

Twenty Years of the ECB's monetary policy

Speech by Mario Draghi, President of the ECB, ECB Forum on Central Banking, Sintra, 18 June 2019

Central banks were often established in the past with the aim of bringing stability in the aftermath of historic episodes. The Bank of England was established during the sovereign debt crisis of 1690, when the government was unable to obtain funding in the market. The Federal Reserve was created after a series of panics that had rocked the US banking system in the late 19th and early 20th century.

The euro was introduced 20 years ago in response to repeated episodes of exchange-rate instability and the need to secure the Single Market against competitive devaluations. The ECB was established as the keystone of the new Economic and Monetary Union (EMU).

The first decade of the Monetary Union was characterised by calm macroeconomic conditions, with limited volatility and steady economic growth. The second decade, however, has seen profound shifts in the prevailing environment – including both financial and sovereign debt crises – and our monetary policy strategy has had to adapt with it.

I would like to discuss this morning why this evolution came about and how it was achieved – and what the past twenty years can tell us about the ECB's monetary policy in the future.

Monetary policy before the crisis

The ECB's mandate is given by the Treaty as price stability. In 1998, the Governing Council defined price stability as inflation within a range of 0-2% over the medium term, which constitutes the ECB's objective. Then, in 2003, the Governing Council clarified that, within this range, it would aim at a focal point of below, but close to, 2%, which remains our medium-term aim to this day. This was a formulation that differed from the standard inflation-targeting framework of the time, which was typically based around a point target for inflation. But there were sound reasons why this definition was put in place.

In common with central banks across the world, the ECB faced a macroeconomic environment before the crisis that was predominantly defined by low volatility and moderate shocks, with the distribution of shocks to inflation almost exclusively to the upside. In the euro area, HICP energy prices rose by 80% between January 1999 and September 2008. Under these conditions, establishing a strong reaction function against high inflation was seen as crucial to anchor inflation expectations. Emphasising an aim of “below, but close to, 2%” was seen to imply a stronger commitment than a standard inflation-targeting regime.

But monetary policy in the euro area also faced a special challenge. The ECB was a new central bank operating in a very heterogeneous monetary union, which created a particular imperative to establish inflation credibility. Establishing a commitment to controlling inflation was seen as critical to cement lower inflation expectations across the euro area – especially as moderate inflation was a relatively new phenomenon in several Member States.

Over the two decades up to 1999, inflation had averaged above 3% in 10 of the 12 original members. The decline in inflation in many countries in the run-up to EMU was in large part due to expectations of joining, as well as to a number of extraordinary actions taken by national authorities to meet the convergence criteria. From 1989-99, long-term inflation expectations had fallen from a range of between 2.5-4.5% in the four largest euro area economies to below 2% across the board. It was now the task of the new central

bank to lock in this moderate-inflation environment – and it did so successfully. Over the next decade, inflation expectations internalised the ECB's commitment to keep inflation down and remained below 2%.

But this process of building inflation credibility had **implications for the ECB's reaction function**. As a matter of accounting, stabilising headline inflation largely caused by its volatile components must mean that core inflation adjusts downwards. Rolling cross-correlations between energy inflation and core inflation show that an episode of high energy inflation between 1999 and 2007 was accompanied by a period of rapidly softening core inflation.^[1] As a result, between January 1999 and September 2008 headline inflation in the euro area averaged 2.35%, while core inflation averaged 1.7% and exceeded 2% less than 15% of the time.

Central banks in other advanced economies faced similar challenges and adopted similar strategies. But differences in mandates – and length of track records in fighting inflation – led to differences in how much energy price pass-through to headline inflation others were comfortable accommodating. For example, energy prices in the US CPI rose by 160% over the same period^[2] and headline inflation averaged 2.9%. The Federal Reserve reacted less to headline inflation, and core CPI inflation averaged 2.2%.^[3]

The upshot was that the euro area entered the crisis having succeeded in establishing its anti-inflation credentials, but with underlying inflation dynamics that were perhaps relatively weaker. This was not immediately apparent, as inflation stayed at fairly elevated levels for more than four years after the Lehman crash. Monetary policy responded decisively to the global financial crisis and disinflationary threats seemed to pass quickly.

But in hindsight it seems reasonable to conclude that **the inflation process was vulnerable to a shift in the environment** – which is what transpired from around mid-2012 onwards.

New challenges for monetary policy

At this point, headline inflation in the euro area began what was, in retrospect, a prolonged downward drift, and core inflation fell by almost a percentage point from mid-2012 to early 2014. There are **two factors** that help explain the switch to a disinflationary trend.

First, the **distribution of shocks to inflation moved strongly to the downside** and the amplitude of the shocks increased. Supply-side shocks gradually dissipated over the years following the Lehman crash and the sovereign debt crisis. Negative demand shocks, driven at different times by domestic demand and external demand, instead became the dominant source of macroeconomic fluctuations in the euro area. ECB analysis shows that negative demand shocks have weighed on euro-area inflation by more than 1 percentage point on average since the start of the crisis. In the previous ten years, their effect was neutral overall, with periods of both upward and downward pressure.^[4]

The second factor was a **change in the macroeconomic policy mix**. While in the first phase of the crisis fiscal and monetary policy had eased in tandem – with fiscal policy loosening by a total of about 3% of potential GDP between 2008 and 2010^[5] – thereafter the stance of monetary and fiscal policy decoupled. The euro area fiscal stance turned contractionary in response to the sovereign debt crisis, tightening by around 4 percentage points of potential GDP until 2013 – years the euro area was mostly in recession.

This stands in contrast to the United States, where fiscal policy eased more in the initial phase of the crisis, by about 6.5% of potential GDP in total over 2008-09, and then tightened by about 5.5% of potential GDP from 2011 to 2013 when the economic recovery was underway. The euro area was forced onto a different path by the need in some countries to re-establish fiscal credibility. But *on aggregate* the euro area did not have less fiscal space than the United States: public debt levels were similar in the two jurisdictions. The key difference was that fiscal stabilisation in the United States took place at the federal level, while the euro area lacked a central fiscal instrument to act counter-cyclically.

The policy mix is also relevant when it comes to **financial sector policies**. After the crisis, it was inevitable that banking sectors in advanced economies would have to deleverage, both to cover losses and to re-focus their business models. The United States ensured that this process happened quickly and early. Around 500 failing banks were resolved by the Federal Deposit Insurance Corporation, while struggling banks were stress-tested and recapitalised through the Troubled Assets Relief Program. Between 2008 and 2011, US banks improved their leverage ratio^[6] by 1.6 percentage points from 7.2 to 8.8%.

The response in the euro area was more sluggish. Despite being more levered than their US peers before the crisis, euro area banks improved their leverage ratio by just 0.9 percentage points, from 3.7 to 4.6%, and this was achieved more through shedding assets and less through raising capital.^[7] This in part reflected the fact that, due to the fiscal rules, public support for banks was concentrated in countries with fiscal space. Moreover, without a common resolution framework only around 50 banks were resolved in the euro area in this period.^[8] So a weak banking sector continued to drag on the euro area economy, which was especially pernicious given the importance of the banking lending channel for financing.

In sum, the ECB faced an environment where there was *both* an increasing need to counter demand shocks, *and* an increasing burden on monetary policy to do so. **Our strategy therefore had to adapt to these new circumstances in order to continue delivering our aim.**

Monetary policy responded first in the summer of 2012 by acting to defuse the sovereign debt crisis, which had evolved from a tail risk for inflation into a material threat to price stability. Announcing Outright Monetary Transactions (OMT) established our commitment to counter unwarranted redenomination risks in sovereign debt markets and acted as a powerful circuit breaker.

While OMT was never activated, the effect of its announcement was equivalent to that of a large-scale asset purchase programme: spreads in vulnerable countries fell on average by more than 400 basis points over the next two years. The macroeconomic impact of OMT was also analogous to other purchase programmes: ECB research finds that the GDP and price effects of OMT were broadly in line with those estimated for the QE that took place in the United States and the United Kingdom.^[9]

But the lingering effects of the sovereign debt crisis dented the capacity of this stimulus to counter the new disinflationary trend. The delayed bank deleveraging process in the euro area began to accelerate, with banks further shrinking their balance sheets and paying back central bank loans. Bank balance sheets declined by around 20 percentage points of GDP in 2013 alone and, at the end of 2013, credit growth to the private sector was contracting at a rate of 2.4% relative to a year earlier. On the demand side, risk appetite in the private sector collapsed, with investment subtracting 1.6 percentage points from GDP growth in 2012.

The ECB therefore reacted again in 2013 by cutting its main refinancing rate twice, from 0.75% to 0.25%, and by seizing the opportunity of the launch of European banking supervision. We carried out a comprehensive assessment of bank balance sheets, with the aim of steering the process of balance sheet repair towards a positive macroeconomic outcome. Banks strengthened their balance sheets by over €200 billion in advance of the outcome.^[10] That put the banking sector in a much stronger position to transmit our policy.

But at this point, the euro area economy was hit by a further downward shock to inflation in the form of a 60% collapse in oil prices in mid-2014, which pushed inflation into negative territory. With underlying inflation already weakening, inflation expectations began to be affected. As the scope for further interest rate cuts was now limited, it became increasingly clear that **our reaction function needed to evolve to address these new challenges.**

Indeed, since our policy framework had never been systematically tested by persistent disinflationary risks, the ECB had not yet had a chance to demonstrate its intolerance for inflation remaining below its aim for protracted periods of time.

At the same time, there appeared to be some uncertainty about which tools we would be able to deploy if the effective lower bound were reached. Unlike in other major economies, the ECB had not resorted to large-scale asset purchases during the global financial crisis and its aftermath. Some even questioned the legality of asset purchases in Europe and their effectiveness in our bank-based economy.

If these uncertainties were not removed, there was a material risk that falling inflation could become self-fulfilling: the public could begin expecting a smaller monetary policy response to future inflation undershoots, and revise their inflation expectations further downwards.

In other words, credibility now relied not just on perceptions of the ECB's commitment to our aim, but also on perceptions of our capability to fight low inflation. We responded to the situation in **three main ways.**

The ECB's policy response

The first was by **clarifying the symmetry of our aim**. While the quantitative definition of price stability was instrumental in establishing credibility in the first decade, its asymmetric formulation may have led to misperceptions in a low-inflation environment. Thus we made clear that our policy aim was fully symmetric,^[11] and it was symmetric around the level that we had established in 2003: below, but close to, 2%. It is achieving this aim over the medium term that steers our policy decisions.

In addition, we clarified that symmetry meant not only that we would not accept persistently low inflation, but also that there was no cap on inflation at 2%. As I emphasised on a number of occasions,^[12] our medium-term orientation implies that inflation can deviate from our aim in both directions, so long as the path of inflation converges back towards that focal point over the medium-term policy horizon.

The second part of our response was to **lay out the tools we would use to counteract downside inflation risks**, which began with a speech I gave in Amsterdam in April 2014 that described three contingencies and the instruments we would use to react to them. This established unambiguously that we had no taboos about resorting to unconventional measures.^[13] There was nothing institutionally or legally special about the euro area that prohibited monetary policy from adding accommodation once the lower bound was approached.

Third, as these various contingencies played out, **we operationalised our reaction function by launching a series of new instruments**. We broke through the zero bound by lowering our deposit rate into negative territory, launched our targeted longer-term refinancing operations (TLTROs) to provide incentives for banks to lend, and implemented a large-scale asset purchase programme (APP) of public and private securities. These measures were deliberately designed to work as a package and ease the stance through complementary channels, working both through banks and the wider matrix of capital markets.

The negative rate policy challenged market expectations that when rates reached zero they could only go up and not down, which helped skew the distribution of rate expectations and depress the short end of the risk-free curve – a key benchmark for the pricing of bank loans. Asset purchases in tandem compressed yields at the longer end of the curve, pushing down mortgage rates and, at the same time, making bank lending to firms more attractive in risk-adjusted terms. And bank-based transmission was amplified by the TLTROs, which lowered funding costs and increased competition among banks.

Over time, we also enhanced this framework with state- and date-based forward guidance^[14], allowing us to rotate the marginal tool for determining the policy stance from asset purchases to forward guidance as the economic outlook improved. Today, this forward guidance links our expectations on the path of future rates to the path of inflation towards our aim, leading to automatic easing if the convergence path towards 2% is delayed.

There is mounting evidence that these instruments have been effective.^[15] Negative rates have proven to be a very important tool in the euro area – and more so than they would have been in an economy like the United States. Indeed, the Federal Reserve eschewed negative rates in part due to concerns about their effects on the money market industry, which are key intermediaries in the US financial system. But this factor is less relevant in the euro area, since many money market funds have been operating as Variable Net Asset Value funds, and therefore are more flexible to extend duration to seek additional returns.

Furthermore, the euro area is a relatively open economy for its size, with total trade making up 51% of GDP,^[16] compared with 27% in the United States. This means that the impact of negative rates on inflation and financing conditions via the exchange rate is more powerful.

In short, faced with a new environment of downside risks and limited conventional policy space, the ECB showed that it had no shortage of tools available to respond. Unconventional measures proved suitable substitutes for conventional ones: using market prices to construct a so-called “shadow short rate”,^[17] the stimulus provided appears broadly in line with the recommendation of monetary policy rules as suggested by recent academic research.^[18]

Our capacity to react in this way was made possible by the flexibility embedded in our mandate – a flexibility that was confirmed by the recent ruling of the European Court of Justice. This not only affirmed that asset purchases are a legal instrument of monetary policy in the euro area, but emphasised the broad discretion of the ECB in using all our tools in a necessary and proportionate way to achieve our objective.

However, although we have seen the successful transmission of monetary policy to financing conditions, and from financing conditions to GDP and employment, the final legs of the transmission process to wages and inflation have been slower than we expected. Wage growth is now strengthening as slack in the labour market diminishes. But the pass-through from wages to prices remains weak. This may reflect structural changes, such as globalisation and digitalisation, which mostly have an impact at this point in the pricing chain. Lingered cyclical weakness can also delay wage-price pass-through as firms elect to squeeze margins rather than raise prices and risk losing market share.^[19]

Current challenges for monetary policy

In this environment, what matters is that monetary policy **remains committed to its objective and does not resign itself to too-low inflation**. And, as I emphasised at our last monetary policy meeting, we are committed, and are not resigned to having a low rate of inflation forever or even for now.

We have described the overall orientation of our monetary policy as being “**patient, persistent and prudent**”. *Patient*, because faced with repeated negative shocks we have had to extend the policy horizon. *Persistent*, because monetary policy will remain sufficiently accommodative to ensure the sustained convergence of inflation to our aim. And *prudent*, because we will pay close attention to underlying inflation dynamics and to risks and will adjust policy appropriately.

This orientation is expressed in our current policy framework, which allows us to adapt our forward guidance and react flexibly as the macroeconomic situation evolves. That was illustrated by the monetary policy decisions taken at our meeting earlier in June.

Looking forward, the risk outlook remains tilted to the downside, and indicators for the coming quarters point to lingering softness. The risks that have been prominent throughout the past year, in particular geopolitical factors, the rising threat of protectionism and vulnerabilities in emerging markets have not dissipated. The prolongation of risks has weighed on exports and in particular on manufacturing.

In the absence of improvement, such that the sustained return of inflation to our aim is threatened, additional stimulus will be required.

In our recent deliberations, the members of the Governing Council expressed their conviction in pursuing our aim of inflation close to 2% in a symmetric fashion. Just as our policy framework has evolved in the past to counter new challenges, so it can again. In the coming weeks, the Governing Council will deliberate how our instruments can be adapted commensurate to the severity of the risk to price stability.

We remain able to enhance our forward guidance by adjusting its bias and its conditionality to account for variations in the adjustment path of inflation.

This applies to all instruments of our monetary policy stance.

Further cuts in policy interest rates and mitigating measures to contain any side effects remain part of our tools.

And the APP still has considerable headroom. Moreover, the Treaty requires that our actions are both necessary and proportionate to fulfil our mandate and achieve our objective, which implies that the limits we establish on our tools are specific to the contingencies we face. If the crisis has shown anything, it is that we will use all the flexibility within our mandate to fulfil our mandate – and we will do so again to answer any challenges to price stability in the future.

All these options were raised and discussed at our last meeting.

What matters for our policy calibration is our medium-term policy aim: an inflation rate below, but close to, 2%. That aim is symmetric, which means that, if we are to deliver that value of inflation in the medium term, inflation has to be above that level at some time in the future.

But fiscal policy should play its role. Over the last 10 years, the burden of macroeconomic adjustment has fallen disproportionately on monetary policy. We have even seen instances where fiscal policy has been pro-cyclical and countered the monetary stimulus.

If the unbalanced macroeconomic policy-mix in the euro area in part explains the slide into disinflation, so a better policy mix can help bring it to a close. Monetary policy can always achieve its objective alone, but especially in Europe where public sectors are large, it can do so faster and with fewer side effects if fiscal policies are aligned with it.

Recreating fiscal space by raising potential output through reforms and public investment, and respecting the European fiscal framework will maintain investor confidence in countries with high public debt, low growth and low fiscal space. But as fiscal expansion in the other countries may have limited spillovers, national fiscal policies remain constrained. So work on a common fiscal stabilisation instrument of adequate size and design should proceed with broader scope and renewed determination.

Conclusion

Let me conclude.

The euro was introduced twenty years ago in order to insulate the Single Market from exchange-rate crises and competitive devaluations that would threaten the sustainability of open markets. It was also a political project that, relying on the success of the Single Market, would lead to the greater integration of its Member States.

On both counts, the vision of our forefathers has scored relatively well. Imagine where the Single Market would be today, after the global financial crisis and rising protectionism, had all countries in Europe been free to adjust their exchange rates. Instead, our economies integrated, converged and coped with the most severe challenge since the Great Depression. That leads me to four observations.

First, the integration of our economies and with it the convergence of our Member States has also greatly increased. Misalignments of real effective exchange rates between euro area countries are about a half those between advanced economies with flexible exchange-rates or countries linked by pegged exchange rates and they have fallen by around 20% in the second decade of EMU relative to the first.^[20]

Second, the dispersion of growth rates across euro area countries, having fallen considerably since 1999, is since 2014 comparable to the dispersion across US states. Third, this has been driven in large part by the deepening of European value chains, with EMU countries now significantly more integrated with each other than the United States or China are with the rest of the world.^[21] Most EMU countries export more with each other than with the US, China or Russia. Fourth, employment in the euro area has reached record highs and in all euro area countries but one stands above its 1999 level.

But the remaining institutional weaknesses of our monetary union cannot be ignored at the cost of seriously damaging what has been achieved. Logic would suggest that the more integrated our economies become, the faster should be the completion of banking union and capital markets union, and the faster the transition from a rules-based system for fiscal policies to an institution-based fiscal capacity.

The journey towards greater integration that our citizens and firms started twenty years ago has been long, far from finished, and with broad but uneven success. But overall, it has strengthened the conviction of our peoples that it is only through more Europe that the implications of this integration can be managed. For some, that trust may lie in a genuine faith in our common destiny, for others it comes from the appreciation of the greater prosperity so far achieved, for yet others that trust may be forced by the increased and unavoidable closeness of our countries. Be that as it may, that trust it is now the bedrock upon which our leaders can and will build the next steps of our EMU.

[1] Rostagno et al. (2019), forthcoming.

[2] The difference in growth in energy prices between the euro area and the United States can in large part be attributed to differences in tax rates, which are typically higher in the euro area. As such, the share of the final price paid by consumers accounted for by oil is much smaller in the euro area, and CPI energy prices are less affected in aggregate by movements in oil prices. That being said, the energy component has a higher weight in euro area HICP, so a 1 percentage point increase in CPI energy prices has a greater impact on headline inflation in the euro area than in the United States.

[3] The equivalent figure for core PCE inflation was 1.9%.

[4] Rostagno et al. (2019), op.cit.

[5] Measured as the change in the cyclically adjusted primary balance.

- [6] Leverage ratio calculated as Tier 1 capital/Total assets. Source: Consolidated Banking Data for euro area banks and FDIC data for US banks.
- [7] It should be noted that deleveraging was also more challenging in Europe than in the US, given the larger size of bank balance sheets relative to GDP and less developed market-based finance.
- [8] Sapir, A. and Wolff, G. (2013), "[The neglected side of banking union: reshaping Europe's financial system](#)", note presented at the informal ECOFIN on 14 September 2013, Vilnius.
- [9] Altavilla, C., Giannone, D. and Lenza, M. (2016), "The Financial and Macroeconomic Effects of the OMT Announcements", *International Journal of Central Banking*, 12(3): 29-57.
- [10] See [ECB's in-depth review shows banks need to take further action](#), Press release, 26 October 2014.
- [11] For example, in the February 2014 press conference, the ECB President responded to a question about the symmetry of the inflation objective on the downside by recalling that the central bank did not *"have a cool attitude at all with respect to the present level of inflation rates [...] these levels of inflation for a protracted period of time, are a risk on their own [...] so, we [still] have a symmetric attitude."*
- [12] For example, at the press conference in March 2016, the ECB President noted that *"our mandate is defined as reaching an inflation rate which is close to 2% but below 2% in the medium term, which means that we'll have to define the medium term in a way that, if the inflation rate was for a long time below 2%, it will be above 2% for some time. The key point is that the Governing Council is symmetric in the definition of the objective of price stability over the medium term."*
- [13] Draghi, M. (2014), "Monetary policy communication in turbulent times", Speech at the Conference De Nederlandsche Bank 200 years: Central banking in the next two decades, Amsterdam, 24 April.
- [14] Forward guidance on interest rates had first been introduced in 2013 but was enhanced in this period.
- [15] For a review of the evidence see Hammermann, F., Leonard, K., Nardelli, S. von Landesberger, J. (2019), "Taking stock of the Eurosystem's asset purchase programme after the end of net asset purchases", *ECB Economic Bulletin*, Issue 2 / 2019.
- [16] Measured as total extra-euro area trade in goods and services as a share of GDP.
- [17] See Krippner, L. (2015), *Term Structure Modeling at the Zero Lower Bound: A Practitioner's Guide*, Palgrave-Macmillan.
- [18] Hartmann, P. and Smets, F. (2018), "The first twenty years of the European Central Bank: monetary policy," *Working Paper Series*, No. 2219, European Central Bank, forthcoming in the *Brookings Papers on Economic Activity*.
- [19] Bobeica, E., Ciccarelli, M. and Vansteenkiste, I. (2019), "The link between labor cost and price inflation in the euro area," *Working Paper Series*, No. 2235, European Central Bank.
- [20] Fidora, M., Giordano, C. and Schmitz, M. (2017), "Real exchange rate misalignments in the euro area", *Working Paper Series*, No. 2108, ECB.
- [21] Imbs, J. and L. Pauwels (2019), "Twenty Years of Convergence", paper presented at ECB Forum on Central Banking, 17-19 June 2019.

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