

Twenty Years of ECB Monetary Policy

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The European Central Bank’s 20th anniversary last year and the euro’s 20th anniversary this year evoked in me a sense of duty to but also enthusiasm for sharing the experiences of my institution. I have participated in the European Monetary Institute’s preparations for the euro since 1997, helped building up parts of the ECB and experienced from the inside its whole lifetime so far. Tonight, I would like to discuss the ECB’s monetary policy experiences over the last 20 years, drawing from a joint paper with Frank Smets – who had also joined the ECB early – that should come out later this year in the Brookings Papers on Economic Activity.¹ Needless to say that any views I express are my own (or sometimes Frank’s or a mixture of the two) but not necessarily the official views of the ECB or the Eurosystem.

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1. Price stability

Let me start with a brief assessment of the achievement of our primary objective, which is price stability in the euro area. Similar to other G7 central banks, price stability is ranked lexicographically above other objectives, such as balanced economic growth. This is different from the Fed’s dual mandate. The ECB Governing Council quantified the inflation aim as an increase in the Harmonised Index of Consumer Prices for the euro area (HICP) of below, but close to 2 per cent over the medium term.

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Keeping all this in mind, the average HICP inflation rate between January 1999 and September 2018 was 1.7 per cent, as marked with the dashed blue line in the chart on the screen. At the end of our sample the inflation rate was 2 per cent – the solid blue line – and the most recent reading, the flash estimate for April 2019, 1.7 per cent. Moreover, survey-based 5-year ahead inflation expectations – the red line – remained within a narrow corridor of 1.8 to 2 per cent. So, the ECB broadly fulfilled its inflation aim and remained credible. At the same time, however, very stable inflation during the first decade of the euro was followed by much more volatile inflation during the second, the crisis decade (for which

¹ Hartmann, P., and F. Smets (2018), The first twenty years of the European Central Bank: monetary policy, ECB Working Paper, no. 2,219, December. The revised version for Brookings will appear under the title “The European Central Bank’s Monetary Policy during Its First 20 Years”.

it ranged between 4.1 and -0.7 per cent). Moreover, after the sovereign debt crisis inflation remained very low for several years despite highly expansionary monetary policy.

2. The strategy, the early years and the end of the technology cycle

So, let us look in greater detail at the four cyclical periods that combine to the first 20 years of the euro. At the start the ECB had to deal with two major challenges. First, how to establish quickly the credibility of the new institution and, second, how to adopt a systematic approach to monetary policy against the background of the pervasive structural change that the currency union implied.

To ensure robustness against these challenges, it introduced under the leadership of its first chief economist, Otmar Issing, the “stability-oriented monetary policy strategy”. First, an initial definition of price stability of an HICP increase of below 2 per cent in the medium term allowed investors to assess whether we fulfilled our objective. The medium-term orientation of it later also inspired inflation targeting central banks. Despite policy makers’ explanation, however, that the ECB pursues price stability symmetrically, a number of observers suspected the ECB could be tougher on upside risks to price stability than on downside risks. Second, the ECB introduced a two-pillar framework of an economic and a monetary analysis, with a prominent role for money. To me, a strength of this strategy is that it combines the two paradigms that dominated macroeconomics in the decades before the European Economic and Monetary Union (EMU), rather than taking sides in favour of one. The prominent role of money also allowed borrowing some credibility from the Deutsche Bundesbank. Still, some observers accustomed to inflation targeting strategies criticised the prominence of the monetary analysis. Third, the ECB’s communication and accountability framework included a press conference shortly after the monetary policy decisions of the Governing Council and, as of 2000, the publication of macroeconomic projections. The practice of a timely press conference was later also adopted by other major central banks, including the Fed. Finally, monetary policy was implemented through a broad operational framework with a large number of counterparties and a wide-ranging set of admissible collateral.

Equipped with this overall framework for monetary policy, the ECB experienced a first cyclical period between January 1999 and June 2003 – marked in grey on the left of the chart –, when the technology bubble peaked and then broke down. At first the ECB’s anti-inflationary credibility was tested as the euro depreciated against the dollar reaching a low of 83 cents and headline inflation peaked above 3%. The ECB countered the inflationary pressures with a series of interest rate increases adding up to a total of 225 basis points. Moreover, the ECB, the US Federal Reserve, the Bank of England and the Bank of Japan stopped further depreciation through concerted foreign exchange interventions in September 2000 “because of their shared concern about the potential implications of recent movements in the euro exchange rate for the world economy”.

But when the dot-com bubble burst and the 11 September 2001 terrorist attacks depressed confidence, the perspective reversed. In order to contain the disinflationary pressures the ECB cut interest rates by a cumulative amount of 275 basis points. It did this despite ballooning M3 growth, which got inflated by flight-to-safety portfolio shifts and therefore decoupled from credit growth. Two discussions were the consequence: a first one about the possibility of hitting the zero lower bound of interest rates and another one on the reliability of money growth as an indicator of risks to price stability and associated communication challenges.

So, after about four years of experience Otmar Issing initiated a review of the ECB's monetary policy strategy, whose conclusions were announced in May 2003. First, the inflation aim was clarified to be "below, but close to 2 per cent". This made sure that markets understand the buffer to deflationary scenarios. Second, the annual review of the reference value for M3 growth based on the quantity equation of money was stopped. Third, the order of the monetary and economic analysis in the ECB president's introductory statement to the press conference following monetary policy decisions was reversed, with the economic analysis now coming first – speaking to the short-to-medium run – and the monetary analysis second as a "cross-check" – speaking to the medium-to-long run. In other words, the results of the review diminished the prominence of money in the ECB's strategy. And, over the years to come, the ECB invested in research further broadening the monetary analysis to include increasingly elaborate assessments of financial intermediation and bank lending in the euro area. These results were applauded by outside observers, although it turned out that they did not entirely extinguish suspicions among ECB critics that we could pursue our objective asymmetrically or criticism of the monetary analysis.

3. Economic upturn and growing imbalances

We date the second cyclical period of the euro area from July 2003 to July 2007. It was the economic upturn during which financial and economic imbalances built up in the euro area. After the monetary accommodation in the second half of the previous period the ECB held interest rates stable for two and a half years. But then euro area growth became increasingly more forceful. Moreover, money and credit growth – moving this time in tandem – became increasingly more vibrant. In fact, the monetary analysis was influential in the Governing Council's December 2005 decision to start raising interest rates. With rates being lifted by 200 basis points, inflation stayed close to 2 per cent for the whole period.

At the same time, the vibrant money and credit growth and some papers and speeches from the Bank for International Settlements triggered a debate about the relationship between monetary policy, asset prices and financial stability. Also policy makers from the ECB publicly discussed whether monetary policy should sometimes "lean against the wind". And later on, when the financial crisis had broken out, some renowned economists represented the view that too loose monetary policy may have contributed to the financial imbalances that

ultimately caused the crisis. So, let us examine both considerations for the euro area from a real-time perspective.

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The chart on the screen shows the results of a policy rule of the Orphanides type in which we feed the ECB's projections for inflation and real GDP growth. The dark blue line shows the actual interest rate changes and the light blue range the rate changes predicted by the rule for an inflation aim set between 1.5 and 2 per cent. The first point to observe is that for most of the times before the ECB policy rate hit 0 per cent in July 2012, the ECB rate changes match pretty well the ones predicted by the rule. In other words, the ECB seemed to have a systematic reaction function. Second, this also applies to the second cyclical period, including the last two years before the crisis. So, against the background of our own macroeconomic projections, in 2006 and 2007 we were not too loose, potentially fuelling financial imbalances. Nor were we "leaning against the wind", i.e. raising rates by more than the general outlook would have suggested, for example to further contain credit growth.

4. The European twin crises, the double-dip recession and non-standard monetary policy as a complement

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Let me turn now to the European twin crises and associated double-dip recession, which constitute the third cyclical period between August 2007 and June 2013. In the initial part of the crisis between August 2007 and August 2008, at the time often referred to as market turmoil, the ECB's operational framework took centre stage. Providing large amounts of liquidity to address impaired funding markets, the ECB acted like a lender of last resort for the banking system. The broad and flexible operational framework turned out to be well suited for this. In doing so, the ECB applied a "separation principle": liquidity operations addressed the financial turbulences, so that the main policy rate could continue focusing on price stability. In other words, standard and non-standard monetary policy measures were regarded as complements and not as substitutes. An issue is, however, whether the separation principle may have contributed to – what some observers regard as "premature" – monetary policy tightening in 2008 and 2011. For example, in July 2008 when euro area inflation was heading above 4 per cent – a historical peak clearly visible in the blue line of the chart – the Governing Council raised interest rates by 25 basis points. Our policy rule goes in the opposite direction, indeed, although the difference is rather small and short-lived.

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When the Lehman Brothers failure revealed the systemic financial crisis in September 2008 and the outlook darkened considerably, the ECB was quick to drastically loosen monetary policy cutting interest rates by 400 basis points over 7 months. The main policy rate reached

a historical low of 25 basis points. This was accompanied by a series of non-standard measures, which the ECB denotes as “credit easing” policy, and which addressed not only funding problems but also impairments of the banking lending channel. They included a switch to fixed-rate full allotment tenders for all refinancing operations, long-term refinancing operations (LTROs) of 6 months and one year as well as a first asset purchase programme for covered bonds. This supported a considerable recovery, which raised real GDP growth – the green line in the chart – from a very deep recession to positive rates at the turn of the year 2009 to 2010 and inflation rates from negative territory to numbers close to the ECB’s definition of price stability in the course of 2010.

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The start of the European sovereign debt crisis is dated in May 2010. The Greek “debt deceit” and the following destabilisation of a sequence of other euro area countries’ sovereigns, however, did not break the recovery for the area as a whole immediately. In fact, growth remained above 2 per cent until the start of 2011 and inflation hovered way above 2 per cent for most of 2011, peaking at 3 per cent in November. Nevertheless, confronted with major impairments of a key monetary transmission channel for a series of countries and following a controversial discussion, the ECB adopted its first purchase programme for government bonds in May 2010, the Securities Markets Programme (SMP). Research suggests some effectiveness of the SMP, but ultimately it could not stem the tide in government bond yields. It had been announced as being limited in size, temporary and, at the time, there was no mechanism available to associate it with credible conditionality about the reforms necessary for removing the underlying sources of the distress in the countries concerned. So, in the course of 2011 growth started to fall towards 0. The following second recession was special to the euro area, with unemployment ratcheting up a second time and existential challenges emerging for the monetary union.

Anticipating the protracted consequences of this second recession, an important question is whether the ECB could have reacted much more decisively to the sovereign debt crisis. Frank and I argue in our paper that this was hardly possible. Severe solvency problems of sovereigns and banks lingered on for much too long in the euro area. They gave rise to enormous obstacles to effective monetary policy, which were further reinforced by the sovereign-bank nexus and even re-denomination risk – yield spreads that reflected market expectations that countries could leave the euro. Those obstacles dwarf the widely debated but short-lived interest rate increases in 2008 and 2011 by a wide margin.

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If we go back to our Orphanides rule for the euro area to look at the 2011 case, then you can see that it predicted in real time even earlier and somewhat higher interest rate increases than actually happened. Before 2012 member countries just could not solve the collective action problems that emerge in a crisis of a monetary union in which prudential

and fiscal policies are national. And the ECB had to balance the need to repair monetary transmission mechanisms with the prohibition of monetary financing in the EU treaties, which forbids that it finances governments or re-capitalises banks.

Since we have the policy rule still on the screen, let me also mention three results from an estimated version of it. First, one can back out an implied inflation aim for the ECB of 1.8 per cent. Second, a formal test that the ECB may fight deviations above this number more forcefully than deviations below it rejects this suspicion by some observers. But, third, there is another “asymmetry” in the data. When inflation is above the aim, then the ECB reacts more to the inflation outlook, but when it is below more to the growth outlook.

The turning point of the sovereign debt crisis only emerged during 2012 when the seriousness of the situation led governments to overcome their differences. Agreements about the permanent European Stability Mechanism (ESM), the European Banking Union and a series of other reforms put the resolution of the fiscal and prudential weaknesses on a much more credible path than previously the case. In this new context, the ECB could bring its non-standard monetary policy toolkit to another level. Following President Draghi’s famous words in London in July 2012 that the ECB will do “whatever it takes” within its mandate to preserve the euro, it established the Outright Monetary Transactions (OMT) programme. Under the OMT government bond purchases can, in principle, be unlimited provided that the country concerned is under an ESM adjustment programme. The ECB also eliminated the remaining 25 basis points from its policy rate, reaching 0 in July 2012. The series of all these events made sovereign spreads retreat and the existential threats to the euro area vanish.

5. The low-inflation recovery and non-standard monetary policy as a substitute close to the lower bound

The fourth and last cyclical period starts in July 2013. We call it the “low-inflation recovery”. The sovereign debt crisis had left its scars with high euro area unemployment and a large output gap. While growth was picking up moderately, inflation declined continuously – returning below 0 at the turn of 2014/2015 –, signs of de-anchoring risks in both market-based and survey-based inflation expectations emerged and indicators of deflation risks became elevated. Therefore, beginning in mid-2014 the ECB engaged in a “three-pronged” easing approach to dispel any doubts that the ECB has tools to fight those developments close to the lower bound of interest rates. But it also did so to address heterogeneous pass-through in bank lending markets. This included 1) negative policy rates, 2) funding for lending schemes in the form of attractive targeted longer-term refinancing operations (TLTROs) and 3) large asset purchase programmes, including for government bonds. Now the asset purchases became substitutes for the increasingly constrained standard interest rate policy. Therefore, Quantitative Easing also started in the euro area, even though much later than in other major constituencies. Moreover, in an increasingly complex non-standard

monetary policy space the ECB enhanced communication, for example adding at the start of this cyclical period forward guidance to its toolkit.

While all this made us more similar to our main peers, it also brought upon ourselves the heated discussions about the benefits and costs of the different non-standard tools. Let me just mention on the topic of effectiveness that ECB staff estimates the impact of the three-pronged easing strategy between 2016 and 2019 to be a cumulative 1.8 percentage points of additional inflation and real GDP growth, respectively, i.e. on average more than 40 basis points per annum. This roughly corresponds to two to three million additional jobs in the euro area.

6. Concluding remarks

It is time to conclude. We argue that, overall, the ECB broadly delivered on its price stability mandate during its first 20 years. It required, however, major efforts during the crisis-stricken second decade of the euro. And it is probably fair to say that the fallout from the sovereign debt crisis and the collective actions problems of member states in an incomplete monetary union of otherwise largely independent countries created some major difficulties for preventing that inflation would not run low for quite some time. Our narrative, however, is that – in the context of the EMU setup at the time – it is hard to see how the ECB could have reacted much more proactively without violating the monetary financing prohibition. In general, our monetary policy strategy and framework served us well, notably because it was adapted to new challenges when needed. Over time, the ECB broadened its monetary policy toolkit and now resembles its peers more.

Some aspects of the ECB's policy framework also inspired other central banks, for example the medium-term orientation of our price stability aim, the press conferences soon after the monetary policy decisions and the broad and flexible operational framework.

In what concerns the incompleteness of the EMU construction and the associated imperfections in fiscal and prudential policies that played such a large role in the European twin crises, some important issues have been addressed in a series of reforms. For example, the permanent European Stability Mechanism has been established and the first two legs of the European Banking Union, the Single Supervisory Mechanism (at the ECB) and the Single Resolution Mechanism. Moreover, a Macroeconomic Imbalance Procedure has been introduced.

ECB monetary policy benefits tremendously from a thorough implementation of these reforms and from compliance with their objectives and rules. It would also benefit enormously from further progress with completing EMU.