Joachim Nagel: Under what circumstances is the inflation rate too low?

Speech by Dr Joachim Nagel, President of the Deutsche Bundesbank, at the "Monetary and financial colloquium", organised by the Karlsruhe Institute of Technology (KIT), Karlsruhe, 9 February 2026.

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1 Introduction

Ladies and gentlemen, dear students,

I am delighted to be here with you all today–back at my old stomping ground. "The digital future of money and the economy"–that is our topic for today. The focus of my talk–as you might expect from a central banker–will be money.

If you ask me about the future of money, my answer is clear, and many of you will already know what it is: the digital euro. Why the digital euro? There are two aspects that are especially important to me. First, we are all making our payments using increasingly digital methods. Second, in many areas, we are experiencing a painful realisation of how risky it is when Europe is dependent on the goodwill of others.

We have a high degree of dependence in digital payments, in particular: almost two-thirds of all card payments in Europe are processed by non-European providers. With the digital euro, we could bring this dependence to an end. The digital euro would be a digital complement to cash: independent of non-European providers, easy to use, and, thanks to its offline functionality, resilient even in times of crisis. This is how I see the digital future of money.

Since we have been able to address that question so quickly, I would now like to focus the main part of my speech on a different issue for the future–the value of money–and on what the ECB Governing Council is doing to safeguard price stability. To this end, I would first like to take you through a brief thought experiment.

Imagine that you have invited your friends over for dinner. After going out shopping, you come back home to your flat. You notice that it's a bit too chilly. Your first instinct is to quickly turn up the heating before your guests arrive.

But then you realise that your underfloor heating always takes a while to warm up. At that moment, the afternoon sun shines through the kitchen window onto your face. You think that this will warm up your flat, too–so maybe you don't actually need to turn up the heating.

A little later, you remember that you should really air out the house again. But this would lower the inside temperature. So you should turn up the heating after all? And, if so, by how much? It's not an easy decision.

As central bankers, we are faced with similar considerations. Our "temperature" is the rate of inflation. And, instead of 20 degrees Celsius, our "ideal room temperature" is 2%. Since last summer, our experts have forecast that inflation this year and next year will be just below this "ideal room temperature" of 2%. According to initial estimates, it fell to 1.7% in January.

Does this mean that we should adjust our thermostat–which is to say interest rates–right away? Or are there other factors that we need to take into account as well? I would like to discuss these questions in two stages.

In the first stage, I will briefly outline the legal and conceptual foundations of our monetary policy decisions–our heating system, so to speak. In the second stage, I will draw on current figures and developments to explain what this means for monetary policy in practice.

2 Legal and conceptual foundations

2.1 Price stability at 2%

With regard to the foundations, the primary objective of the euro area central banks, as enshrined in the European Treaties, is to maintain price stability.[1] In addition, the Eurosystem supports general economic policy in the European Union–provided that this does not prejudice its objective of price stability.

However, what the Treaties do not stipulate is a precise definition of "price stability" itself. It is the ECB Governing Council's job to set out this objective in concrete terms. It did so most recently in 2025, thereby confirming the view that it has held since 2021:[2] price stability can be best maintained when the ECB Governing Council aims for 2% inflation over the medium term. The ECB Governing Council's target is symmetric. Symmetry, in this context, means that negative deviations of inflation from the target are equally as undesirable as positive deviations.[3]

2.2 The medium term

Price stability must be maintained over the medium term. But what does this mean exactly?

First of all, monetary policy–like underfloor heating–has an effect with a certain time lag. Much like adjusting a thermostat, adjusting interest rates does not have an immediate impact in all places. This is where the monetary policy transmission process comes in. According to most empirical models, the main effects on the inflation rate take hold after around twelve to eighteen months.[4]

This means that monetary policy can have only a limited impact on the rate of inflation in the short term. An immediate monetary policy response is therefore particularly necessary if we expect that the inflation rate will deviate markedly from our target over the medium term.

In addition, this medium-term orientation takes account of the fact that some changes in the inflation rate are, in all likelihood, only temporary in nature. A key example of this is supply-side fluctuations in the prices of energy and food.

Political events, for instance, can cause oil prices to rise sharply in the short term. We then see this quite clearly the next time we go to the petrol station. However, if political tensions abate again shortly thereafter, prices will fall.

If monetary policy were to respond immediately to these kinds of developments, it would have to make constant adjustments to interest rates–sometimes tighter, then looser again. Such a back and forth could lead to undesirable volatility in the financial markets and thereby also have an unnecessary negative impact on the real economy. This is therefore an argument against an immediate response from monetary policy.

Here, however, there is one thing that we must always bear in mind: not only current inflation is significant for monetary policy. The expectations of economic agents also play a major role. This is because they have an influence on the actual development of the inflation rate, for example via their wage-setting and price-setting behaviour.

As a result, monetary policy is only able to refrain from making adjustments to interest rates if inflation expectations are firmly anchored. If, instead, there is a risk of long-term inflation expectations becoming unanchored from the inflation target, then monetary policy must respond decisively.[5]

Lastly, this raises the question of how long the medium term actually is. Unlike for the inflation target, there is no exact quantitative definition here. In the event of major supply shocks, the medium term is generally interpreted to be somewhat longer. By contrast, if there is a risk of inflation expectations becoming unanchored from our price stability target, then the medium term is considered to be shorter.

So that about covers our price stability objective and how it is operationalised.

2.3 Interest rates as the most important instrument of monetary policy

How exactly is the ECB Governing Council trying to achieve its price stability objective? The key interest rates are the Eurosystem's most important monetary policy instrument. At present, the deposit facility rate is the main rate for steering the monetary policy stance.

In theoretical models of monetary policy, the central bank often follows a simple interest rate rule.[6] The interest rate rule specifies whether and how the monetary policy interest rate should be adjusted depending on inflation and economic activity. These kinds of simple rules are academically legitimate simplifications of reality.

In practice, however, the reaction function of a central bank is much more complex. Since its meeting of 16 March 2023, the ECB Governing Council has explicitly referred to three factors when making its interest rate decisions. First, its assessment of the inflation outlook in light of the incoming economic and financial data. Second, the dynamics of underlying inflation. And third, the strength of monetary policy transmission.

The first factor–the assessment of the inflation outlook–is based on the Eurosystem staff macroeconomic projections. In addition to what are known as "point forecasts", risk scenarios have become increasingly important in recent years. These scenarios provide answers to "what if?" questions. For example, how would inflation develop if the US administration were to adjust tariffs again?

The second factor is underlying inflation. What does this mean? Underlying inflation measures persistent, general inflationary pressures that go beyond temporary fluctuations. It therefore aims to ignore short-term fluctuations and instead reflect broad-based price developments.[7] An important measure of underlying inflation is core inflation, which is the rate of inflation excluding energy and food. As the prices of energy and food often fluctuate sharply over the short term, core inflation is significantly more stable.

The third factor is the strength of monetary policy transmission. If, for example, the strength of monetary policy transmission diminishes, larger or faster interest rate steps become necessary. These are the factors that influence our monetary policy.

To sum up, one thing is already clear at this point: short-term deviations in inflation from our target do not automatically result in changes to key interest rates. Instead, we always look at deviations within a wider context, taking a variety of factors into account.

3 From theory to practice

Now I would like to move from theory to practice. In recent years, the inflation rate in the euro area has gone up and down. In the run-up to the coronavirus pandemic, the inflation rate was below 2% for a number of years, considerably so in some cases. So it was cool inside the house. During this time, the ECB Governing Council turned the heating up to the maximum and did many other things to raise the temperature.

In 2021, we saw the start of an abrupt surge in inflation, which reached its peak in 2022. The inflation rate climbed from 0.3% in December 2020 to 10.6% in October 2022. There had never been such a sharp rise in prices since the beginning of European monetary policy in 1999. The Eurosystem responded decisively and raised key interest rates ten times between July 2022 and September 2023. The deposit facility rate was increased from
0.5% to a peak of 4%. We thus turned the heating down substantially.

Thanks, in part, to our decisive monetary policy response, the inflation rate has now returned to close to our target. This is why the ECB Governing Council was able to lower its key interest rates again between June 2024 and June 2025. Since then, the deposit facility rate has stood at 2%. Last week, too, the ECB Governing Council left the key interest rates unchanged. In January 2026, euro area inflation was 1.7%.

3.1 Inflation outlook

How could inflation develop from here? In their December 2025 projections, the Eurosystem staff forecast inflation to stand at 1.9% in 2026. For 2027, it is likely to fall to 1.8%, but then rise again to 2% in 2028. The inflation rate could thus slightly undershoot the inflation target of 2% over the next two years. For the medium term, however, the forecasts suggest that inflation will be right on target.

At our most recent meeting last Thursday, we did not have any new official projections. However, if we extrapolate the December 2025 projections using technical assumptions on oil prices, exchange rates and market rates, the inflation outlook is largely confirmed. The recent appreciation of the euro against the US dollar is also unlikely to have a significant impact on this assessment.

Furthermore, the risks to inflation are more or less balanced at present. In addition, long-term inflation expectations remain firmly anchored at our inflation target of 2%. This holds true for both surveys of professional forecasters as well as for inflation expectations calculated using financial market prices.

3.2 Underlying inflation

Thus far, I have focused on the headline rate of inflation. But what about underlying inflation? Core inflation–which excludes energy and food prices–was 2.3% in December 2025. The first flash estimate for January 2026 stands at a figure of 2.2%.

According to the latest projections from December 2025, core inflation will fall to 2.2% in 2026 and 1.9% in 2027, before rising slightly again to 2.0% in 2028. This key measure of underlying inflation therefore also suggests that price stability will be maintained over the medium term.

Within the core inflation rate, services, in particular, are making a strong contribution to rising prices. Here, persistently high price pressures are coming from wages. According to expert forecasts, these are likely to grow by around 3% over the next few years.

Overall, the potential undershooting of the 2% mark in the coming quarters is, on the one hand, quantitatively small, and, on the other hand, particularly attributable to volatile energy prices. At the same time, price stability will be maintained over the medium term and long-term inflation expectations are anchored.

Now I will explain what this means for monetary policy.

3.3 Strength of monetary policy transmission

To conclude, I would first like to briefly touch upon the strength of monetary policy transmission. The Bundesbank analyses this using a variety of models, and the results are quite clear: in recent years, both interest rate hikes and interest rate cuts have been transmitted to the financing conditions of enterprises and households largely in line with historical patterns.[8] As a result, there is currently no reason to assume that there will be any fundamental change in the transmission of monetary policy.

4 Conclusions for monetary policy

Ladies and gentlemen, in response to the question "Under what circumstances is the inflation rate too low?", my answer is as follows: we take action when the medium-term projection of the inflation rate deviates sustainably and markedly from our 2% target.

However, small, temporary deviations–especially for components that are prone to volatility, such as energy prices–do not necessitate a change in course when inflation expectations are anchored.

Much like when heating our homes, we don't adjust the thermostat at every whim of the weather, but control things while looking ahead–with a view to the big picture and the medium term. These conclusions hold true for the current situation, in which we could undershoot the inflation target. However, they would also hold true if we were to potentially overshoot the target. This is the symmetry of the inflation target that I mentioned at the start.

What exactly does this mean for monetary policy in the Eurosystem? In my opinion, many factors suggest that the current level of interest rates is appropriate. First, the undershooting of the target is short-term and small, and inflation is at our target of 2% over the medium term. Second, long-term inflation expectations are firmly anchored. Third, developments in the core inflation rate also suggest that we will achieve price stability over the medium term. And fourth, the transmission of monetary policy is proceeding as expected.

In my view, our steady-hand policy, which we have been pursuing since the summer of 2025, has proven itself and should be continued. Even if the inflation rate falls somewhat below our target in the coming quarters, there is no need for immediate action as a result.

Of course, this does not mean that we will never touch the "thermostat" again and no longer make adjustments to interest rates. We will continue to monitor the incoming data closely. And we stand ready to adjust our monetary policy stance in both directions as soon as this becomes necessary.

Thank you very much for your attention.

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[1] See Article 127 of the Treaty on the Functioning of the European Union.

[2] See European Central Bank (2025), The ECB's monetary policy strategy statement (2025) and Deutsche Bundesbank (2025), Key results of the 2024/2025 monetary policy strategy review, Monthly Report, July 2025.

[3] Until 2021, the inflation target was asymmetric: price stability was defined as an increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of less than 2% compared with the previous year. In 2003, the ECB Governing Council clarified that the inflation rate should be under, but close to, 2% over the medium term. Against the backdrop of the low rates of inflation from the mid-2010s onwards, the ECB Governing Council changed its price stability objective to a symmetric inflation target of 2% over the medium term in 2021. See European Central Bank (1999), The stability-oriented monetary policy strategy of the Eurosystem, Monthly Bulletin, January 1999, p. 39 and Deutsche Bundesbank (2021), The Eurosystem's monetary policy strategy, Monthly Report, September 2021.

[4] See Ramey, V. (2016), Macroeconomic Shocks and Their Propagation, Handbook of Macroeconomics, Vol. 2, pp. 71-162 and Bobasu, A. et al. (2025), Monetary policy transmission: a reference guide through ESCB models and empirical benchmarks, Occasional Paper Series 377, European Central Bank.

[5] See Deutsche Bundesbank (2025), op. cit.

[6] A well-known example is the Taylor rule. See Taylor, J. B. (1993), Discretion versus policy rules in practice, Carnegie-Rochester Conference Series on Public Policy, Vol. 39 (1), pp. 195-214.

[7] See Ciftci, M. and E. Wieland (2025), Underlying inflation measures for Germany, Deutsche Bundesbank Technical Paper No 04/2025.

[8] For comprehensive descriptions of the models used, see Deutsche Bundesbank (2023a), Developments in bank interest rates in Germany during the period of monetary policy tightening, Monthly Report, June 2023 and Deutsche Bundesbank (2023b), From the monetary pillar to the monetary and financial analysis, Monthly Report, January 2023.