Joachim Nagel: What can we learn from the recent disinflation episode?

Dinner speech by Dr Joachim Nagel, President of the Deutsche Bundesbank, at the Central Bank Research Association (CEBRA) Annual Conference, Frankfurt am Main, 29 August 2024.

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1 Introduction

Ladies and gentlemen,

It is a great pleasure for me to speak at today's conference dinner.

Research is very important in the field of central banking. This is demonstrated most notably every year at the ECB Forum on Central Banking in Sintra and the Federal Reserve's Jackson Hole Economic Symposium, where central bank governors gather to listen to and discuss with researchers.

Central bank research equips policymakers with the analytical foundation needed to understand and navigate the complexities of the economy. I am therefore delighted that so many researchers have come to Frankfurt to present and discuss their work at the CEBRA Annual Conference.

While Frankfurt's natural surroundings may not be quite as spectacular as the Portuguese Riviera or the Rocky Mountains, the city itself, however, is much more accessible. In addition, as the home of two central banks and multiple renowned academic institutions, Frankfurt has developed into a hub for central bank research.

2 Drivers of the latest surge in inflation and the response from monetary policy

It is clear that monetary policy benefits greatly from economic research. Research also helps to improve our understanding of the most recent episode of disinflation. Today, I will talk about what we can learn from this episode.

Of course, monetary policy decisions are not based solely on scientific recommendations–after all, it is called monetary *policy* for a reason. Instead, decisions are also rooted in the judgement of policymakers–and this is likely to remain the case.

When making their decisions, monetary policymakers are always faced with some degree of uncertainty. That is why a certain diversity of opinion among them as well as scope for their own judgement are considered features, not bugs.

In particular, turning points in the interest rate cycle are often subject to intense debate.[1] I am certain that you will recall the discussions that took place before the start of the most recent cycle of interest rate hiking.

At that time, some argued that the high rates of inflation were driven mainly by the supply side and were only temporary in nature. Raising interest rates would have therefore done more harm than good.

We now know that the supply shocks were more persistent than initially believed. Moreover, research has shown that demand also played an important role. Not least, expansionary fiscal and monetary policy support measures in response to the COVID-19 pandemic stimulated aggregate demand.

Eickmeier and Hofmann found that demand factors made a sizeable contribution to the most recent rise in inflation in the euro area, though to a somewhat smaller extent than supply factors.[2] For the United States, they found demand to be more important than supply. And, in Sintra, Giannone and Primiceri presented their conclusion that demand dominated the recent surge in inflation in the euro area.[3]

In any case, I am glad that we decided to act and start raising key interest rates in July 2022. While this may have been late, it was not too late to prevent inflation expectations from becoming de-anchored.

Thanks to monetary policy tightening as well, inflation has fallen significantly since its peak in the autumn of 2022. In the euro area, the HICP headline rate now stands at 2.6%–less than a quarter of what it was at its peak of 10.6% in October 2022. The rapid decline in energy and food prices, which had risen sharply after Russia's invasion of Ukraine, was certainly a major factor. But monetary policy contributed to the decline in inflation, too.

Last week, Carolin Pflueger presented a paper in Jackson Hole. On the basis of US data, she found that the swift rise in interest rates had probably been "important for containing the rise in inflation expectations".[4]

While we are close to it, we have not yet reached our medium-term target of 2%. In the euro area, headline inflation has been around 2.6% for ten months now. Core inflation, especially services inflation, remains elevated and is a matter of concern for us.

Nevertheless, looking at what we have achieved since October 2022, and given the improved medium-term inflation outlook, we decided to cut key interest rates in June. That being said, a cautious approach is warranted. In July, we decided to keep rates constant.

We will continue to carefully monitor incoming data, such as the August flash estimate that will be released tomorrow or the latest signs of weakening wage growth. We are thoroughly assessing whether these data corroborate our expectation of a timely return to our 2% target.

In two weeks, when the Governing Council holds its next meeting, ECB staff will provide us with new projections.

3 The recent global episode of disinflation and its economic costs

We are not yet fully through the period of heightened inflation–even though we may see headline inflation come close to target for a time in late summer.

Nonetheless, I would like to zoom out and take a look at the bigger picture. Because we can learn a great deal for our future monetary policy from the price developments of the past few years.

To some people, the surge and subsequent drop in inflation rates may have felt a bit like riding a roller coaster. And, much like a roller coaster, inflation can trigger strong emotions and fear. However, while many people willingly ride roller coasters because they love the rush of adrenaline, almost nobody likes high inflation.

The fear of roller coasters may originate from a variety of sources. Among them could be fear of heights, fear of speed, or fear of being trapped. Similarities to the inflation rate immediately spring to mind: the fear of its height, the fear of the speed at which it rises, and the fear of being trapped by being unable to make ends meet.

The actor John Barrymore summed up this final fear very succinctly by saying: "Why is there so much month left at the end of the money?"

More scientifically, a recent paper by Stefanie Stantcheva provided survey-based evidence for the reasons why people dislike inflation.[5] In short, her answer is that many individuals feel that inflation systematically and durably erodes their purchasing power. Moreover, she writes, "inflation triggers stress and emotional reactions."

This is also the finding that we obtained from our survey of households.[6] And, as an aside, this sentiment may also have an impact on private consumption. Even though inflation is falling and incomes are rising again, consumption has so far not picked up as expected.

Inflation is painful for both individuals and the economy as a whole. However, it is not only the rise in inflation, but also its decline, known as disinflation, that is often associated with pain.

Experience and research have taught us that monetary policy tightening leads to successful disinflation, because tightening acts as a brake on economic activity. Lowering inflation thus comes at a price in terms of temporarily weaker growth.

A popular yardstick for measuring the economic cost of disinflationis the "sacrifice ratio". This measures the percentage deviation of GDP from its trend in relation to the decline in underlying consumer price inflation.

Bundesbank economists recently studied almost 230 episodes of disinflation in 46 advanced and emerging market economies since 1960.[7] And, in line with the available

literature, they found an average sacrifice ratio of approximately one.[8] This means, for example, that a reduction in the inflation rate by five percentage points "costs" on average five percent of GDP.

However, the economic costs during the current period of disinflation appear to be well below this historic average, they found. Their calculations demonstrate this for almost all major advanced economies.

Given the rapid and strong tightening of monetary policy, one would have expected considerable losses in output as well as sharp recessions. But, while the restrictive monetary policy measures slowed these economies, there have been no sharp recessions. Overall, the current process of disinflation has been relatively painless thus far.

Of course, some losses might still be yet to come. Nevertheless, even after factoring the moderate outlook for growth into the calculation, the sacrifice ratios remain rather low.

Among the economies under review, Germany has the highest sacrifice ratio, which has attracted particular attention from German newspapers. "Die Welt", for example, ran the headline "Germany, the lonesome loser".

This is clearly an exaggeration, because even Germany's sacrifice ratio is still below average. However, I will not be focusing on the reasons for the differences between countries and will instead try to explain this phenomenon in general.

4 Possible explanations for the comparatively painless process of disinflation

So why has the current episode of disinflation been less painful compared to previous ones? There are a variety of reasons.

Take the rapid fall of energy prices, for example. During the past year, this was a major driver of disinflation. But, at the same time, it stimulated the economy.

The same applies to the resolution of supply chain disruptions. This lowered inflation and boosted economic activity by removing obstacles to production.

Other reasons relate to factors that support demand, such as the pent-up demand from the coronavirus pandemic.

I am sure you will all remember the time when the pandemic forced us to stay at home and prevented us from spending money. Think back to the closures of restaurants and bans on travel. During this time, many households accumulated involuntary savings. According to ECB estimates, households in the euro area accumulated savings of around €1 trillion more than they would have otherwise.[9]

Catching up with consumption bolstered demand once the pandemic containment measures were lifted. And, to some extent, this compensated for the costs of disinflation.

Moreover, in many countries, relatively loose fiscal policies mitigated the drag. Many of these measures supported the global economy directly through higher government demand.

In addition, the investment behaviour of firms has changed over past decades. Physical investment has been increasingly replaced by intangible investment, such as in software or patents. As intangible assets are not suitable as collateral for loans, intangible investment activities are less responsive to changes in interest rates.

Furthermore, due to long interest rate fixation periods during the period of low interest rates, interest rate rises are becoming apparent as a cost factor only gradually.

In the past, disinflation has often been associated with increased unemployment. However, the current process of disinflation has not yet led to any significantly higher unemployment figures. Instead, we are still seeing tight labour markets in many advanced economies.

During the post-pandemic recovery, many firms had difficulties in filling higher numbers of vacancies. This experience, and the prospect of rising labour shortages due to demographic change, likely prompted firms to continue hiring new employees. As a result, labour demand has grown more sharply than labour supply over the past four years.

A final reason for the general observation of low sacrifice ratios is that monetary policy may have been somewhat less restrictive than assumed. This would be the case if the natural rate of interest were higher than thought.

The natural rate of interest, also known as r-star, is the real interest rate that would prevail if the economy were operating at its potential and inflation were at target. If a central bank sets its short-term nominal interest rate so that the real interest rate is above r-star, monetary policy is said to be "tight". If the real rate is below r-star, monetary policy is said to be "loose".

The natural rate moved downwards over a number of decades. At present, there are indications that it might have risen in a number of advanced economies since the pandemic.[10] If this is indeed the case, the higher key interest rates may have resulted in less tightening and less disinflation.

However, r-star is a "blurry guidepost for monetary policy".[11] Estimates of r-star are notoriously uncertain. Nobody knows exactly where it is. It would therefore be unwise to rely too much on the natural rate of interest when making decisions of monetary policy.

5 Lessons learned from the most recent episode of disinflation

So, as you can see, there are a number of explanations why the output costs of the current process of disinflation have been comparatively low. But what are the implications of recent experiences for monetary policy, especially in the euro area?

Above all, we are not there yet. While our 2% target is in sight, we have not reached it.

After the roller coaster took a steep descent at the beginning of the disinflation process, we are now on a bumpier part of the track, with little ups and downs. While this stretch does not cause the stomach-churning feeling that you get during a steep drop, you still feel shaken.

Due to elevated services inflation, in particular, headline inflation is likely to remain above target well into next year. And this results not least from the tight labour market.

As trade unions are in a good bargaining position, they can achieve relatively high wage settlements. But higher wages lead to higher prices in the labour-intensive services sector, especially as productivity growth is weak.

Moreover, there is a risk that a somewhat stronger economic recovery could further delay the return to our target.

Taken together, a timely return to price stability cannot be taken for granted. Therefore, we need to be careful and must not lower policy rates too quickly.

All roller coasters are similar, but each one is different. The same is true of inflation cycles.

We cannot expect future disinflation processes to be as painless as this one.

Many of the reasons for the unusually low sacrifice ratios are a result of the specific circumstances of the last few years. Recent experiences must not give the impression that, from now on, combating inflation will always cost less than it has in the past.

Our job as policymakers is to restore price stability in a timely manner and then keep inflation under control.

6 Conclusion

Ladies and gentlemen,

When we ride a roller coaster, we have to stay inside the restraints. If we are lucky, we get to the point when we think we are done, with no more thrills ahead. Hopefully, that's where we are right now on our inflation ride–the worst is over. But we all know that we have to stay inside the restraints until the ride is over.

That's what we will do as central bankers–until we are durably back to target.

Thank you.

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[1] See, for example, Forbes, K., J. Ha and M. A. Kose (2024), Rate Cycles, ECB Forum on Central Banking, in particular footnote 3 and section 6

[2] Eickmeier, S. and B. Hofmann (forthcoming), What drives inflation? Disentangling demand and supply factors, International Journal of Central Banking, previous version available as Deutsche Bundesbank Discussion Paper No 46/2022.

[3] Giannone, D. and G. E. Primiceri (2024), The drivers of post-pandemic inflation, ECB Forum on Central Banking, 1-3 July 2024.

[4] See Bauer, M. D., C. E. Pflueger and A. Sunderam (2024), Changing Perceptions and Post-Pandemic Monetary Policy, Working Paper, 1 August 2024, p. 29.

[5] Stantcheva, S. (2024), Why Do We Dislike Inflation?, Brookings Papers on Economic Activity (BPEA), Spring 2024.

[6] See Nagel, J. (2024), Introductory statement to the press conference presenting the Annual Report 2023.

[7] Deutsche Bundesbank (2024), The global disinflation process and its costs, Monthly Report, July 2024.

[8] See, for example, Ball, L. (1994), What determines the sacrifice ratio?, in N. G. Mankiw (ed.), Monetary policy, The University of Chicago Press, pp. 155-193; Katayama, H., N. Ponomareva and M. Sharma (2019), What determines the sacrifice ratio? A Bayesian Model Averaging approach, Oxford Bulletin of Economics and Statistics, Vol. 81 (5), pp. 960-988; and Cecchetti, S. et al. (2023), Managing disinflations, CEPR Discussion Paper, No DP18068, CEPR Press.

[9] Battistini, N. and J. Gareis (2023), Excess savings: To spend or not to spend, The ECB Blog, 2 November 2023.

[10] Benigno, G. et al. (2024), Quo vadis, r*? The natural rate of interest after the pandemic, BIS Quarterly Review, March 2024, pp. 17-30; Brand, C., N. Lisack and F. Mazelis (2024), Estimates of the natural interest rate for the euro area: an update, published as part of the ECB Economic Bulletin, Issue 1/2024; Schnabel, I. (2024), R(ising) star?, speech at The ECB and its Watchers XXIV Conference, 20 March 2024; for a more sceptical view regarding a rising r*, see Williams, J. C. (2024), R-Star: A Global Perspective, remarks at the ECB Forum on Central Banking, Sintra, Portugal.

[11] Benigno, G. et al. (2024), op. cit.