to commodity prices and, perhaps, supply chain disruptions (causing significant cost increases for shipping).

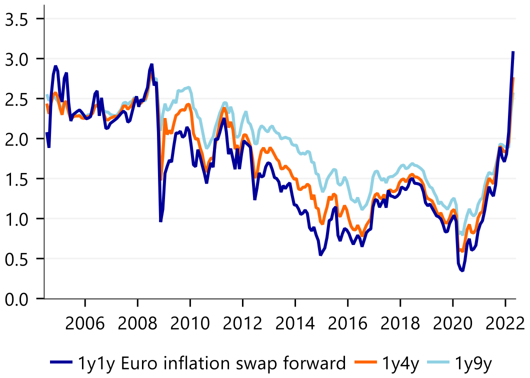
What's behind these surprises?

To test this hypothesis we estimate a model, regressing the monthly inflation surprises on 1) the monthly change in commodity prices, 2) the Fed's index of global supply chain issues, 3) the effective exchange rate, and 4) the annual acceleration in both headline and core inflation. This analysis suggests that –indeed– economists have underestimated the impact of commodity price hikes and supply chain pressures on inflation. However, even after accounting for these unforeseen and admittedly hard-to-predict events, about 1.5 percentage points of the cumulative inflation surprise are still unexplained. The fact that roughly half of the total inflation misses cannot easily be explained away certainly raises the question whether this is a sign of structurally higher inflation.

The impact on inflation expectations

Markets have equally been caught on the wrong foot by inflation over the past year or so. And high inflation as well as the unusually large surprises has pushed up the price of inflation hedges. This is evident in both the break-even inflation rates derived from sovereign bonds as well as the sharp rise in inflation swaps.[3]

Figure 4: A sharp rise in inflation forwards



Source: Bloomberg, Rabobank

Inflation term premium

It is, however, not immediately clear whether these higher inflation swap rates reflect a rise in inflation *expectations* across all tenors, if increased *uncertainty* adds to the costs of hedging future inflation risks, or both. Using an ACM-style term premium model, we have sought to separate inflation swap forwards into these two elements.[4] We find that, unsurprisingly, recent inflation has had a positive effect on both 'pure' inflation expectations, as measured by the risk-neutral rate, and on the term premium, i.e., the extra compensation for inflation risks.

But relative impact of both factors varies across the tenors of the inflation swap forwards. The increase in inflation expectations has had a more pronounced effect on shorter maturities, which makes sense against the backdrop of positive inflation shocks. Expectations are still the most important factor behind the rise in longer-dated swaps, but a rise in the term premium, or uncertainty, has contributed more significantly (Figure 5).

[2] This indicator of core inflation surprises is only based on Eurozone and Spanish data due to availability.

[3] Since inflation swaps are based on a 3-month lagged HICP, they are quite sensitive to changes in the HICP base. We will therefore refer to 1y inflation swap forwards below, which should be less affected by this due to arbitrage.

[4] Note that these estimates can be sensitive to the choice of model, and alternative methods may yield different estimates of the term premium component. However, our findings are qualitatively similar to the ECB's estimates.

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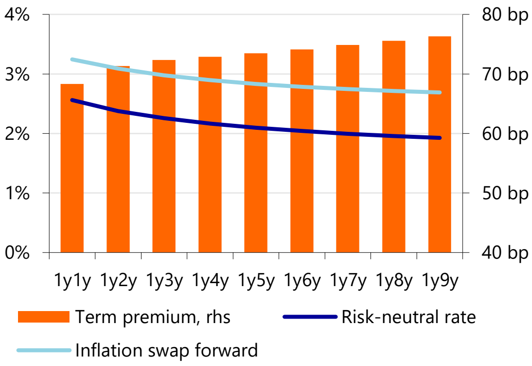
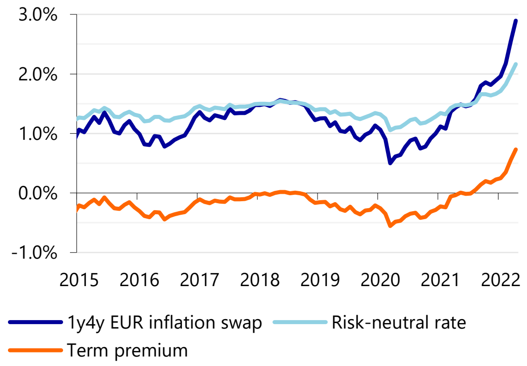
Figure 5: Different impact across tenors



Note: Data as of end-April 2022
Source: Bloomberg, Rabobank

Figure 6: Expectations or uncertainty?



Source: Bloomberg, Rabobank

The impact of recent inflation data becomes more apparent when comparing the term premium estimates across time. For reference, looking at the increase in the 1y4y EUR inflation swap forward from 1.9% at the start of the year to 2.9% end-April, we estimate that 50bp of this increase are driven by expectations while another 50bp are due to heightened uncertainty and risk (Figure 6). The contribution of the term premium is even bigger if one looks at the change since the trough in inflation swap rates.

The model identifies a clear shift in market participants' concerns from the risk of lower inflation or even deflation (as in 2020) to fear that future inflation turns out higher than expected. In recent history, there are two periods of negative inflation term premiums. The first starts around 2015, when the ECB ultimately decided to launch quantitative easing to combat deflation risks. By 2018, when the economy and labour market looked a lot healthier, this had disappeared. The second episode coincides with a slowing economy toward the end of 2019 and reached a low during the early stages of the pandemic. The term premium has recovered since then, but most pronouncedly so since the start of this year.

In other words the market is now distinctly accounting for the risks of higher inflation in coming years. This suggests that inflation expectations could collapse quite quickly if the inflation data and geopolitical situation were to improve significantly and lessen the market's risk perception. Yet, the rapid increase in the inflation risk premium that has been priced, suggests that markets are mainly concerned that future HICP releases could come in higher than expected. Perhaps more important for the ECB is the model's estimate of the risk-neutral rate. For the 1y4y year inflation swap forward, this has just broken through the 2.00%. So if we were to take away the element of uncertainty, market pricing still suggests that medium-term inflation expectations are now above the central bank's target. Meanwhile, longer tenors are at, or only slightly below, 2.00% (Figure 5). Of course, these 'pure' expectations are not static. However, with expectations above target, the ECB should be very cautious that the markets' increased perception of upside risks does not transform to outright higher expectations.

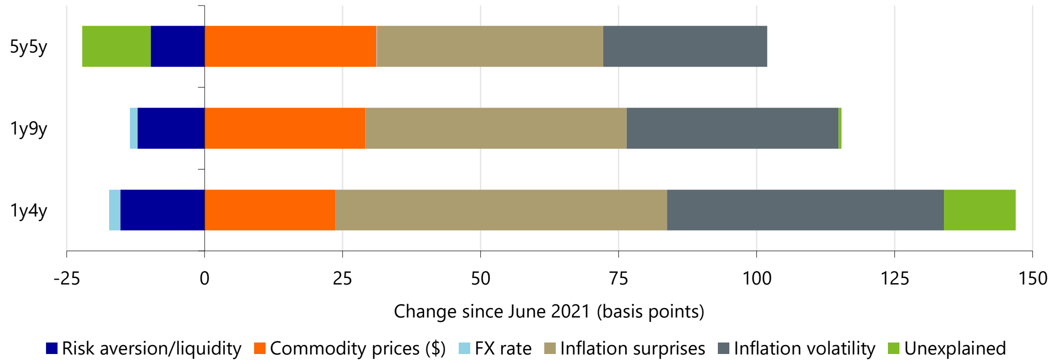
Can inflation expectations fade quickly?

That puts the focus on the factors behind the markets' repricing of the inflation outlook. To what extent was this commodities driven? Has the weaker euro played a role? And would clear signs that inflation has plateaued be sufficient to lead to a significant reversal in these inflation swaps? Can we make a plausible breakdown into 'structural' and 'transitory' elements?

We updated our model that breaks the changes in inflation swap rates down into several key components, choosing a time frame of June 2021 to April 2022 to capture most of the recent inflation surge. The estimates are based on a linear regression analysis, which typically explains around 50% of the monthly changes in the forward rates.

Inflation surprises (defined here as the monthly surprises in the Bloomberg economics survey), inflation volatility (the square root of the monthly change in the y/y headline inflation rate) and higher commodity prices (in USD) clearly stand out as the three main sources of upward pressures on inflation forward rates (Figure 7). Interestingly, however, the (trade weighted) euro has not played a significant role and –if anything– has negatively contributed so far, despite its recent weakness. Bear in mind, though, that 2020 saw a significant appreciation of the euro; so on balance it is still fairly close to the 2017-2019 average. The offsetting impact of rising risk aversion (defined as a rise in the VDAX) has played a modest role so far, although it has been on the ascend lately.

Figure 7: Breakdown of rise in inflation swap forwards between June 2021 and April 2022



Source: RaboResearch

The strong contribution of inflation surprises and inflation volatility corresponds to the observed increase in the term premium. However, it is noteworthy that the impact of inflation surprises and inflation volatility have been more pronounced in the shorter dated forwards. This makes sense considering the recent string of forecast errors, and attests to the –at least partially– transitory nature of the current inflation rates. Commodity price increases have played a slightly bigger role in the longer dated forwards (especially in a relative sense), which is perhaps somewhat counterintuitive. This does point to the possibility that the market sees the rise in commodity prices as a sign of more structural inflation, for example out of concerns that commodities are increasingly being 'weaponised'.

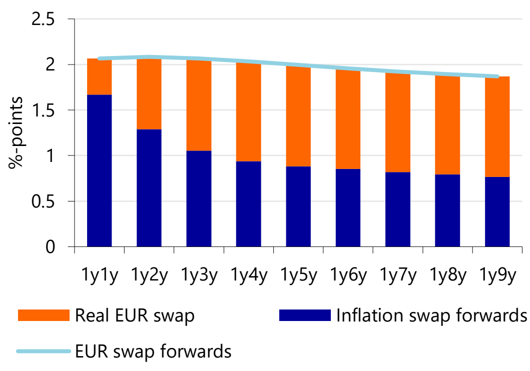
The big impact of inflation surprises is clearly the most worrying sign since it would take consecutive negative surprises in the future to see a decline in inflation swaps. For inflation volatility/uncertainty that would seem to be a more logical path and so we would treat this factor as being more transitory rather than permanent. Overall, however, there may be a good deal of persistence in these inflation swap rates, with the downside potential stemming mainly from a gradual decline in inflation volatility in the short-term and from a retreat in commodity prices in the long-term.

The 'S'-word

Finally, we observe that recent increases in (nominal) rates have been largely driven by the inflation outlook. The inflation swap forward accounts for roughly half of the increase in EUR swap rates at long-end of the curve, and as much as 75% in the shortest tenors (Figure 8). First of all, this suggests that when inflation concerns fade, nominal rates could quickly retrace from their current highs. Slower growth will probably help to some extent, since this should affect inflation expectations. However, the relatively weak ties between the recent moves in nominal swap rates and their 'real' counterparts suggests that the impact of slower growth could be less than usual.

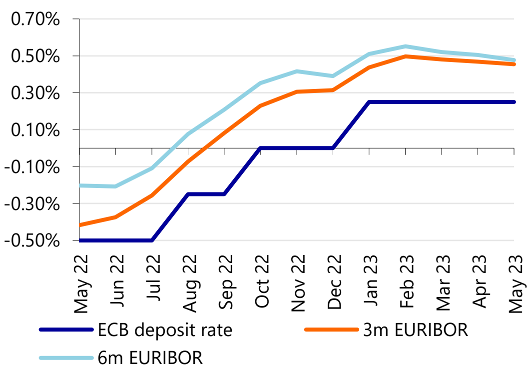
That makes sense, considering that the 'S'-word is increasingly being mentioned: a stagnation could be just one half of the stagflation-duo, and may mean less in terms of the inflation outlook. Indeed, given the geopolitical shifts that are abound and the continued impact of China's zero-

Figure 8: Change in forwards since 15 June 2021



Source: Bloomberg, Rabobank

Figure 9: Money market forecasts



Source: Rabobank

Covid policy on global supply chains a regime shift to a structurally higher inflation rate can no longer be ruled out. Managing inflation expectations will therefore require decisive action from the ECB.

ECB: no more procrastinating

In short, the latest developments are again expected to have an upward impact on inflation. We believe that the ECB cannot ignore this and cannot afford to delay any longer. Therefore, we have again accelerated our timeline for the ECB, with a lift-off now seen in July. This should give the ECB more space for rate hikes this year. We have therefore maintained the two hikes we had already pencilled in for September and December, taking the deposit rate to +0.25% by year-end.

While the ban on Russian oil is still a work in progress, we fully expect the EU to implement this embargo. This will once again put upward pressure on inflation. Meanwhile, there is evidence that inflationary pressures are broadening across categories. As we have argued in the past, the supply-driven nature of this inflation is usually beyond the power of central banks. However, there are two aspects where the ECB can and should act.

First of all, as the Fed signalled more 50bp hikes, policy divergence continues to weigh on the EUR. This in turn reinforces the rising energy prices and worsens imported inflation – even though our analysis above suggests that the impact is still limited. Secondly, our term premium model suggests that risk-neutral expectations of medium-term inflation are now at or above the ECB's target. At the same time, a sharp recovery in the term premium signals that the market is increasingly concerned about the risks that inflation may surprise to the upside yet again. While expectations and nominal yields could still reset quite quickly when the commodity and supply chain bottlenecks improve, the risks of a regime shift to structurally higher inflation have certainly increased. We believe that the ECB cannot afford this risk, as it would likely cement market expectations above the Bank's 2% target, which would be significantly harder to undo – as the Fed is currently experiencing.

With that in mind, we also see risks of an uninterrupted sequence of hikes in the second half of this year, i.e. there is a risk that the ECB also does a quarter point in October. Nonetheless, we do still believe that the ECB is starting its hiking cycle just as inflation is about to hit the peak and just before the stagflationary impact on growth is about to become truly visible. We therefore see limited scope for a protracted hiking cycle, and don't expect it to continue in 2023. Likewise, activity stalling earlier than expected would bring downside risks to the December meeting.

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