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The European Central Bank's Monetary Policy during Its First 20 Years

ABSTRACT On June 1, 2018, the European Central Bank (ECB) celebrated its 20th anniversary. This paper provides a comprehensive view of the ECB's monetary policy over these two decades. The first section gives a chronological account of the macroeconomic and monetary policy developments in the euro area since the adoption of the euro in 1999, going through four cyclical phases "conditioning" ECB monetary policy. We describe the monetary policy decisions from the ECB's perspective and against the background of its evolving monetary policy strategy and framework. We also highlight a number of the key, critical issues that were the subject of debate. The second section contains various assessments. We analyze the achievement of the price stability mandate and developments in the ECB's credibility, and we also investigate the ECB's interest rate decisions through the lens of a simple empirical interest rate reaction function. Finally, we present the ECB's framework for thinking about nonstandard monetary policy measures and review the evidence on their effectiveness. One of the main themes of the paper is how the ECB utilized its monetary policy to respond to the challenges posed by the European twin financial and sovereign debt crises and the subsequent slow economic recovery, making use of its relatively wide range of instruments, defining new ones where necessary, and developing the strategic underpinnings of its policy framework.

Conflict of Interest Disclosure: The authors are senior managers of the European Central Bank, the public authority whose monetary policy is discussed in this paper. They did not receive any financial support from any firm or person with a financial or political interest in the paper. No outside party had the right to review the paper before circulation.

Comments and Discussion

COMMENT BY

LORENZO BINI SMAGHI My discussion of the very interesting paper by Philipp Hartmann and Frank Smets on the first 20 years of the European Central Bank (ECB) is inevitably influenced by my professional and academic background. First, I was a member of the Executive Board and of the Governing Council of the ECB between June 1, 2005, and December 31, 2011. During that period, I voted in favor of all the decisions that were made by the ECB. Second, I studied monetary theory and policy at the University of Chicago in the early 1980s, and thus have been influenced by Milton Friedman's writings, in particular his 1967 AEA presidential address on the role of monetary policy, in particular when he states that

> the first and most important lesson that history teaches about what monetary policy can do . . . is that monetary policy can prevent money itself from being a major source of economic disturbance. This sounds like a negative proposition: avoid major mistakes." (Friedman 1968, 12)

Avoiding making big mistakes is what haunted me during my ECB term. And that is the approach that I would like to take in discussing the paper by Hartmann and Smets.

The biggest mistake that any central bank wants to avoid is to miss its main objective, which is price stability. As Hartmann and Smets confirm in their paper, over the last 20 years, the average rate of inflation in the euro area has been about 1.7 percent, which seems to be within the range of what could be an arithmetic definition of price stability.

I broadly share Hartmann and Smets's conclusions that, overall, the ECB has fulfilled its mandate. It has acquired a high level of credibility as a central bank, in particularly difficult times. Inflation expectations have been firmly anchored. However, precisely because of the high credibility gained on the ground, the ECB should be slightly more open to assess its performance in response to the various criticisms that have been raised by academics, markets participants, and the public opinion over the last few years. Here, I make a few suggestions concerning the issues that should stimulate further research.

THE DEFINITION OF PRICE STABILITY The ECB has never given a precise numerical definition of price stability. Hartmann and Smets quote Otmar Issing at a 2003 press conference, stating that "a narrow range between roughly 1.7% and 1.9%" should be considered as being consistent with price stability (ECB 2003b). This reminds me of the same sort of calculation that Jean-Claude Trichet was continuously making during his term. As he left the ECB, at the end of October 2011, he was proud to mention—with a certain humor, however—that since the start of the euro, inflation had been on average 1.99 percent, and thus—at least in his view—fully in line with the objective of price stability (Trichet 2011). How bewildered would he now be to learn that—with the benefit of hindsight—1.99 percent was in fact too high, being outside the range of 1.7 to 1.9 percent mentioned by Hartmann and Smets and, in fact, "too close" to 2 percent!

Let us face it, the word "below"—inserted just before 2 percent in the definition of price stability—was added, in my opinion, with a view to emulate the Bundesbank, given that some members of the Governing Council thought at the time that a symmetric target would lead markets to think that the ECB would be excessively tolerant with an inflation rate above 2 percent. And perhaps it was also to reassure the German public that the ECB Governing Council would be as tough as the Bundesbank. In fact, the evidence over the last 20 years shows that the ECB's performance has been much closer to target than the Bundesbank was in the previous decades, albeit in a different inflationary environment.

The words "close to" were added in 2003, at the time of a review of the monetary policy strategy to avoid the impression that the ECB would tolerate deflation. Not doing like all other central banks—that is, providing a symmetric target of about 2 percent—might have been "prudent" 20 years ago. It is doubtful that it remains appropriate after 20 years of experience. All in all, having a qualitative—rather than a quantitative—definition of price stability has not helped the ECB, and has not even shielded it from criticisms, including those by Otmar Issing himself, who recently stated that an inflation rate of 1 percent was perfectly consistent with the "close to 2 percent" (ECB 2003a, 79), suggesting that he himself had forgotten about his 2003 range. In fact, Hartmann and Smets confirm that the ECB's reaction function over the last 20 years has been consistent with a symmetric inflation target. To conclude, a first lesson that could be drawn from the evidence is that the time may be ripe to move to an explicit 2 percent target, which would be not only more credible but also more transparent.

THE LEADS AND LAGS OF MONETARY POLICY Hartmann and Smets's judgment that the ECB did not made big mistakes, having achieved an inflation rate of close to 2 percent, is based on the average performance over 20 years of monetary union. Central banks cannot be held accountable for keeping inflation at target month after month, but over a certain period of time, given that monetary policy operates with long and variable lags. It is not by chance that the words "over the medium term" are an integral part of the ECB's definition of price stability (ECB 2003b, 79). What is thus the appropriate time period for assessing whether inflation has been on target? One year may be too short, but for sure 20 years is too long. The lags with which monetary policy instruments hit their objective range between 18 to 36 months. This is why central banks make forecasts over such a horizon. If this is an appropriate criterion, we may want to test the hypothesis whether the ECB failed to meet its objective between 2013 and 2018. During these six years, as can be seen from the figures in Hartmann and Smets's paper, inflation—both headline and core—is, for the most part, below the range of 1.7 to 1.9 percent. It is thus legitimate to investigate the reasons for such an underperformance, which incidentally is not unique to the ECB. The key question is whether, during this period, monetary policy has been behind the curve—in other words, has been reacting too little too late.

THE FINANCIAL CRISIS AND MONETARY POLICY The financial crisis hit the monetary union after less than 10 years of its young life. The ECB reacted forcefully, but in an environment where it did not always have all the relevant information to fully appreciate the situation or the tools to calibrate its response. Here I point to a few examples, which may deserve greater analysis and a better understanding.

After August 2007. In August 2007, as the money market stopped functioning properly, the ECB intervened by injecting more than €90 billion in one day, accommodating all the demand for liquidity from its counterparties (ECB 2007). In the following months, the money market continued to malfunction, especially at 3-month maturity, which is a key reference rate. The ECB nevertheless kept its tender procedures unchanged, in spite of the growing divergence between market and policy rates. It decided to move to fixed-rates/full-allotment procedures only in October 2008, long after Lehmann Brothers' crash.

This—in my view—might have been a mistake, which derived from a less than complete understanding of the health of the banking system. In that period, the ECB was able to gather information on the euro zone banking industry only indirectly, through the national bank supervisors. This was a large source of inefficiency, because local supervisors had the incentive to underreport the problems of their financial sector.

The July 2008 rate hike. In June 2008, the ECB decided to call for vigilance, which was the catchword for announcing an interest rate rise at its meeting the next month. With the benefit of hindsight, that decision may look like a mistake, and has been widely criticized by observers. The crisis erupted two months later, and the ECB had to rescind its decision, cutting rates in October 2008. Figure 22 in Hartmann and Smets' paper shows that such a decision was not warranted, based on a Taylor rule.

Although no single interest rate decision can constitute a major policy mistake, it is useful to clarify the reasoning underlying this decision. First, the euro zone's headline inflation had been above 3 percent for several months, and inflation expectations were at risk of dis-anchoring. Credit growth was still strong. Conversely, core inflation was still hovering around 2 percent, and the economy was showing signs of slowing down, after a buoyant first quarter. The ECB clearly did not read the signals coming from the real economy, which was decelerating rapidly from the middle of the second quarter. Part of the reason for such a misreading derived from the fact that at the time, the ECB had to rely mainly on national central banks to assess short-term cyclical developments.

The 2008 decision—seen in retrospect—also shows the excessive emphasis that the ECB put on the monetary pillar of its strategy. I will not elaborate further on the two-pillar strategy, an issue extensively discussed by Hartmann and Smets. However, the time may have come to reassess it. The emphasis on monetary indicators, in spite of the lack of stability in the demand for money in the euro zone, may have been a price to be paid at the start of the monetary union, but has become less justified.

The 2011 interest rate hikes. In 2011, the ECB decided to raise rates twice, as announced in March and June. These hikes were reversed after a few months, as the financial crisis deepened. There is a large debate in the literature as to whether these decisions are not to be put in the "big mistake" category, because they may have made the crisis even worse.

My personal judgment is that while the decision announced in March was not a big mistake, the second one might instead have been one. Looking at the data available in the spring of 2011, the euro zone was recovering quite strongly and inflation was moving again, toward 3 percent. Under these circumstances, a hike of 25 basis points could have been justified. Figure 24 in Hartmann and Smets's paper suggests that a rate hike could have been appropriate even earlier. Other central banks had also raised rates.

At the time of the second hike, the situation had changed substantially, not so much with respect to the real economy but to the risks to financial stability in the euro zone. The restructuring of Greek debt became a clear option at the end of April. Long-term rates started rising gradually but steadily in most peripheral countries. The ECB was opposed to debt restructuring, because of the potential contagion to other countries. It nevertheless made the decision to hike its policy rates, in the expectation that it would not have an impact on the financial situation. It is difficult to assess the extent to which the decision exacerbated the worsening financial conditions. To say the least, it did not help.

SMP versus "whatever it takes." An issue for discussion is why did the ECB wait for more than two years to state that it would do whatever it takes to ensure the stability of the euro and to avoid having a country driven out of the euro against its will. The answer is complex. In 2010, when the ECB started the Securities Market Programme (SMP), the crisis appeared to be circumscribed to three countries; but in 2012, it became systemic. Second, in 2010 the European Stability Mechanism had not yet been established, and the procedure for setting the conditionality for the countries requesting financial support was not yet defined. Third, the institutional framework underlying fiscal discipline had been weakened, especially after the disclosure of Greek budgetary overshooting, thus putting at risk the boundaries between fiscal and monetary policy. The Fiscal Compact, which was adopted in 2012, created the conditions for protecting the ECB from the risk of fiscal dominance.

Overall, the conditions for adopting the Outright Monetary Transactions (OMT) program were not yet mature in 2010. However, the temporary and limited nature of the SMP, which was periodically conveyed to the markets, over time became factors in reducing its effectiveness. One of the OMT's key features is precisely its unlimited nature, which is a fundamental characteristic of a fiat money system, whereby the central bank can create unlimited amounts of central bank money to accommodate demand, and thus stop any panic. This is why the OMT is still untested. If it appeared at any time that there were limits to the OMT, markets would immediately test it. The fact that the SMP was declared to be limited and temporary reduced its effectiveness. Markets interpreted this limit as a sign of the ECB's unwillingness to fully implement the program, and they periodically tested the ECB's resolution.

Negative rates versus quantitative easing. In the spring of 2014, the ECB decided to lower its deposit rates into negative territory. About one year later, it decided to also start quantitative easing (QE). It is fair to ask whether this sequence was right. The decision to cut rates was probably made in the expectation that it would be a sufficiently bold move to allow the ECB to avoid starting QE, which was politically controversial. With the benefit of hindsight, it is legitimate to ask whether and to what extent the ECB underestimated the impact of the financial crisis on the real economy, starting with the recession in 2012–13 and then with the slow pace of the recovery. It also appears that the ECB may have underestimated the extent to which the banking part of the transmission channel of monetary policy was clogged, partly due to the fact that banking union really started only at the end of 2014, when the SSM took full responsibiliy. It looks like a coincidence that QE started in May 2015, only six months after the start of the banking union.

The argument against QE in Europe was largely based on the assumption that though in the U.S. monetary policy operated mainly through markets, in the euro zone monetary policy operated through the banking system. However, at the zero lower bound, or in negative territory, a fixed-rate/full-allotment tender procedure makes the supply of money entirely demand determined. As Paul Samuelson (1948, 353–54) would remind us, "You can lead a horse to water, but you can't make him drink."

The reasons why banks did not drink may not have been fully perceived and understood. To be sure, the Target2 data were providing confusing evidence. Balances increased during the crisis, until July 2012, and then decreased sharply after the "whatever it takes" statement (Draghi 2012). At the time, this was considered as a signal that financial tensions were easing, but it also revealed that the supply of central bank money was remaining stable, as the economy was getting out of the slump, signaling that monetary policy was too restrictive. In fact, the size of the ECB's balance sheet started rising only when QE was implemented.

These issues should be thoroughly discussed to understand whether indeed, as some may suggest, monetary policy might have reacted too slowly during the crisis and may have maintained an excessively restrictive stance during the recovery. To be sure, these policy decisions were not uncontroversial. However, with the benefit of hindsight, those who thought that monetary policy was being too expansionary and was putting price stability at risk were proved consistently wrong.

OVERSTEPPING THE MANDATE Throughout the global financial crisis, central banks were criticized for having come very close, or even overstepped, their mandate. The ECB was not immune from this criticism, which came from several sides and different perspectives. The most publicized is the compatibility with the Lisbon Treaty (EU 2007) of the SMP, the OMT and QE—all of which imply the purchase of government bonds. The compatibility of these policies with the ECB's independence and with the prohibition of monetary financing has always been relatively clear, at least from an economic point of view—in particular, because these instruments have been adopted by other independent central banks—and subsequently from a legal point of view.

Other controversial issues have received less attention, but are at least as important for the conduct of monetary policy and the integrity of the monetary union. I only mention three.

The collateral framework. In 2006, the ECB revised its collateral framework to set a minimum standard rating for the assets posted as collateral for monetary policy operations. At that time, the issue was not considered so relevant, because all countries had a rating much above the threshold. The threshold was set in such a way as to make sure that all government bonds could be used as collateral. The decision was not without controversy within the Governing Council. Some raised the issue of arbitrariness and the risk of creating a kink effect that could destabilize financial markets. The ECB is, to my knowledge, the only central bank that may refuse government bonds as collateral and resorts to external rating to set haircuts. This policy produces procyclical effects and may add to financial instability.

Such a policy seems to be based on a priority given to the quality of the balance sheet, and the need to avoid losses to the central bank, at the expense of other priorities that do not concern the ECB directly. However, central banks do not have the maximization of profits as an objective, nor the minimization of losses. The Lisbon Treaty states that, without prejudice to the primary objective, the ECB should support the general economic policies of the Community—as laid down in Article 2 of the treaty, which states that the task of the Community is to "promot[e] throughout the Community a harmonious, balanced and sustainable development of economic activities, a high level of employment and of social protection, equality between men and women, sustainable and non-inflationary growth, a high degree of competitiveness and convergence of economic performance, a high level of protection and improvement in the quality of the environment, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States" (EC 2006). To sum up, it may be time to revise the ECB's collateral framework, to avoid it being part of the problem rather than the solution.

Emergency Liquidity Assistance. At the start of the monetary union, the Emergency Liquidity Assistance (ELA) policy has been designed for banks that, though solvent, do not have adequate collateral to apply for the ECB's regular monetary policy operations. The ELA policy foresees that the liquidity is provided by the national central bank, with collateral, and thus the risk, posted with that central bank, which are not shared within the Eurosystem. The ECB can only revoke the decision on the basis of a special procedure (ECB 2017). The reason is that the responsibility for assessing whether the bank is solvent was in the hands of the national supervisors. However, with the creation of the Single Supervisory Mechanism at the ECB, the responsibility for declaring a bank solvent has been centralized. It thus appears logical that the risk, and the decision to grant ELA, become centralized.

One specific instance in which the ECB has been strongly criticized is in dealing with the Greek crisis, in particular on the eve of the June 2015 referendum. The ECB limited Greek banks' access to ELA, in a way that might have fueled a run on the banks and caused a loss of confidence. It was obviously difficult for the ECB to consider Greek banks on the same level as other banks a few days before a referendum that was calling Greece's membership in the euro zone into question. Conversely, the ECB's decision had a direct effect on Greece's financial situation, which may not have been fully in line with the mandate of the ECB itself.

Participation in the Troika. Since its inception, the ECB has been part of the Troika—together with the European Commission and the International Monetary Fund—which is in charge of the technical discussions underlying the definition and monitoring of the adjustment program. This role was particularly important with respect to the need to have adequate information about the banking system and making sure that the adjustment program foresaw an adequate capitalization. However, such a role is quite peculiar for a central bank, given that it gets into policies that are not of its competence. There is a risk of getting involved in political discussions, and thus losing degrees of freedom. Now that the banking union has transferred supervisory functions at the ECB, there is much less need for it to participate in the Troika.

CONCLUSION To assess the ECB's performance over the last 20 years on the basis of its primary objective, which is price stability, is necessary but probably not sufficient. The ECB is one of the European Union's institutions, and cannot be immune from the economic, social, and political developments that affect the Union. Although the ECB has demonstrated in a few years that it is an effective and efficient central bank, it should not fear that its credibility can be undermined by an open discussion of its key decisions over the years. Like other EU institutions, the ECB has been affected by a negative confidence trend, as reflected by the Eurobarometer polls. Although the last Eurobarometer shows that favorable opinions about the euro have gone back above precrisis levels and reached a peak (74 percent), and those against the euro have fallen to a minimum (20 percent), the share of respondents who "trust the ECB" has fallen below those that do not trust it (42 percent against 45 percent; it was 46 percent against 27 percent before the global financial crisis) (EC 2018). Changing these opinions is certainly a challenge for the years to come. Hartmann and Smets's paper is a good start in this endeavor, but only a start.

With respect to the issues that may need be reassessed, 20 years later and in light of experience, I suggest these: (1) the definition of price stability, symmetric at 2 percent; (2) the further downgrading or elimination of the monetary pillar; (3) centralization of the ELA policy; (4) a review of collateral policy; and (5) an exit from the Troika.

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COMMENT BY

LUCREZIA REICHLIN The paper by Philipp Hartmann and Frank Smets provides a useful narrative of the first 20 years of the European Central Bank (ECB) and an assessment of its performance. Overall, the authors' assessment of the ECB's record is very positive. There are four main conclusions:

1. The ECB has been successful in respecting its price stability mandate throughout its 20 years of history.

2. Its two-pillar strategy and definition of price stability target have served it well.

3. The tools associated with its strategy have evolved over time in a pragmatic way and responded successfully to the challenges of the global financial crisis.

4. Its operational framework revealed itself to be robust to the test of the worst crisis since World War II.

There is a lot to agree with in this assessment, and especially on the broad conclusion that, notwithstanding the global financial crisis and contrary to the expectation of many, the euro has emerged as one of the world's main currencies and the ECB—at least so far—has been a credible custodian of its value.

My own assessment is nevertheless more nuanced. In my view, the main question that should be answered, after 20 years of the life of the euro and 10 years after the global financial crisis, is whether the economic framework on which the European Economic and Monetary Union is based, and the ECB's central role in it as a central bank without a state, is adequate to face periods of particular financial and economic stress. The answer here is not straightforward, and the analysis of the crisis should give elements for reflection on necessary reform.

My remarks are organized in two sections. First, I discuss the ECB's nonstandard policies during the crisis. And second, I comment on interest rate policy during the same period. I base my remarks on my published work on the subject (in particular, Lenza, Pill, and Reichlin 2010; Pill and Reichlin 2014, 2016a, 2016b; and Reichlin 2014, 2018).