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The new ECB monetary policy strategy and its implications for the current high-inflation episode

The Euro YearBook

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Governor

Ladies and gentlemen, good morning:

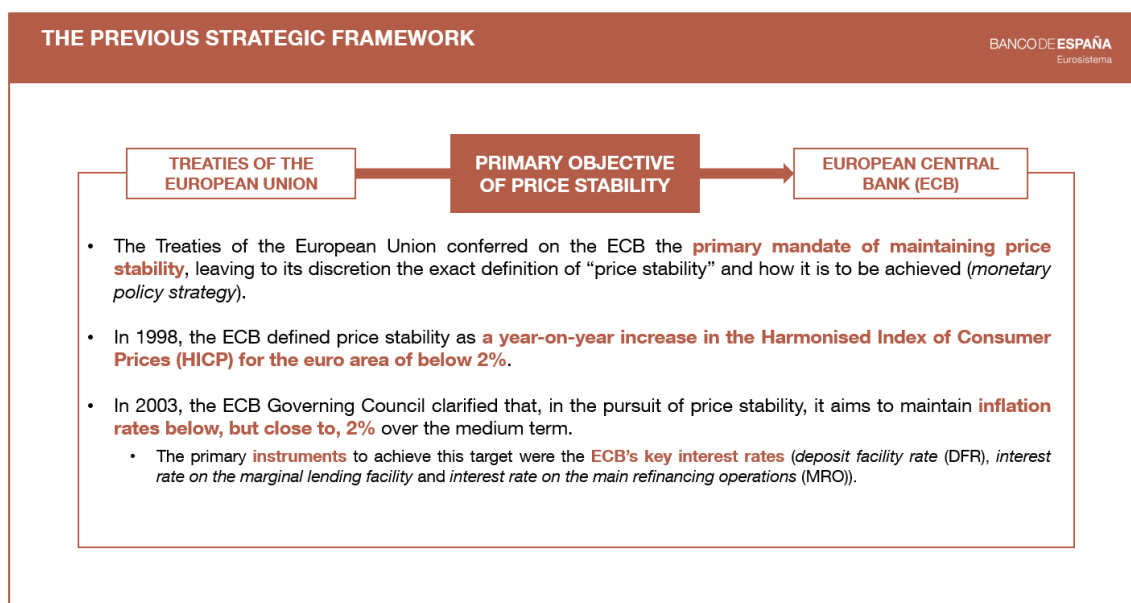
It is a pleasure for me to be able to participate in this meeting organised by Fundación ICO, Instituto Español de Analistas Financieros and Fundación de Estudios Financieros.

Here at this 2022 edition of the Euro Yearbook, I would like to deliver a few remarks regarding the main aspects of the review of the monetary policy strategy of the European Central Bank (ECB) that was concluded in the middle of last year. I would also like to emphasise why our new monetary policy strategy provides us, in the Eurosystem, with the appropriate framework and tools to handle the high-inflation episode that we are currently confronting.

I will structure my remarks today into three parts. First, I will explain why, given the profound structural changes that the euro area has experienced in recent decades, it was appropriate for the ECB to undertake a comprehensive review of its monetary policy strategy. In particular, I will talk about the fall in the natural interest rate that has taken place over the last few decades – in the euro area and in most advanced economies – and how this secular process has imposed some limitations – through the interest rate lower bound – on the conduct of monetary policy.

In the second part of my talk today, I will set out the main aspects of the ECB's new monetary policy strategy, and I will explain the logic behind some of the changes we have adopted. In particular, among the different elements that make up this new strategy, I will focus on the new symmetric 2% inflation target and on the forward guidance on interest rates, whose role in defining and communicating the ECB's monetary policy is key.

Finally, I would like to devote some time to analysing, through the lens of our new strategy, the high-inflation episode that we are currently witnessing worldwide, including in the euro area. In particular, I would like to walk you, step by step, through the considerations that should guide the ECB's response to this shock under the new strategy.



1 Why it was appropriate to revise the ECB's monetary policy strategy

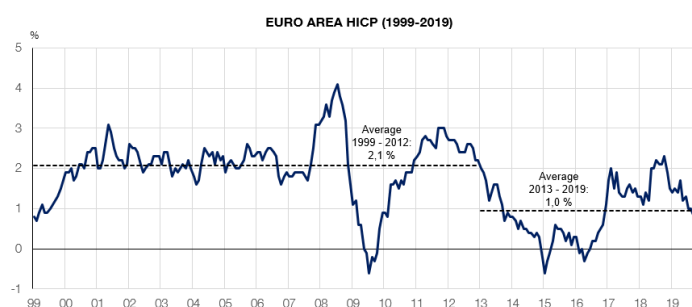
The Treaty on the Functioning of the European Union (TFEU) confers on the ECB the primary mandate of maintaining price stability in the euro area as a whole. However, the TFEU leaves to the discretion of the ECB the exact definition of “price stability” and the manner in which this goal is to be achieved, this being known as the “monetary policy strategy”.

It is important to note that this monetary policy strategy is not, and should not be, a static concept. On the contrary, this strategy should evolve over time in order to accommodate relevant structural changes in the economy and to ensure its effectiveness.

RESULTS FROM THE PREVIOUS STRATEGY

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- During the **first decade** of the euro, in a context of mainly inflationary shocks, **inflation remained close to target**. However, a **second phase** began with the onset of the global financial crisis in 2008 marked by **disinflationary shocks** and characterised by **interest rates close to their lower bound**.
- From 2013 to 2020, inflation was persistently below its target level.



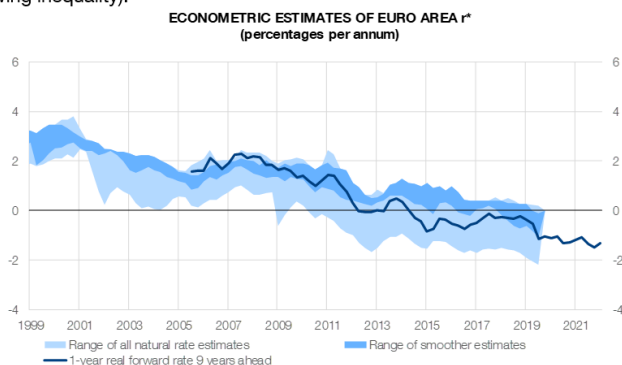
- Against this background, and in view of the structural changes in the euro area economy over the previous two decades, **the ECB launched the review of its monetary policy strategy** in January 2020.

Against this background, the fact that inflation in the euro area remained persistently below the ECB's target level during the period that ran between the global financial crisis and 2020 made clear that a comprehensive review of our monetary policy strategy (which was last revised in 2003) was appropriate.

ACCORDING TO ECONOMETRIC ESTIMATES, THE EURO AREA NATURAL RATE OF INTEREST HAS BEEN IN PROGRESSIVE DECLINE OVER RECENT DECADES

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- This fall is mainly attributable to structural factors that have shifted the balance between the supply of savings and the investment demand (decline in trend productivity growth, demographic factors -such as population ageing-, and growing inequality).

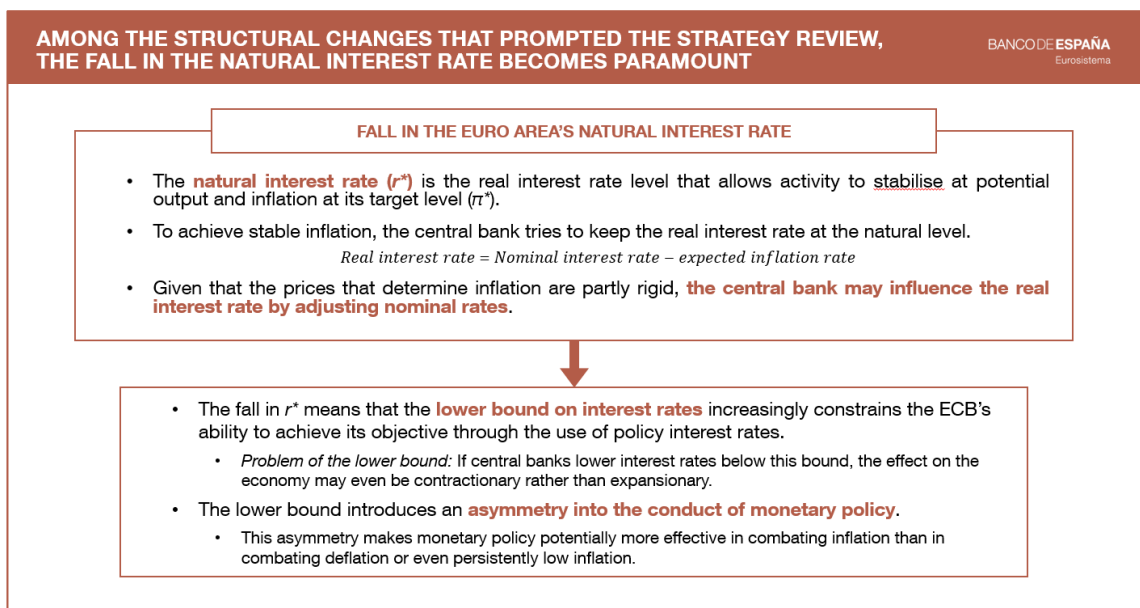


Sources: ECB WGEM Report "The natural rate of interest: estimates, drivers, and challenges to monetary policy", OP, No 217; Aeyels (2016); Brand, Goy, Lemke (2020); Brand, Mazzi (2019); Fiorentini, Galesi, Pérez-Quirós, Sentana (2016); Geiger and Schupp (2018); Holston, Laubach, Williams (2017); Jorocinski (2017); Johansson and Mertens (2021) and ECB calculations.
Notes: Ranges span point estimates across models to reflect model uncertainty and no other source of r^* uncertainty. The dark shaded area highlights smoother r^* estimates that are statistically less affected by cyclical movements in the real rate of interest. The 1-year-in-9-years real forward rate is constructed by subtracting the 1-year-in-9-years ILS forward rate from the implied nominal 1-year-in-9-years ESTR forward rate.
Latest observation: 25 January 2021.

To understand why inflation in the euro area remained below target for more than a decade, despite the fact that the ECB maintained a rather accommodative monetary policy stance, one must necessarily take into account the secular decline in the natural interest rate and the limitations that such a decline imposes, through the interest rate lower bound, on the conduct of monetary policy.

The equilibrium or natural interest rate (r^*) is defined as the real interest rate that simultaneously maintains output at its potential level and inflation stable at its target level. This rate, which cannot be observed directly, can only be estimated, with some degree of uncertainty, using econometric techniques.

According to available estimates, the natural interest rate appears to have progressively declined in recent decades in advanced economies and, in the case of the euro area, estimates even place it at negative levels.¹ This secular drop in r^* is attributed, among other factors, to the decline in trend productivity growth, certain demographic developments and widening inequality. All of these are factors that will have changed the balance between the supply of savings and the demand for investment.



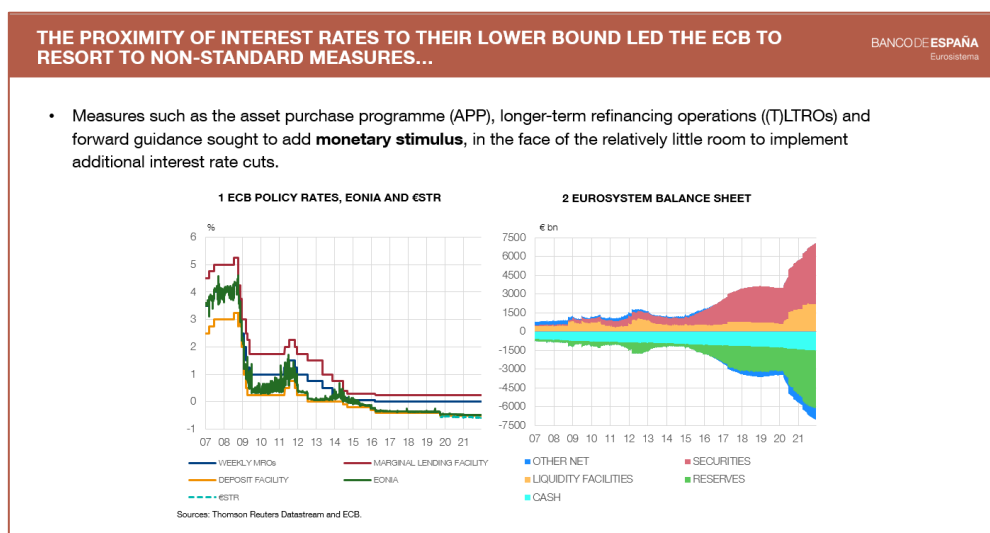
And, why is this important for monetary policy? Well, the answer is clear.

The decline in the natural interest rate in recent decades means that, in order to stabilise inflation, real interest rates (and, therefore, nominal interest rates) need to be lower now than two or three decades ago. The problem is that nominal interest rates cannot drop significantly into negative territory, since highly negative interest rates would adversely affect the financial sector's intermediation capacity, having a detrimental impact on the

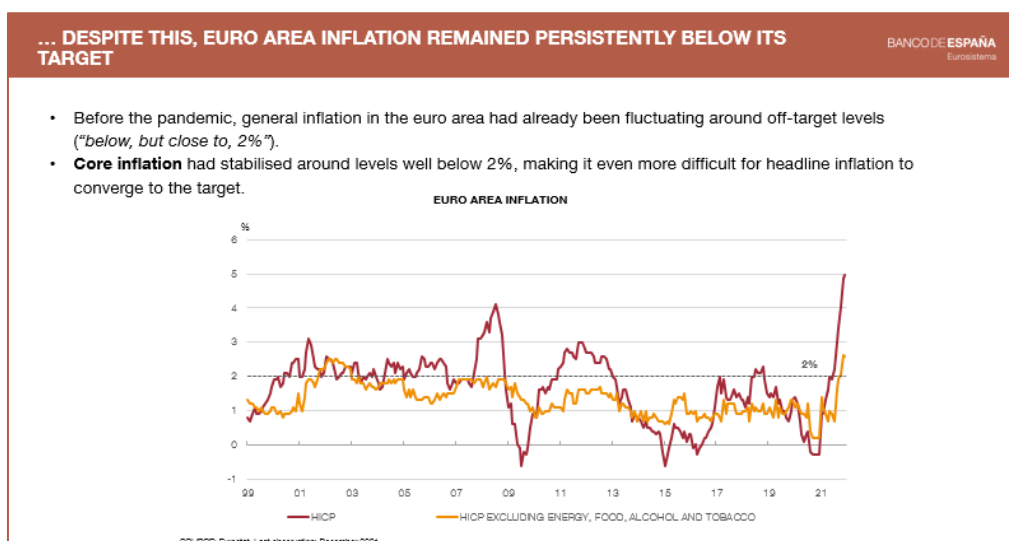
¹ For example, Holston et al. (2017) estimate that in 2016 the natural rate in the United States was positive but very close to zero.

supply of credit, economic activity and inflation.² Hence, there is a lower bound to nominal interest rates.

This lower bound introduces an asymmetry into the conduct of monetary policy. This asymmetry means that monetary policy is potentially very effective in combating high inflation episodes, but less so in combating deflation or even persistently low inflation.³



In the years that followed the Great Financial Crisis, in a context of significant disinflationary pressures, the proximity of interest rates to their lower bound led the ECB to introduce a set of non-standard measures to provide sufficient monetary stimulus to preserve price stability. Among these measures, the asset purchase programme (APP), the targeted longer-term refinancing operations (TLTROs)⁴ and the forward guidance on the future path of interest rates can be highlighted.

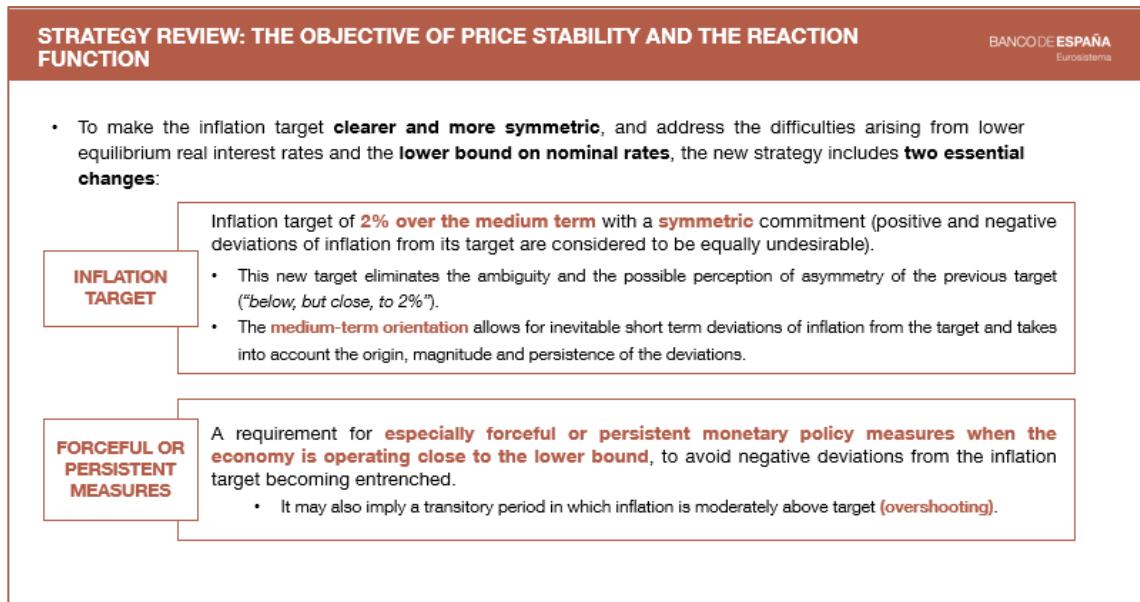


² See, for example, Brunnermeier and Koby (2018) for a discussion of the effect of interest rates on banks' profitability and their ability to lend.

³ See Banco de España (2019) for a detailed discussion.

⁴ Andreeva and García-Posada (2019) estimate the impact of TLTROs on banks' lending policies in the euro area.

Even though there is a broad consensus that these non-standard instruments have been effective in easing financing conditions and in supporting euro area inflation, economic growth and employment, their expansionary effects did not prevent inflation from remaining persistently below the ECB's target for much of the last decade. This led the ECB to review its monetary policy strategy in order to search for ways to better fulfil its price stability mandate.



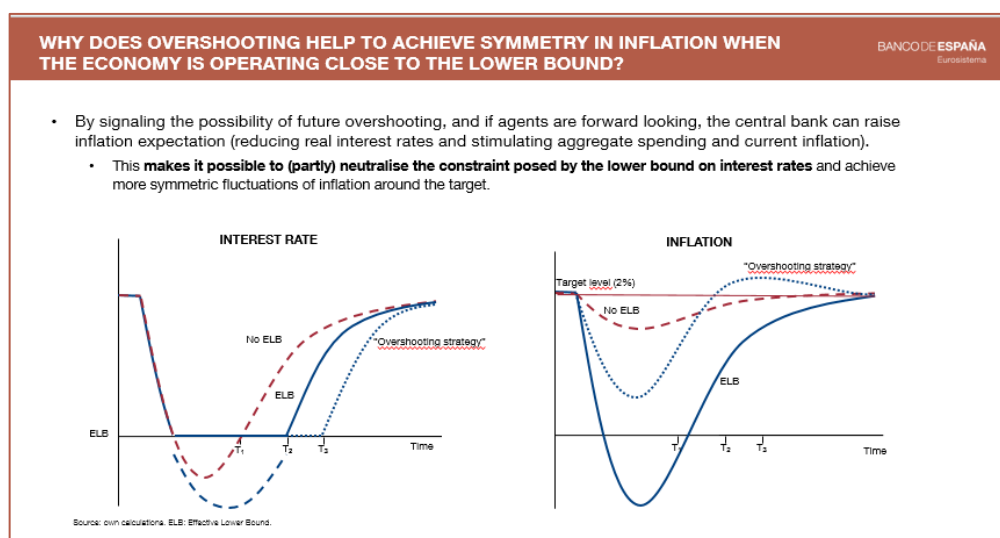
2 Main elements of the ECB's new monetary policy strategy

The unanimous adoption in July 2021 of a new monetary policy strategy was an important achievement for the Eurosystem. This new strategy has drawn on an immense collective effort by the staff at the ECB and the Eurosystem national central banks over 18 months. Among the many new developments that this review has brought with it, let me now focus very briefly on three key aspects. For those interested, I provide a more comprehensive description of the new strategy in my article "The European Central Bank's new monetary policy strategy", The Euro YearBook 2022.

First, the ECB has adopted a new medium-term inflation target of 2%. This target is symmetric in the sense that positive and negative deviations of inflation from the target are considered equally undesirable. As a result, the ECB has a clearer and more credible inflation target, since this 2% target eliminates the possible impression of asymmetry that could stem from the previous target ("below, but close, to 2%") and seeks to provide a clear anchor for inflation expectations.

As I will highlight later on in my talk, this definition also confirms the medium-term orientation of monetary policy that already existed under the previous strategy. This medium-term orientation provides room for inevitable short-term deviations of inflation from the target, as well as for lags and uncertainty in the transmission of monetary policy. Moreover, the flexibility embedded in this medium-term orientation also allows for an appropriate monetary

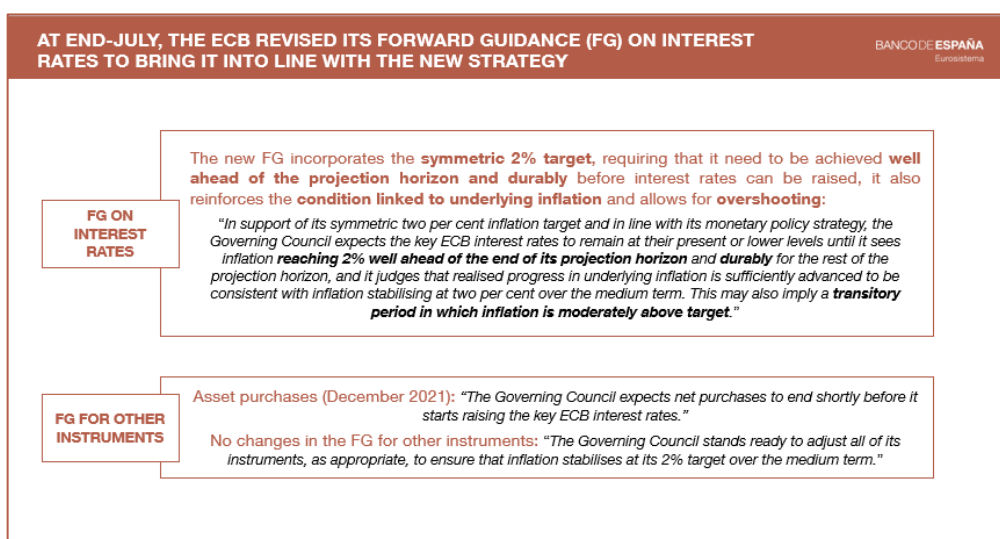
policy response to inflation deviations from the target that takes into account the origin, scale and persistence of the underlying shocks to inflation.



Second, the ECB has taken into account the monetary policy implications of the lower bound on interest rates. In particular, the new strategy establishes a requirement for especially forceful or persistent monetary measures when the economy is close to the effective lower bound, in order to prevent negative deviations from the inflation target from becoming entrenched. This may also imply a transitory period of overshooting in which inflation is moderately above target. I will also refer to this key aspect of the new strategy in the third part of my talk today.

And third, the ECB has made explicit that the set of policy rates remains its primary monetary policy instrument. However, in recognition of the effective lower bound on interest rates, the ECB has stated that it will also employ forward guidance, asset purchases and longer-term refinancing operations, or any other instrument, as appropriate.

In this respect, let me very briefly mention some relevant elements in relation to these non-conventional monetary policy instruments.



Regarding forward guidance on interest rates, at end-July 2021, the ECB revised this monetary policy tool to bring it into line with the new strategy. In particular, the revised forward guidance incorporates the 2% symmetric inflation target and establishes three conditions that need to be fulfilled before the ECB Governing Council raises its interest rates. First, we have to observe “that inflation reaches 2% well ahead of the end of its projection horizon”. As ECB President Christine Lagarde explained following the announcement of the new forward guidance, “well ahead” basically refers to the mid-point of our projection horizon, which covers two to three years.⁵

Second, inflation must be at 2% “[...] durably for the rest of the projection horizon”.

And third, the Governing Council must consider “that the progress realised in underlying inflation is sufficiently advanced to be consistent with inflation stabilising at 2% over the medium term”.

I will come back to this later on, but for now let me emphasise that these conditions, related to the medium-term inflation outlook and linked to underlying inflation, seek to avoid a premature tightening of our monetary policy in the face of increases in inflation above target when these are considered to be temporary or caused by some volatile or exogenous element, such as energy prices.

Finally, with respect to the APP, the Governing Council expects net purchases under this programme to end shortly before it starts raising the key ECB interest rates. Therefore, there is “chained forward guidance” whereby the horizon for net asset purchases remains linked to the moment in which the next interest rate hike takes place.

INFLATION HAS INCREASED SHARPLY. BY COMPONENTS, THE ENERGY AND FOOD EXPLAIN MOST OF THE INCREASE IN INFLATION IN THE EURO AREA			
BANCO DE ESPAÑA Eurosistema			
<ul style="list-style-type: none"> In January, headline inflation reached 5.1% and core inflation, 2.3%. Base effects from the sharp drop at the onset of the pandemic, supply bottlenecks and high energy prices are the main factors behind the increase in inflation in the euro area. 			
	EURO AREA HICP 2015 = 100		Change (%)
	Dec 2019	Dec 2021	
All-items HICP	105.4	110.4	4.7
All-items excluding energy & food	104.7	107.7	2.9
Food	107.5	112.5	4.6
Energy	107.0	125.4	17.2
Non-energy industrial goods	102.7	105.2	2.3
Services	105.9	109.2	3.1

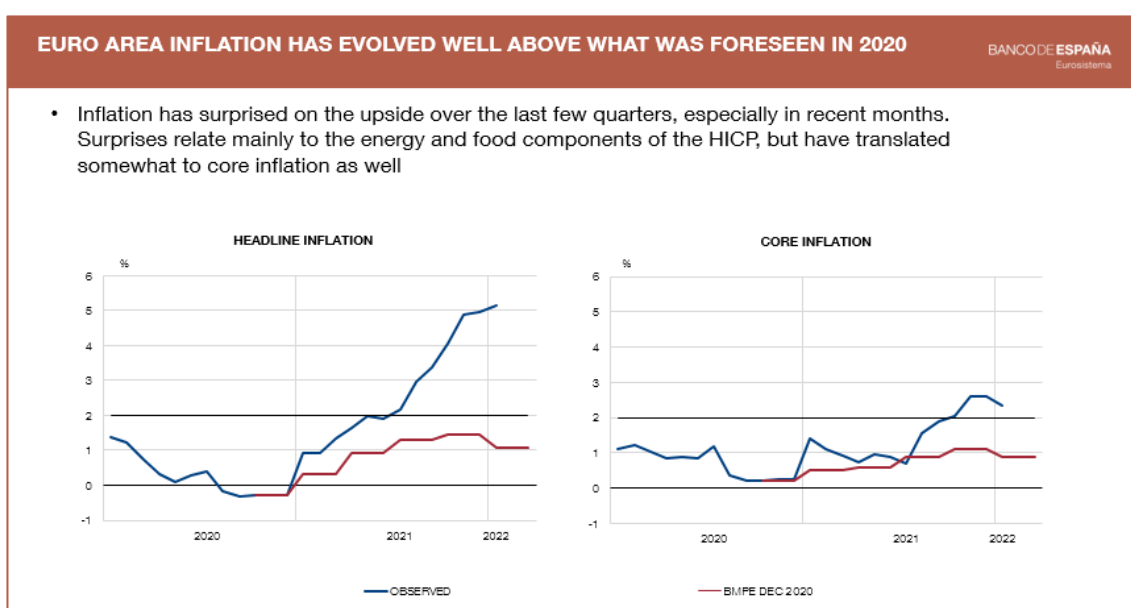
⁵ For more details, see the full transcript of the [Interview with the Governor published in Bloomberg](#) of 27 July 2021.

3 An analysis of the current high-inflation episode through the lens of the new ECB monetary policy strategy

The last part of my talk today refers to how the ECB is handling the high-inflation episode that has been taking place worldwide, and in the euro area, over the last few quarters. And, to be clear from the very beginning, let me emphasise that, in my view, the ECB's response to this shock can be perfectly rationalised in the context of the new monetary policy strategy that I have just sketched. In fact, this episode has already served to show the benefits of some of the key elements recently added to the ECB reaction function.

3.1 An assessment of current inflation dynamics

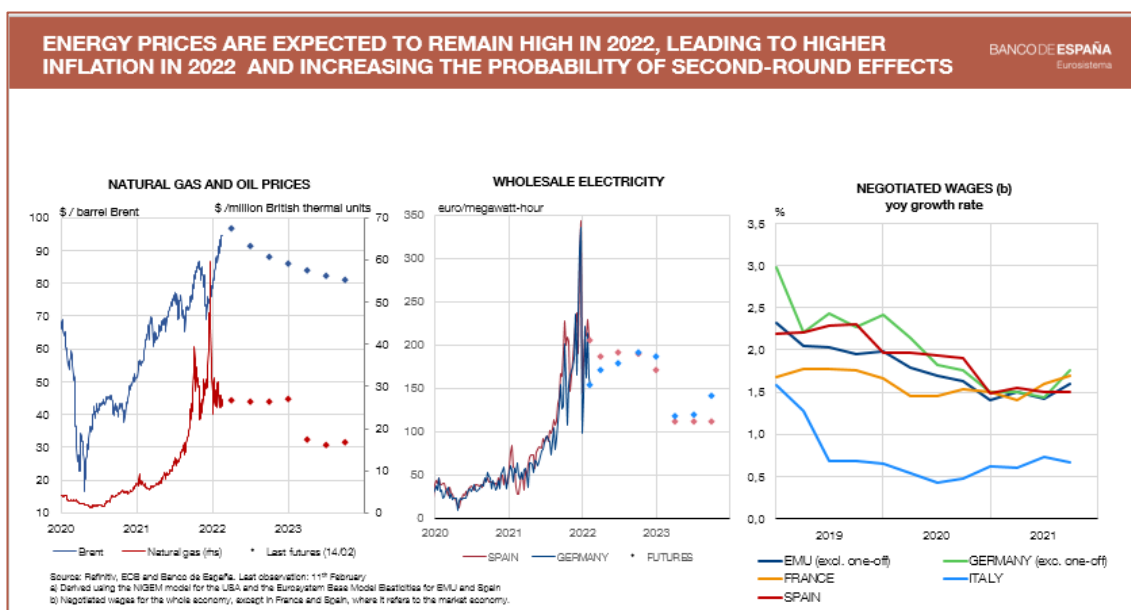
Let me start by characterising the recent inflation dynamics.



In a context in which the euro area economy is continuing to recover and the labour market is improving, headline inflation reached 5.1% in January, with core inflation at 2.3%. The surge in inflation is the result of a combination of factors. Prominent among these are the base effects stemming from the sharp drop in certain prices at the onset of the pandemic, supply bottlenecks, the steep rise in the prices of energy (especially electricity) and of other intermediate goods, and the impact of the recovery in demand on the price of some services.

An illustration of the importance of these factors can be obtained by comparing price levels before and after the pandemic. The headline HICP increased by 4.7% between December 2021 and December 2019, while the core HICP increased by only 2.9% in this two-year period. The level of energy and food prices at the end of 2021 was 17.2% and 4.6%, respectively, above that observed in December 2019, while services and non-energy industrial goods increased by 3.1% and 2.3%, respectively.

In any case, **inflation has surprised us consistently on the upside over the last few quarters, and also in the most recent months.** Moreover, these surprises do not relate exclusively to the energy and food components of the HICP, but have translated somewhat to core inflation as well.



In parallel, energy futures curves have been steeper throughout this year. And higher inflation in 2022 also increases the probability of second-round effects, in a setting of continued labour market improvements in the euro area. Indeed, the fact that inflation may remain above 2% for the rest of this year (albeit on a decelerating path), will place upward pressure not only on this year's wage negotiations, but also on those taking place next year. The existence of this backward-looking component in the wage-setting process is a stylized empirical fact and, as such, is included in some of our own forecasting tools. In a context in which an increasing number of companies are identifying labour shortages as a factor limiting their production, the probability of observing second-round effects on wages is also higher.

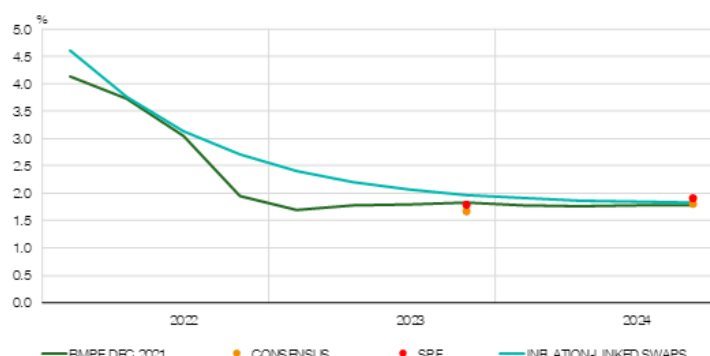
It's important to emphasize that avoiding this feedback process is in the hands of each country's economic agents. And were it to occur in one euro area country only, it would have an adverse impact on that country's competitiveness and, therefore, on its activity and employment. At the same time, one should take into account that, although widespread excessive wage increases would in the current context be counter-productive, increases consistent with the productivity growth and demand of each individual firm are clearly desirable. Indeed, balanced wage increases in line with these determinants would contribute to the lasting achievement of our medium-term inflation target and, also, to preventing the emergence of undesired second-round effects.

IN THE MEDIUM TERM, THE EXPECTATION THAT INFLATION WILL MODERATE IS MAINTAINED, BUT RISKS ARE ON THE UPSIDE, PARTICULARLY IN THE NEAR TERM

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- Most recent ECB projections, surveys and market-based indicators keep pointing to an inflation rate in line with the 2% target.
- In recent months the probability of inflation stabilising at around 2% in the medium term has increased.

EURO AREA INFLATION FORECASTS AND EXPECTATIONS



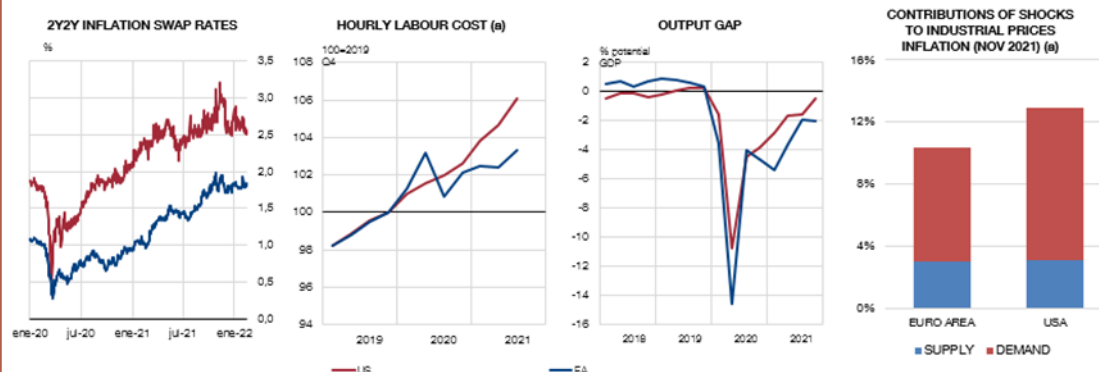
Source: ECB, Reuters, Consensus Economics

In the medium term, which is the relevant time frame for monetary policy, **the expectation that inflation will moderate is maintained**. Indeed, despite the evident short-run upward pressures on inflation, the most recent survey and market-based indicators keep pointing to a medium-term outlook for inflation rates in the euro area broadly in line with our 2% target. Wage growth also remains moderate. Against this backdrop, in recent months **the probability of inflation stabilising at around 2% in the medium term has clearly increased** but there is no perceived risk of it remaining persistently above that level at this stage.

In any event, the outlook for inflation is admittedly highly uncertain. Geopolitical tensions could lead to further increases in energy prices, which could feed back into wage rises and an inflationary spiral. Other matters, such as the resolution of supply bottlenecks, are also subject to great uncertainty. All in all, **the risks to inflation are on the upside, particularly in the near term**.

US VS EURO AREA INFLATIONARY PRESSURES

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Source: Datastream, Eurostat, BLS, CBO and ECB. Last observation: inflation swaps 14th February; labour cost, 2021 Q3; Output gap, 2021 Q3 (EA) and 2021 Q4 (US).
a) Shocks identified through the use of signa restrictions in a bivariate VAR including Manufacturing industrial production and prices. The identification strategy assumes that demand shocks move production and prices in the same direction, while supply shocks move them in opposite directions.

I would also like to stress that the economic situation in the United States is different from that in the euro area.

First, as I said before, medium-term inflation expectations in the euro area remain anchored at around our 2% target level, while in the United States these expectations lie significantly above 2%. US inflation numbers have also been higher. In January the consumer price index (CPI) increased year on year by 7.5% in the US. In the euro area, the HICP rose by 5.1%.

Second, it should be noted that, while in the euro area both GDP and private consumption are still far from their pre-pandemic trends, in the United States these measures of broad economic activity have fully recovered, partly as a consequence of the more forceful fiscal policy response in this country to the COVID-19 crisis.

Third, while a significant part of the current inflationary pressures in the euro area is driven by exogenous and external factors, such as energy prices (to which the euro area economy is particularly sensitive), in the United States there are significant domestic pressures, especially in the form of extraordinary wage growth, which contrasts with the relatively subdued dynamics seen in euro area wages so far. As an illustration, core inflation stood at 2.3% in January in the euro area, compared to 6% in the US.

Fourth, a rather significant part of the current high-inflation episode in the euro area can be interpreted as a negative shock to our terms of trade, given our high dependency on external sources of energy. This is very different to the situation in the United States and therefore its consequences are also expected to differ. In this regard, high inflation and subdued wage growth (like we have observed so far in the euro area) imply a substantial decline in real incomes, which could translate into lower consumption and investment, and, therefore, into weaker underlying inflation dynamics beyond the immediate short term. Even though part of these negative effects have been mitigated so far by fiscal policy in many countries – where measures have concentrated on compensating, at least partially, low income households for the higher energy prices – looking ahead it is unclear how persistent this policy support may be.

IMPLICATIONS FOR MONETARY POLICY		BANCO DE ESPAÑA Eurosystem
Flexibility and optionality	<ul style="list-style-type: none">Given the high degree of uncertainty, now more than ever, we must maintain optionality and flexibility.We stand ready to adjust all of its instruments, as appropriate, to ensure that inflation stabilizes at its 2% target over the medium term.	
Forward Guidance	<ul style="list-style-type: none">FG remains the anchor for monetary policy: a first interest rate hike requires three conditions to be met.Sequencing: we will not raise interest rates until net purchases under APP have come to an end.	
Gradualism	<ul style="list-style-type: none">We cannot discard the possibility that all the conditions in our FG are met sooner than we had expected some months ago.We will have to decide how to exercise our optionality. And on this how, the key word should be gradualism.	

3.2 Implications for monetary policy

Now that I have characterised recent inflation dynamics and the risks surrounding future price developments, let me draw some conclusions on how monetary policy in the euro area should respond, which are fully embedded in the ECB's new monetary policy strategy.

First, in this setting of heightened uncertainty, we have underlined the need to maintain **optionality and flexibility** and to remain attentive to the incoming data and forecasts in order to correctly adjust our monetary policy stance. As we have stated on numerous occasions, the ECB stands ready to act at any time and to adjust all of its instruments as deemed appropriate. But, I insist, the near term is plagued with uncertainty, in terms of pure inflation dynamics but also in relation to several geopolitical risks which could potentially be highly disruptive. That is why, now more than ever, we must maintain optionality and flexibility.

Second, **forward guidance remains the anchor for monetary policy**. As I explained before, for our first interest rate hike to be implemented, all three of the well-known conditions need to be met. Another crucial element of this forward guidance is **the sequencing** of the exit strategy, whereby we will not raise interest rates until net purchases under our asset purchase programme have come to an end.

Third, given what I have just said regarding inflation prospects, we cannot rule out the possibility that all the conditions in our forward guidance will be met sooner than we had expected some months ago. And as a result, movements in our monetary policy towards normalization seem more likely. In the coming months, we will have to decide how to exercise our optionality. And as far as this *how* is concerned, the key word should be, in my view, **gradualism**. In other words, I see **no reason to overreact**. This view is based on several considerations.

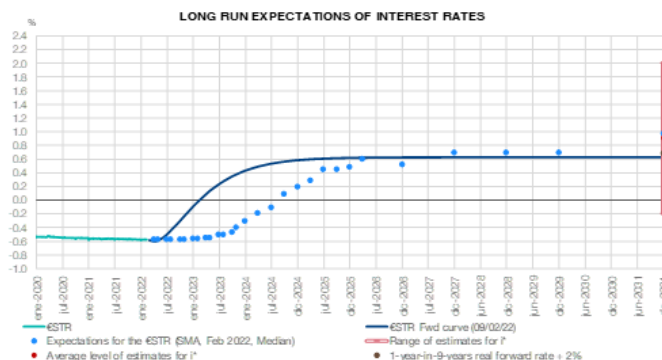
We first have to take into account that the length of the medium term, which is the time horizon of our monetary policy orientation, is dependent on the state of the economy and the nature of the shocks hitting it. When demand shocks prevail, the medium-term horizon is shorter and closer to the standard transmission lag of around two years. When supply shocks prevail, and there are no serious risks that inflation expectations might be contaminated by the effect that these shocks usually have on actual inflation, the medium-term horizon tends to be longer, because of the resulting trade-off between inflation and economic activity.

Thus, in a context in which inflation expectations remain anchored at around our 2% symmetric target, the economy is confronted with an exogenous price shock, and there is still some economic slack, a premature tightening of monetary policy would only add to the negative consequences of that shock for demand and, therefore, for medium-term inflation. Moreover, in a highly uncertain scenario, including geopolitical tensions in Ukraine, the ECB should not constitute an additional source of uncertainty, but should rather maintain a clear, gradual and predictable path for its policy.

GRADUALISM IS ALSO JUSTIFIED BY THE VERY LOW LEVEL OF THE NATURAL INTEREST RATE

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- The natural interest rate should serve as an anchor as to the level around which our policy rates might stabilize in the longer run.
- Financial markets also expect a very low terminal level for policy rates in the next rate cycle.



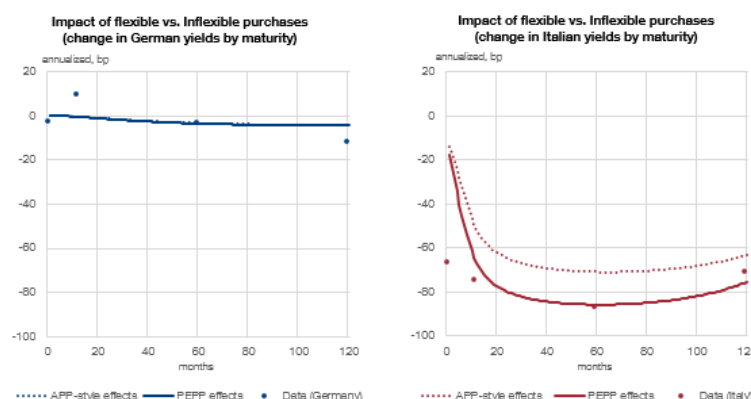
Source: Refinitiv Datastream, Banco de España and Survey of Monetary Analysts (SMA), December 2021.
Note: The long-run definition in the SMA questionnaire refers to "the horizon over which the effects of all shocks will vanish. For the purposes of this survey this can be interpreted, for the sake of simplicity, as around ten years". The red range spans long-run interest rates resulting from the Fisher Equation (long-run) $i = r + \pi$ (2%, ECB inflation target). The interval of estimates for the natural rate (r^*) for 2019 Q3, previously shown, account for a wide range of models summarized at the WGBM Report "The natural rate of interest: estimates, drivers, and challenges to monetary policy". ECB OP, No 217; Ayikidis (2018); Brand, Gey, Lemke (2020); Brand, Mazzi (2018); Fiorentini, Galesi, Pérez-Quirós, Santana (2018); Geyer and Schnupp (2018); Hazton, Leubach, Williams (2017); Jorda (2017); Johansson and Mariani (forthcoming). The 1-year-in-9-years real forward rate is constructed by subtracting the 1-year-in-9-years US forward rate from the implied nominal 1-year-in-9-years 6STR forward rate.

This gradualism is also justified by the fact that our estimates of the natural interest rate in the euro area remain very low, which should serve as an anchor as to the level around which our policy rates might stabilise in the longer run. Indeed, the nominal interest rate that markets appear to consider the terminal level for our rate cycle is extremely low. And, according to optimal monetary policy theory, the lower the terminal rate the longer one should spend at the lower bound and the more gradual should be the rise towards the terminal rate after lift-off.

FLEXIBILITY SHOULD BE FOCUSED ON ENSURING MONETARY POLICY IS APPROPRIATELY TRANSMITTED ACROSS THE EURO AREA

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- In December 2021, we decided to keep this flexibility in the PEPP reinvestment phase, which was extended until the end of 2024.
- We should now use this flexibility proactively and monitor whether it is sufficient.



Source: Costain, Nuffo, and Thomas (2021), "The term structure of interest rates in a heterogeneous monetary union", Banco de España, forthcoming.

Finally, an important dimension of flexibility in our monetary policy that we should not overlook is the focus on **avoiding financial fragmentation** in the euro area, in particular when the impact of the pandemic has been and remains very heterogeneous across countries and sectors. In December last year, we decided to retain this flexibility in the PEPP reinvestment phase, which was extended until the end of 2024. We should now use this

flexibility proactively and monitor whether it is sufficient to ensure our monetary policy is appropriately transmitted across the euro area.

4 Conclusions

Let me conclude. I am convinced that the ECB's new monetary policy strategy, which I have briefly sketched in this talk, constitutes a solid basis for the conduct of our monetary policy. This is so, not just looking ahead to the coming decades, but also for coping with the current high-inflation episode. In this respect, I believe that, in a highly uncertain environment, a careful assessment of the implications that current developments have on medium-term inflation expectations is key, and that the optionality and flexibility that we retain should be exercised gradually and predictably. **The direction in which we need to head is clear, but we should not draw premature conclusions as to the time frame. The process will be both gradual and data-dependent.**

Thank you for your attention.

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