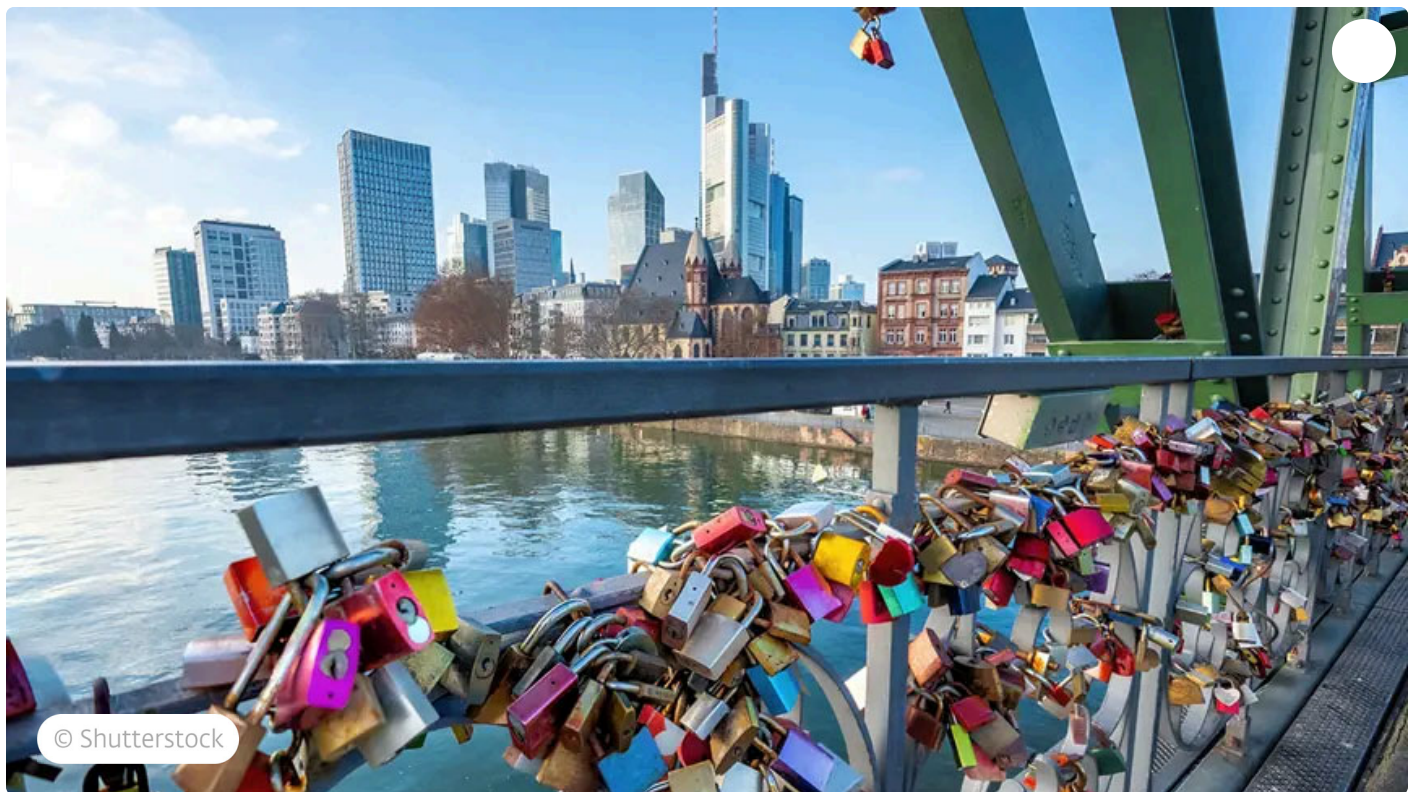


SPEECH

From Frankfurt with love: 14 years on the ECB's Governing Council

Read aloud

In the first Klaas Knot Lecture on international economic policy, initiated by the University of Groningen, Klaas Knot said 'we should aim to design our policy choices in such a way that they are robust across different outcomes, rather than focusing on only one scenario'. He spoke about his experiences during his 14 years as member of the ECB's Governing Council, and about monetary policy under fundamental uncertainty.



Thank you Harry, for your kind introduction. I feel both honoured and humbled to give the inaugural lecture in this series that bears my name. To be frank, it also feels a bit awkward. Usually, you have to be retired or dead, or both, for such an honour. But I can assure you that neither option appeals to me at present. I rather see this as an excellent opportunity to share with you some reflections on almost 14 years of monetary policy making as a member of the ECB's Governing Council.

What is the job of a central banker? In essence, the job of a central banker is to maintain price stability by responding to different kinds of shocks. And looking back on 14 years as a member of the Governing Council, we have experienced quite a few shocks. Over time, these have affected both the demand side and the supply side of the euro area economy. Some shocks were abrupt and transitory, while others were almost permanent.

Of course, when making policy decisions, we do not have the benefit of hindsight. Like so many policy makers, central banks need to act in real-time, often with imperfect information. One of the challenges facing central banks is therefore: how should we deal with uncertainty? By assigning probabilities to certain economic outcomes, our models can - to some extent - deal with *risk*. But sometimes the probability that a certain event will occur is simply unknown. And some events are even completely unforeseen. In these situations we speak of fundamental – or Knightian – uncertainty (see Knight, F.H. (1921) "Risk, Uncertainty, and Profit"). When I took office, I could not imagine that we would be confronted with a major pandemic and war on the European continent. Nor do we know whether we'll face another pandemic, and what it might look like. It is fundamentally uncertain, and impossible to model.

Over the years, I've learned that, for a central banker, this implies at least two things. First of all, we should aim to design our policy choices in such a way that they are robust across different outcomes, rather than focusing on only one scenario. This means we need to consider various possible scenarios, and also think about what the outcome would be in the worst case scenario. Secondly, when our economic environment changes in a direction that was not foreseen, we need to be ready to change course swiftly. Like many professions, being a central banker requires one to "learn on the job".

When I look back on the past 14 years, the importance of these lessons is best illustrated by two different cases, both of which required the ECB to navigate uncharted and often choppy waters. The first is the flaws in the initial design of the Economic and Monetary Union, and the challenges this meant for our common currency. The second is the fight against inflation away from target. We have witnessed both ends of the spectrum: inflation persistently below target, followed by a sudden spike to record levels. I will share my experiences in a more or less chronological fashion.

Institutional design of the EMU

Let me start with the design of our monetary union, the euro area. When the euro was introduced in 1999, the idea was relatively simple. We first froze exchange rates among euro area countries, then made this irrevocable by introducing a single currency. There would be a single central bank, the ECB, to safeguard its value. For maximum credibility, the ECB was modelled on the tradition of the Bundesbank, with a strong and independent mandate focusing solely on price stability. The existence of convergence criteria, which countries needed to meet in order to join, would ensure that differences in terms of for example inflation and fiscal positions were not too large.

Member states would maintain autonomy over fiscal policy, limited only by the 3% and 60% thresholds for deficit and debt levels, as laid down in the Stability and Growth Pact. These thresholds would ensure fiscal sustainability and prevent undue inflation pressures stemming from expansionary fiscal policy. Further coordination of fiscal policies was deemed unnecessary.

An independent central bank, together with a limit on debt and deficit levels, were thought to be enough to maintain both price stability and financial stability. If somehow a country would run into fiscal trouble, the no bail-out clause and the prohibition of monetary financing would ensure that the problem would remain a local one. Certainly, providing mutual support was not the intended solution.

In its first decade, the EMU appeared to perform well. Growth was solid, with poorer member states growing even faster than the rich ones. This contributed to a seeming convergence

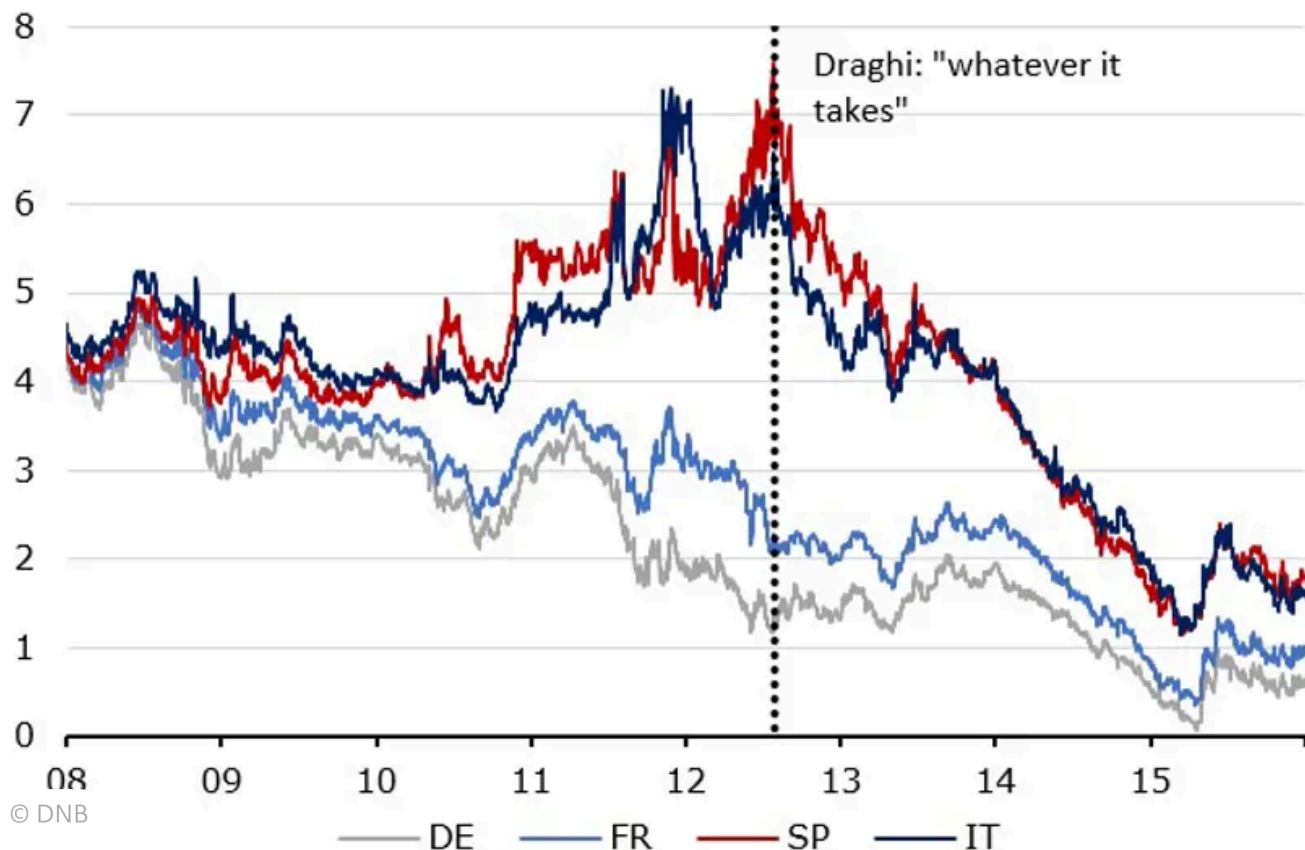
among member states. Interest rates also rapidly converged. All euro area countries were considered safe borrowers, and sovereign spreads virtually disappeared. And everybody lived happily ever after, or so it seemed.

But things changed drastically with the outbreak of the global financial crisis. It soon became clear that Greek public finances had become unsustainable. But the problem was not a local one. While public finances in other euro area countries had looked more or less fine before the crisis, private debts had increased rapidly, and there was an unhealthy embrace between the financial sector and governments. As the crisis progressed, private debts often turned into public ones. And yields started spiking in many countries simultaneously, with contagion across members states starting to play a role too.

In this situation, the EMU's original architecture did not prove to be of much help. It soon turned out that maintaining financial stability during a severe crisis was not possible without some degree of mutual support. This ultimately resulted in the establishment of the European Stability Mechanism. On my first day in office, three euro area countries were in a financial support programme with two more to follow. These programmes kept the euro area running. But they could not turn the tide, given that their size was inherently limited. In fact, the future of the euro itself was put up for discussion by some. When all member states are financially constrained, financial solidarity between member states was not enough.

Sovereign bond yields

10 year, percent



A pivotal moment was the declaration by Mario Draghi that the ECB “is ready to do whatever it takes to preserve the euro”. This was followed by the announcement of the Outright Monetary Transactions, or OMT, program. OMT allows the ECB to directly intervene in sovereign bond markets, subject to strict conditions. As you can see in the chart, Draghi’s words and the OMT announcement had an immediate calming effect on markets.

John Maynard Keynes already recognised in his *General Theory* – and I paraphrase – that “most of our decisions are taken as a result of animal spirits, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities”. This is especially true for financial markets, where these “animal spirits” can lay low for a long time, before suddenly erupting. Another case of Knightian uncertainty. The experience with OMT underlines the importance of instilling confidence, “taming the beast”, which the ECB can do by acting as a ‘buyer of last resort’.

When the Governing Council decided on OMT, I was fully in favour of this measure. It was a quantum leap, as the ECB promised to – if needed - engage in potentially unlimited asset purchases. In a different situation, that would not have been the policy of my preference. But it was clear that a gamechanger was needed, and Mario Draghi offered it. I must admit that also I did not expect that Draghi’s words would be so powerful. The confidence effect of OMT was in fact so strong that the instrument itself has never been put to use. The fact that it became part of our toolbox was enough to avoid a self-fulfilling prophecy. In hindsight, you

can say that the OMT proved a turning point. After that, the sovereign debt crisis was not yet over, but the survival of the euro itself was no longer in question.

Clearly, post-OMT, we didn't suddenly fix all of the EMU's flaws. We've learned that a monetary union of heterogeneous member states is a complex undertaking. Crafting a flawless blueprint, robust to all possible shocks, is highly unlikely, especially taking into account the complex political realities of European integration.

But more importantly: as the crisis unfolded, policy makers showed a willingness to act. The ESM and the OMT, together with the banking union, have become important building blocks of a more financially robust monetary union.

The fight against inflation away from target

Let me now turn to the second reality that has characterised my past 14 years as a member of the Governing Council, which is the fight against inflation away from target, both above and below. As you know, inflation remained persistently below target for much of the past 14 years, before more recently surging to high levels. I'll share some of the lessons I take from these periods, starting with the low inflation environment.

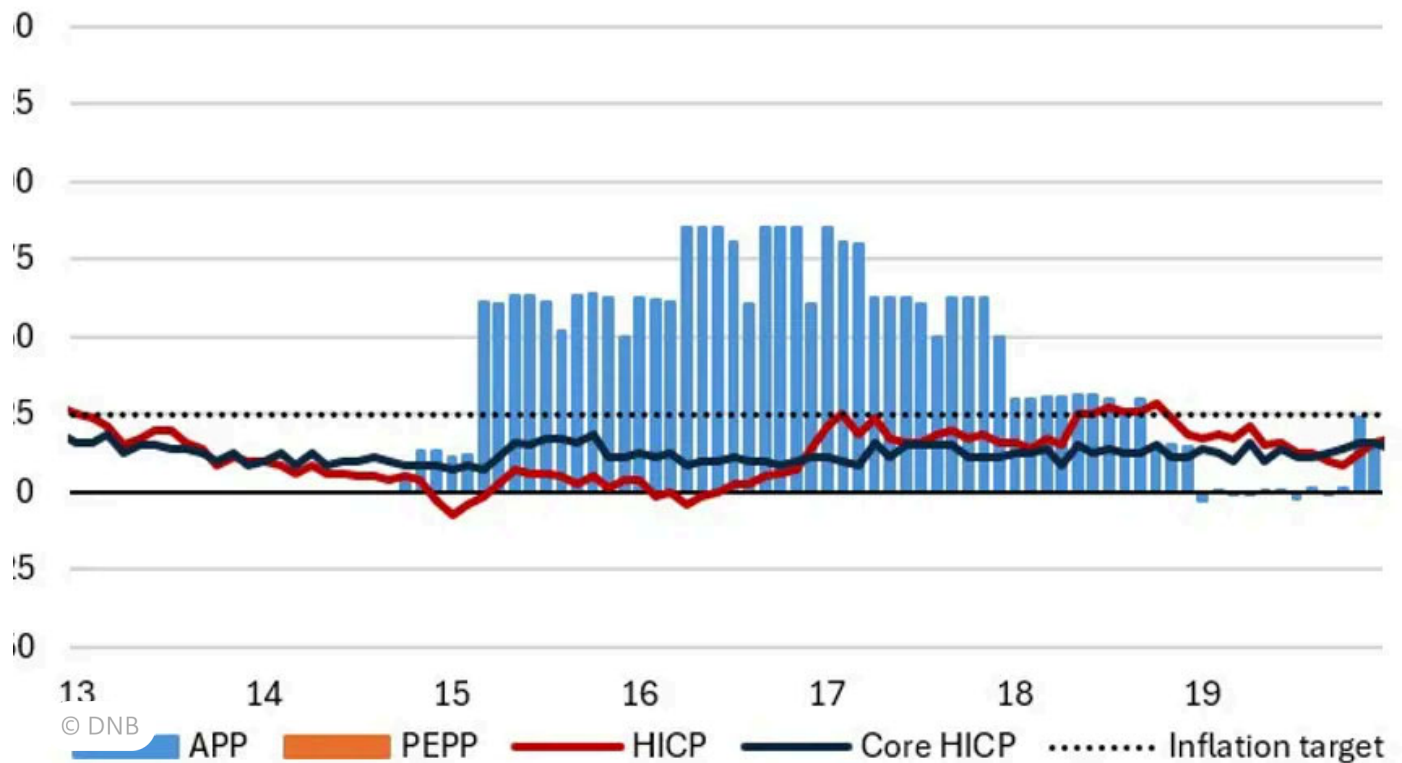
Perhaps counterintuitively, overly low inflation hurts households, businesses and governments in the euro area, just as too high inflation can be dangerous. It makes debt harder to manage, complicates price and wage changes, and reduces chances for new businesses to grow. Moreover, a persistent undershooting of the inflation target poses a risk for central bank credibility if it results in a de-anchoring of inflation expectations. If people do not believe the central bank can achieve its target, this may actually undermine the central bank's ability to do so.

As the sovereign debt crisis gradually subsided, but the economy remained weak and inflation continued to fall, the ECB was confronted with the so-called effective lower bound. This is the inconvenient reality that policy interest rates cannot be lowered much below zero. Therefore, the ECB needed other, unconventional tools to reach its target. These included forward guidance, negative interest rates, longer-term lending operations to banks, and of course most notably, asset purchases, or quantitative easing.

In 2015 the Governing Council launched its asset purchase programme, or APP. The aim was to make our monetary policy more accommodative, beyond what could be achieved by the conventional response of lowering short-term policy interest rates. The idea is that asset purchases suppress term premia and, hence, longer-term interest rates, thereby reducing financing costs for households and firms and boosting economic activity.

ECB asset purchases and HICP inflation

Net monthly purchases (billions of Euro, lhs) and inflation rate (% , rhs)



However, in the subsequent years, after an initial pick-up, we saw that inflation stubbornly remained below target, despite prolonged asset purchases and an economy that was recovering slowly but steadily. This becomes especially clear when you look at core inflation, which excludes volatile components like food and energy prices. I believe that Quantitative Easing, or QE, *can* play an important role in staving off deflation risk when the anchoring of inflation expectations can no longer be taken for granted (for an evaluation of the effectiveness of unconventional monetary policy instruments, including QE, see [Altavilla et al. \(2021\)](#) [↗](#)). In an environment with very low inflation, it can help push down long-term rates, when the policy rate cannot be lowered further. The use case for QE however fades when inflation gets closer to target. QE has not been very effective in fine-tuning inflation. At the same time, asset purchases come with potential side effects, such as inflated asset prices, misallocation of resources, and risks to the central bank balance sheet.

The fact that we cannot fully get around the effective lower bound implies that central banks are better equipped to fight high inflation than to push up inflation when it is too low. Once borrowing costs no longer form an impediment to spending decisions, further reductions in borrowing costs will not have much of an additional impact.

The question then is: what can we do to better deal with low inflation? To be honest, I don't have a fully satisfactory answer, but one possible direction is the role of fiscal policy. A large

strand of research shows that when monetary policy cannot be eased any further, fiscal policy can be especially effective at boosting growth and inflation.

Why is this? In normal times, fiscal stimulus leads to higher inflation, and in turn, higher interest rates. As a result, private spending is crowded out. But at the effective lower bound, this mechanism does not apply, at least not until inflation increases sufficiently for the central bank to raise its policy rate again. In fact, stimulus may lead to “crowding in” if expectations of moderately higher inflation lead to lower real interest rates (also see [Knot, K.H.W. \(2021\)](#)).

And when we talk about the interaction of monetary and fiscal policy, the institutional design of EMU again comes into play. Fiscal stimulus at the euro area level would require coordination between these 20 member states. But our monetary union was not designed for this.


During and after the euro crisis, member states mostly pursued fiscal consolidation, also to comply with the requirements of the EU fiscal rules. In fact, these rules had just been made more stringent. This was part of the “package deal” that enabled agreement on financial solidarity. Financial solidarity comes with the risk of moral hazard attached, and stricter rules help alleviate this risk.

As a result, the focus of individual member states was to get their Own House In Order, conveniently abbreviated as OHIO. And at the level of the individual member state this is understandable, in some situations even necessary. However, the result of these individual fiscal policy choices was a substantial fiscal tightening at the aggregated euro area level, during a time when monetary policy was trying to provide a boost to our feeble economies. This was not an ideal policy mix. So, as important as OHIO is, we should have paid a little bit more attention to UTAH, which is to say that Underspensing Together Always Hurts.

OK, so let's pause here for a moment. So far, we have seen that instilling confidence in times of crisis can be really powerful, if backed up by a credible policy commitment. A big bazooka if you will. The EMU did not have a big bazooka initially, but that was fixed during the euro debt crisis. We have also seen that in times of very low inflation, fiscal policy can be a more effective instrument than monetary policy to push inflation up. However, for that to work we need to make sure that countries have enough fiscal space to be able to stabilise the economy, without raising concerns about debt sustainability. Moreover, we need some degree of coordination between monetary and fiscal policy. That is always difficult, but in the EMU, with 20 sovereign governments, it is nearly impossible.

Let's pick up the story-line. In the later post-crisis years, the euro area economy gradually picked-up steam, and while inflation remained below target, we were in a relatively good place.

This of course all changed when the COVID pandemic hit. We were faced with an unprecedented crisis. Not only in terms of economic impact, but also in terms of uncertainty. The virus was spreading rapidly, and economies shut down due to strict containment measures. Financial markets were stressed, and increases in sovereign spreads made it difficult for governments to provide support measures. Decisive action from governments and central banks was needed within weeks, if not days. At the time, there was no telling how long the pandemic would last and how deep it would hit our economies. In other words: fundamental, or Knightian, uncertainty. One of those moments where our models and forecasts were not very useful, at least initially.

From the ECB's side, the three main tasks were to stabilise financial markets, protect the supply of credit to the real economy, and counter the negative impact on inflation (also see [Lane, P.R. \(2020\)](#) ). We, as the Governing Council, very quickly announced what we thought was a comprehensive policy package, including an expansion of our asset purchases by 120 billion. In the world of our models, our reaction was quick and quite substantial. However, amid an emerging pandemic, it was not received as such, and doubts whether it would be enough quickly appeared.

We therefore decided to reconvene, online, within a week. Doing more would require us to let go of certain safeguards in our purchase programme that were dear to me. I went back and forth, discussing with my staff and discussing with my colleagues in Frankfurt. Could, and should, we go even further? In that virtual meeting, we decided that, given the circumstances, indeed we should go in big, and we announced a steep increase in asset purchases with our Pandemic Emergency Purchase Programme, or PEPP.

As you can see, over the years we have enriched the English language with a lot of new acronyms. The programme managed to address the risks to the transmission of monetary policy. For example, the PEPP countered a rise in sovereign bond yields and thereby averted a tightening of financing conditions for households, corporates and banks during the pandemic. Just like Draghi's words in 2012, it had an immediate calming effect on markets. But it also, and this was its second purpose, eased our monetary policy stance during a phase when inflation risks were tilted to the downside.

And where fiscal and monetary policy were not aligned in the years prior, at the start of the pandemic they were pulling in the same direction. First of all, the general escape clause of the Stability and Growth Pact was activated. This enabled governments to take the necessary support measures at the national level. Second, governments decided on the NextGenerationEU programme at the European level. NextGenerationEU provided a much needed confidence booster, as well as an incentive for investments and structural reforms.

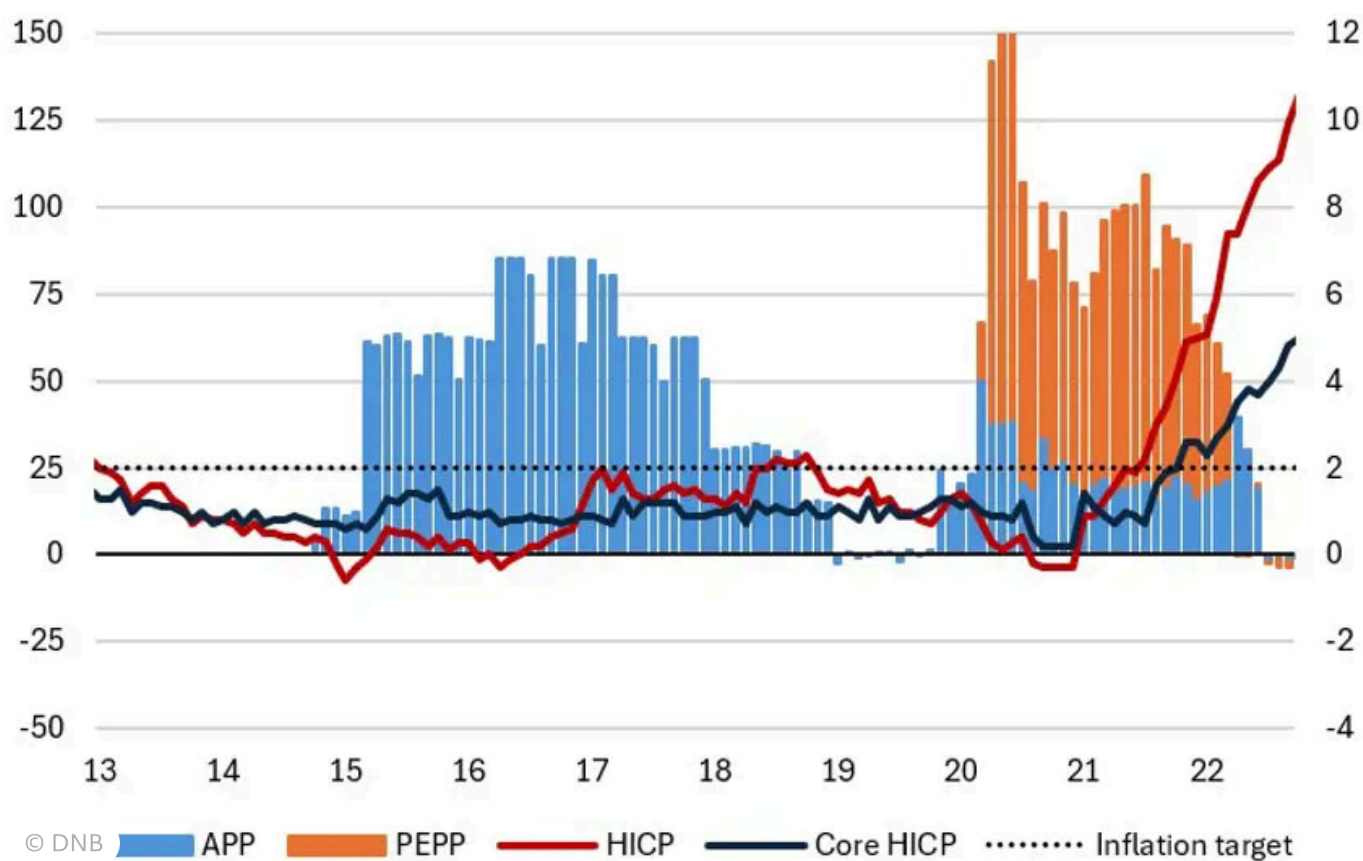
The European policy response during the initial phase of the pandemic highlights the importance of building sufficient fiscal space – achieved through consolidation during

economic good times – to ensure the economy can be stabilised in times of crisis. The good news is that the new European fiscal framework provides more room for automatic stabilisation. Its success will depend on the actual compliance with and enforcement of the rules: will governments really reduce their debt during upturns? In this regard, the new EU fiscal framework will immediately be tested.

Moreover, the European policy mix during the first phase of the pandemic shows that when different authorities work together, the EMU can successfully absorb a large and uneven downward shock. The ECB continued its asset purchases until March of 2022. As you can see in the chart, purchases still continued when inflation had already started to climb.

ECB asset purchases and HICP inflation

Net monthly purchases (billions of Euro, lhs) and inflation rate (% , rhs)



In retrospect, it's fair to say that the end of net purchases came quite late. While we observed inflation increasing to above target in the course of 2021, at the time we underestimated the strength of the recovery. Perhaps we, as well as governments, remained in "crisis mode" for a bit too long. But it should also be acknowledged that in this phase, many countries still had lockdown-type measures in place. Although the roll-out of vaccinations provided light at the end of the tunnel, we were not sure how soon we would definitively be leaving the pandemic behind us. This is another good example of decision-making under Knightian uncertainty.

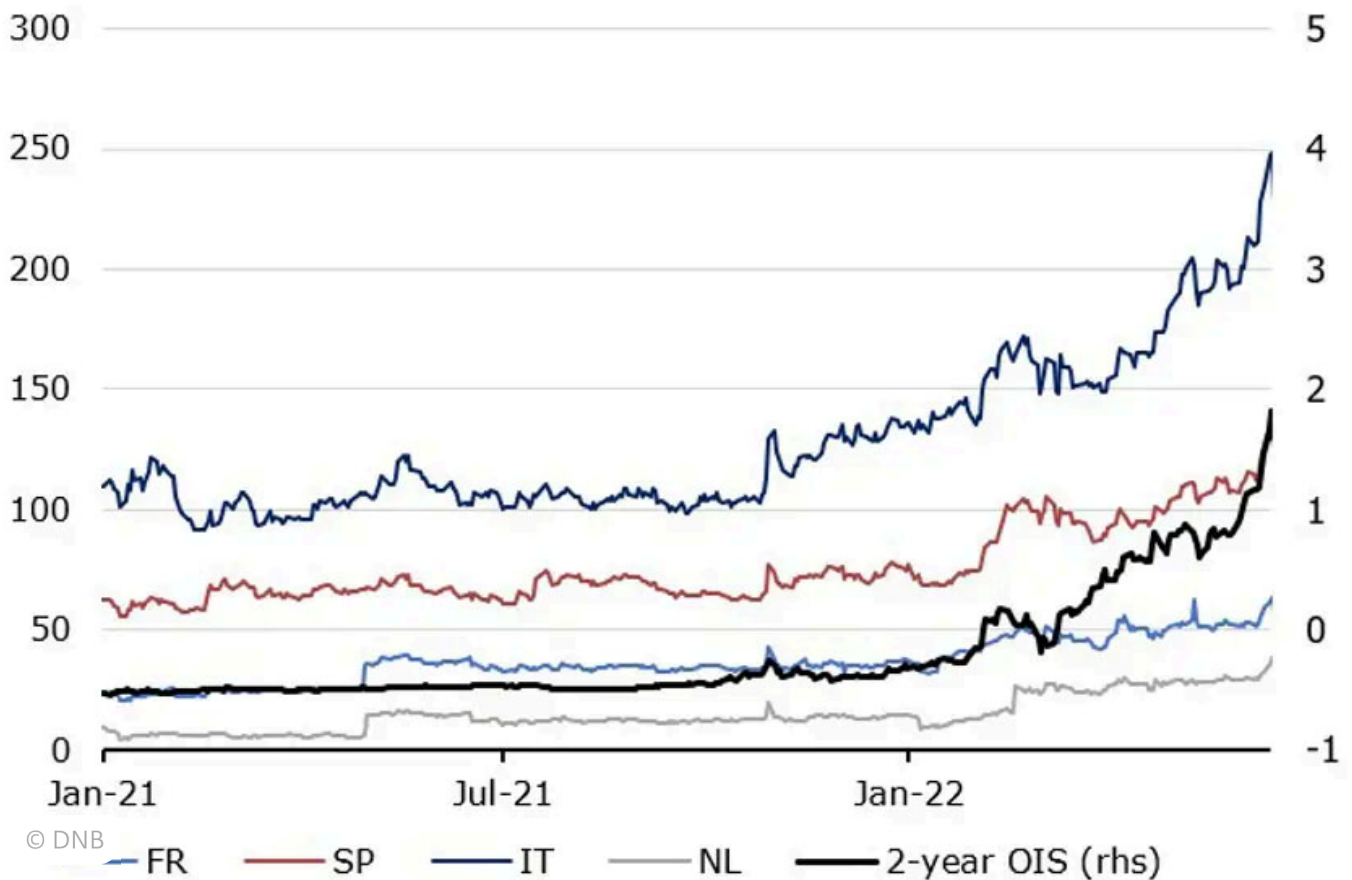
Things clearly don't always go as planned, and with the benefit of hindsight we should've put more weight on inflationary scenarios.

This brings me to the final episode, of inflation running above target. Well, in fact it did more than just run above target, it hit record high levels. Inflation initially increased as a result of strong demand in combination with supply chain constraints. But subsequently, Russia's barbaric war on Ukraine, which caused an energy price shock, added fuel to the fire. Inflation ran far too high, in the double digits. Central banks had to step firmly on the brakes (for an overview of the causes of the inflation surge and the role of monetary policy, see [DNB analysis \(2024\) ↓](#)).

While markets understood that we had to be firm to fight inflation, the prospect of substantial interest rate hikes also led to concerns about the sustainability of high-debt countries.

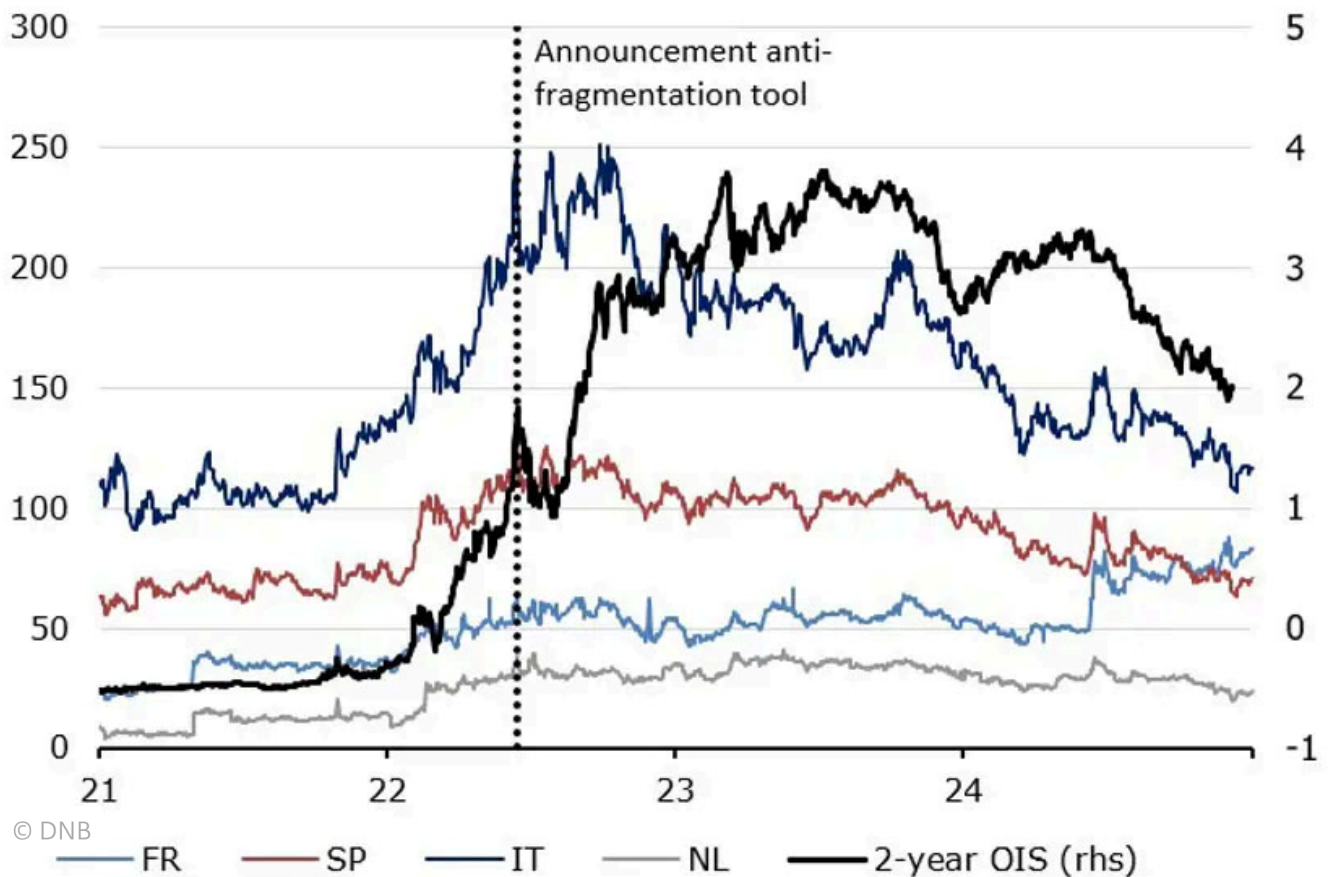
You can see this in the chart. The two-year overnight indexed swap rate or OIS, which is a risk-free rate, is a reflection of market expectations of our policy rate in the short to medium term. Once these rate expectations started to climb in the beginning of 2022, spreads went up in tandem. This accelerated in June after the Governing Council signalled that the first rate hike would come at the next meeting. While it is natural for spreads of more risky assets to increase when interest rates go up, this response can also be stronger than warranted by underlying fundamentals. And in a monetary union without a single safe asset, this can pose a risk to an even transmission of monetary policy.

Two-year OIS rate and spreads on 10-year government bonds



In response, we could have done two things. Take the reaction of spreads into account and slow our rate hikes, which would have resulted in inflation staying above target for even longer, or address the transmission risks to allow for the required tightening response to inflation. We obviously decided for the latter, and announced yet another instrument, the Transmission Protection Instrument, or TPI, in July 2022. The TPI allows the Eurosystem to purchase sovereign bonds of countries that experience disorderly market dynamics not warranted by fundamentals. The ability to intervene was aimed at ensuring a smooth transmission of the monetary policy tightening cycle, consisting of both interest rate hikes and the reduction of our QE portfolio.

Two-year OIS rate and spreads on 10-year government bonds



This approach was successful. When we hiked rates at a historic pace during the Autumn of 2022, these were transmitted to member states evenly, without any further turbulence. As you can see in the chart, even when expectations of rate hikes continued to rise, spreads no longer increased.

This was another way the ECB showed strong commitment to pursuing its mandate by delivering tailored actions. In fact, the commitment to act was so clear that TPI, just like OMT, has never been used. The simple fact that it's there is enough to prevent these disorderly market dynamics, allowing us to focus on fighting inflation. At the same time, financial market responses to political events in several individual member states since then have shown that market discipline and incentives for sound fiscal policies have been preserved.

But TPI is also an example of learning as you go. While the OMT allowed us to intervene in cases where a member state was in an adjustment programme with the ESM, reflecting serious fiscal and structural challenges, we did not have a tool to act in cases where market dynamics were not warranted by fundamentals. With TPI, we filled this gap.

If I were to zoom out, this point about the importance of commitment and credibility in achieving the inflation target is also illustrated by the fact that the current disinflation process is proceeding relatively painlessly— without a major economic downturn or any meaningful rise in unemployment. This is in stark contrast to the Great Inflation of the 1970s, when price rises reached similarly high levels. Back then, central banks needed to take a much more

forceful approach to ultimately bring inflation back down, forcing a hard landing for the economy. I think the difference here is the result of decades of building central bank credibility and anchoring expectations. An accomplishment that should not be underestimated.

The credibility that has been built up and the anchoring of inflation expectations have also allowed the Governing Council to take a more gradual approach to bringing inflation down. In a sense, it allowed to postpone reaching the target from the often prescribed medium-term of around two years to around four years now. This flexibility allowed for a 'soft landing', or a return to target without completely choking the euro area economy.

Now, what do these important episodes tell us about the appropriate monetary policy strategy for the ECB in the future? What does this mean for the application of unconventional monetary policy tools, for instance?

First of all, I don't think we can afford to do away with any of our tools, even if all of them have their own drawbacks. This is simply because we cannot exclude the possibility of circumstances in which we may need to employ them again. But when we do employ them, we should learn from previous experiences.

Let me give you an example. Regarding forward guidance, we saw that the commitment to maintain low interest rates for an extended period of time was initially very effective in suppressing medium- to longer-term interest rates, with limited costs. However, such commitments about future policy do come with risks if they are formulated too specifically and unconditionally. The more recent surge in inflation has taught us that when monetary policy needs to turn the ship quickly, such commitments about future policy can work against you. Does this mean that we should never employ forward guidance again? In my view it does not. There can still be many circumstances in which there is added value in clarifying the intentions of the central bank based on current information. However, going forward, in explaining our reaction function, we should emphasize that a changing environment can lead to a change in policy response.

And what about asset purchases? Again, asset purchases should also remain in the toolkit. They can play a key role in safeguarding monetary policy transmission by countering market instability and in reducing the risk of de-anchoring inflation expectations (see [Knot \(2024\)](#) for a discussion on the separation of tools for stance and transmission purposes). However, as with all our policies, we need to continue to weigh the balance of costs and benefits carefully and assess its proportionality. Especially when asset purchases are implemented on a large scale and for a prolonged period of time. My personal preference in such cases would be to employ QE *forcefully* when needed to avoid deflationary risks, but to *avoid* using it overly persistently, as I believe the balance of benefits and costs to shift over time.

Conclusion

And what has all this taught me about the job of a central banker? As I said, the last fourteen years have involved a lot of “learning on the job” for me. I have learned that dealing with uncertainty, and with an environment that can suddenly shift requires flexibility and humility, but above all perseverance and a transparent commitment to the goal. And I have learned that economic models have their limits. The economists among you have no doubt all been schooled in the New-Keynesian DSGE-models that have been in fashion for some time now. And that is a good thing, because models bring structure and discipline to your economic thinking. But you should never take their outcomes literally, especially in times of large unprecedented shocks. This not only applies to monetary policy, but also to other economic models. And it is also true beyond economics – take climate models, for example. That is why we need robust policies, policies that are robust to different outcomes, rather than optimal policies that only work in one specific scenario.

And on that note, I would like to stop here and give the floor to Sandra. And after that, I will be happy to answer your questions.

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