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# The First Decade of EMU: What Have Academics and Policymakers Learned from Each Other?

*The adoption of the euro has been a politically-driven process. Economic principles then available were not perceived by policymakers as operational and were largely discarded. This was the case for the entry criteria and the monetary policy strategy. Later on, the Stability and Growth Pact could have been built on existing principles, but the link with the Maastricht criteria prevailed, as they did when the pact was revised. Since the launch of the common currency, academic research, largely integrated with central bank research, has made considerable progress on a wide range of policy-relevant issues. Yet, there remain gaps between the results of this research and policymaking. In brief, academic research has learned a lot from policymakers but policymakers absorb slowly the results of academic research.*

## 1 Introduction

The creation of the euro was first and foremost a political undertaking. It did not start with the Delors Report in 1989. It did not even start with the Werner Report in 1970. It goes back to Article 2 of the 1957 Treaty of Rome: “The Community shall have as its task, by establishing a common market and an economic and monetary union [...] to promote throughout the Community a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment, a high degree of convergence of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States.” Although couched in economic terms, the Treaty aimed at establishing peace and prosperity in a continent which had been at war for times immemorial.

Fifty years after the Treaty of Rome and almost ten years after the creation of the monetary union, we can declare mission accomplished. The current difficulties with the adoption of a new treaty indicate that a page has been turned. Much as history never ends, much remains to be done to improve

the European Union, but the new tasks are more of a housekeeping nature than the daring housebuilding carried out so far. This is why it is an appropriate time to reflect on our history. In particular, a decade of experience with the euro invites all of us to review the choices made since the setting up of the Delors Committee.

I look at the debates among economists, mainly those between central bankers and academic economists. Each profession is far from unanimous, so I must start with a disclaimer: When I mention central bankers and academic economics, I refer in each case to the European mainstream. More precisely, most decisions were prepared by official bodies like the Delors Committee or the European Monetary Institute that were dominated by, or composed of central bankers. With few exceptions, academic economists were not involved in preparing these decisions. They were mostly left with the task of evaluating, criticizing and suggesting.

Reviewing the past is not just a historical exercise. Many old debates are still relevant to today’s functioning of the euro area. In this paper, I deal with three of them. The first one concerns the entry criteria, pitching the Maastricht Treaty against the optimum

currency area theory. It matters a lot because many countries are still waiting to join the monetary union. The second issue is the stability pact, a permanent and unsettled feature that has become a continuous irritant. Finally, I discuss the monetary policy strategy followed by the Eurosystem. Opinions differ, often sharply on all three issues.

## 2 Admission Criteria

The admission criteria were largely developed within the Delors Committee. In addition to its Chairman, Jacques Delors, then President of the European Commission, the Committee included the Governors of the central banks of member countries, and three experts. One of them, Niels Thygesen, was an academic economist; another one, Alexandre Lamfalussy was the General Manager of the Bank for International Settlements (BIS) with a distinguished academic career; the third one, Miguel Boyer, was a banker and former Finance Minister of Spain. Central bankers far outnumbered the others.

The Committee broke the tradition that new initiatives of the European Union – then called the European Community (EC) – involve all members or no member at all. Instead, the Committee proposed a number of conditions that would have to be satisfied, implying that some countries could remain outside of the monetary union for an indefinite period. These conditions have become known as the Maastricht criteria.

The entry criteria triggered a debate that was described as opposing “economists” and “monetarists”, strange denominations that do not fit what one normally associates with economists and monetarists. In practice, the “economists” were mainly central bankers. Their view was that admission to the monetary union must be seen as the last

step of a long process of conversion to the overriding objective of price stability. Therefore, in order to join the monetary union, a country would have to demonstrate that it is fully committed to that objective, the yardstick being adequately designed criteria. And you get in when you are ready. Most of the “monetarists” could be found in universities, although not all academic economists were in that camp. Their view was shaped by the recently developed principles of regime change. They argued that the situation was characterized by two regimes. The first regime was the starting situation, where each country has its own central bank; the second regime, the monetary union, featured just one central bank. The regime principle is that everyone understands that the two situations are radically different and, in particular, that expectations would immediately adjust when the monetary union is created. In this view, previous national experience does not matter at all and entry criteria are not needed for the sake of price stability, which must be a defining feature of the new system. The only criteria worth considering should be derived from the optimum currency area theory, which determines whether a country stands to operate correctly within a monetary union. Thus the “economists” vouched for nominal criteria while the “monetarists” argued in favor of real criteria.

The “economists” won and shaped the Maastricht entry criteria. The defeat of the “monetarists” was the consequence of several factors. To start with, as previously noted, central bankers dominated the Delors Committee. In addition, political considerations played an important role. The adoption of a common currency was widely seen as the end of the German mark domination in Europe. Understandably, Ger-

many requested that the new currency should be as strong as the German mark and asked for solid reassurances that the price stability objective would not be challenged. Finally, at the time, the optimum currency area theory was not really operational. It articulated a few principles that were rather informal, with little empirical backing and no operational implications. The views of the “monetarists” were simply not perceived as relevant or useful.

As mentioned above, the monetary union did not come as a complete surprise. It had been discussed long before, but the academics did not undertake the required research. They had accepted the policymakers’ opinion that the monetary union was not to be, at least over the foreseeable future; doing research on this topic was generally seen as a waste of time. When the monetary union came, it came very quickly. It took just a few months between the setting up of the Delors committee and the publication of the Delors Report. The report concluded that the monetary union project should be launched quickly. The sense of urgency was partly related to economic considerations, partly to political reasons. From the economic side, in the wake of the elimination of capital movement, the impossible trinity principle meant that the Exchange Rate Mechanism was doomed. Either it would become highly unstable – which it did, as the 1993 crisis soon confirmed – or monetary policy independence would be lost in all but one country, as shown by the emergence of a greater German mark area. Politically, the continuing dominance of the Bundesbank was not sustainable. An additional political factor was the unusual clout the European Commission following the adoption in 1986 of the Single Act, the first major revision of the Treaty of Rome. This conjunc-

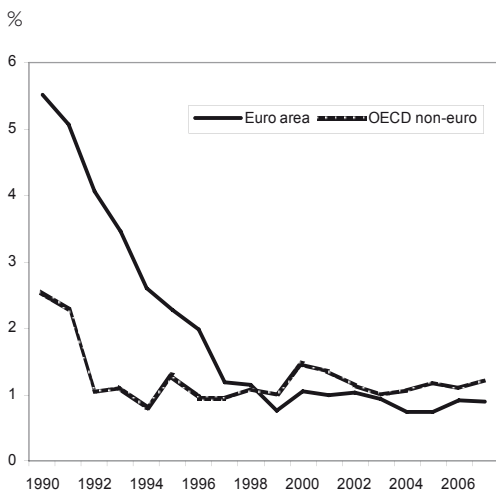
tion of favorable factors implied that action should be swift.

Academic economists realized the need to further develop the optimum currency area principles. This effort led to a consensus about the importance of asymmetric shocks and the conclusion that Europe was not exactly an optimum currency area. Lack of labor mobility attracted attention to significant degrees of labor market rigidity. While generally supportive of the monetary union, the academic literature warned that the single monetary policy would at times be inappropriate to some countries. This mixed evaluation did not register too well with policymakers, especially in the Commission who argued that “one size fits all”. It also stood at variance with the enthusiastic statements of many politicians who promised then that the monetary union would solve a large range of problems.

What is the verdict on this debate? A complete answer requires detailed analysis, but chart 1 provides a rough idea of what has happened so far. It shows a massive reduction in the dispersion of inflation rates in the euro area. This might be seen as a vindication of both the Maastricht criteria and the *one size fits all* promise. The troubling observation is that much the same pattern is observed among the OECD countries that are not monetary union members and therefore not subject to the Maastricht criteria and each equipped with an autonomous central bank. Chart 1, instead, illustrates the absence of significant asymmetric shocks since the late 1990s – the Great Moderation – along with important progress in monetary policymaking. This is not to deny that the euro has probably helped achieve better information outcome in some countries, but there is no evidence that the euro area

Chart 1

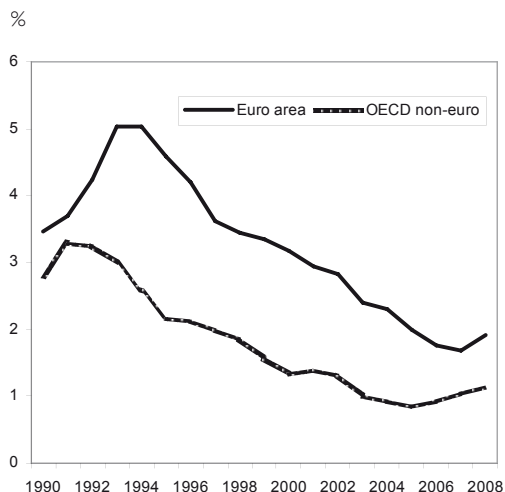
### Inflation Dispersion from 1960 to 2007



Source: International Financial Statistics, IMF.  
Note: Standard deviations of national CPI inflation rates.

Chart 2

### Unemployment Rate Dispersion from 1990 to 2007



Source: Economic Outlook, OECD.  
Note: Standard deviations of national CPI inflation rates.

has done better than other developed countries.

While the Maastricht criteria do not seem to have delivered on their promises, what about the optimum currency area principles? Since Europe is not a perfect currency area, have we seen some of the costs implied by the optimum currency area theory? In the event of asymmetric shocks, low labor mobility is predicted to lead to either higher inflation dispersion, or higher unemployment dispersion, or both. There is no evidence in chart 1 of higher inflation dispersion and similarly there is no evidence of higher unemployment volatility, as illustrated. This observation could mean that the optimum currency area theory has not been supported by the experience with the single currency. Alternatively, it could mean that the euro area has not yet faced serious asymmetric shocks. The latter is the more plausible conclusion. There is an added twist to this view, however. The optimum currency area theory also asserts that close economic integration and a diversified trade pat-

tern both reduce the odds of asymmetric shocks. It may be that we did not face asymmetric shocks because the European countries are close enough to an optimum currency area on these two criteria. A comparison with other OECD countries, however, does not back either a claim that things have been going well because Europe is close enough to being optimum currency area.

The first ten years of the single currency have not, therefore, settled the debate between “economists” and “monetarists”. The value of the Maastricht criteria has been somewhat undermined by the fact that a number of countries have doctored data to pass the entry test. In the end, all the then EU Member States that wanted to join, joined the monetary union, with a two-year delay for Greece. Those that did not join did not want to join. Does that settle the debate? Unfortunately not for a number of countries that accessed the EU in 2004 and still wait to enter into the euro area. Several of them are not admitted because they do not match

the Maastricht criteria; this is, in particular, the case of the Baltic countries. The same discussion is being re-played, except that there is little interest in the issue outside of these countries. The “monetarists” would immediately welcome Estonia into the monetary union while the “economists” are adamant that the Maastricht criteria must first be fulfilled. Now as ten years ago, the “economists” carry the day among decision-makers.

### 3 The Stability and Growth Pact

The Stability and Growth Pact is probably even more controversial than the Maastricht criteria. Here again, policy-makers have moved way ahead of academic economists. The pact was prepared and adopted in a few months, without any serious discussion outside of policy-making circles. The logic of pact is clear. The Maastricht fiscal criteria would make little sense if countries are allowed to run big budget deficit and build up public debts after joining the monetary union. These criteria, therefore, must be made permanent. An additional rationale is that there is ample evidence that a large number of European countries suffer from a deficit bias syndrome; they tend to run significant budget deficits for no good economic reason.

An additional and important rationale is the issue of fiscal versus monetary dominance. The question raised is: At the end of the day, who among governments and central banks drive the other ones when the situation becomes difficult? Are the fiscal authorities forcing the central bank to monetize the debt, or is the central bank able to completely disentangle itself from fiscal difficulties and let governments bear the entire adjustment burden? This is a very fundamental issue that every country, or every currency area, must sort out.

The general view is that monetary dominance – that central banks should never be obliged to inflate away the public debt – is a most desirable feature. Monetary dominance, therefore, requires to be carefully protected. This conclusion is not really controversial.

The controversy lies elsewhere. It concerns the question whether the Stability and Growth Pact is the appropriate mean to firmly established monetary dominance in the euro area. Two important issues immediately emerge. The first one concerns the particular approach adopted to instill fiscal discipline. This approach clashes with a standard economic principle: monetary dominance does not call for capping the budget deficit year after year; instead, it requires establishing a long-term – transversality – condition on the public debt. In other words, fiscal discipline is achieved when the public debt does not rise in the long term. This principle is not taken on board by the pact, not even in its new formulation.

The second issue concerns the justification for external constraints on member countries. When the Commission instructs a country to change its fiscal policies, some element of national sovereignty is eroded. It affects one of the most fundamental democratic principles, that public spending is under the control of citizens and their elected representatives. A very strong reason must be produced to erode such an element of national sovereignty. The pact’s justification is that large and growing debts create an important externality. Plausible as it seems, this argument is actually very weak. It rests either on the largely unproven – and not backed by solid theory – assertion that a large public debt in one country is bound to raise the euro area’s interest rate, or on the equally implausible view that it could weaken the exchange rate.



We have already ample evidence that the Stability and Growth Pact is not functioning well. Its short history has been marked by two coups. The first coup has been carried out by the central bankers who dominated the Delors Committee. They sought to establish monetary dominance by making the ECB strongly independent, a highly desirable feature, and by establishing the Excessive Deficit Procedure (EDP) that foretold the pact, an erroneous view of fiscal discipline. The second coup took place in 2003. The Finance Ministers staged a counter-coup when they put the pact “in abeyance”. In so doing, they showed that monetary



dominance is weak, a well known fact since, at the end of the day, governments have the ultimate power. The only way to firmly establish monetary dominance is to rely on adequate and solid institutions. The Stability and Growth Pact is both conceptually weak and in the hands of the potential sinners.

Depressingly enough, the new version of the Stability and Growth Pact adopted in 2005 does not address the conceptual weakness of its predecessor. Once again, during the preceding two years, policymakers did not seek to involve academic economists in their debates, which they considered too delicate. In doing so, they were not ex-

posed to some essential economic principles and instead carried out purely political negotiations, relying on the Commission for technical expertise. Unfortunately, the Commission chose to limit changes to what they saw as the minimum common denominator, in effect doing the political negotiation footwork.

What are the elements of the revised pact that violate basic economic principles? First, the deficit is endogenous, so it is a moving target beyond government control on a year-by-year basis. Implicitly recognizing this difficulty, the new pact gives some undefined role to cyclically-adjusted deficits. This, however, opens up a thorny issue: How to precisely measure cyclically adjust the deficit? How to avoid procyclical fiscal policies? Calling for comfortable surpluses in good year is a very disingenuous solution to the latter problem. A second criticism is that the transversality condition indicates that fiscal discipline is a long-run concept. It identifies the public debt as the proper target, one that ought to be aimed at in the long run, pretty much like the Central Bank is looking at price stability in the medium run. The third problem is a consequence of the previous ones. Because the year-to-year deficit ceiling is too stringent and therefore impossible to achieve, the revised pact allows for exceptions. The original pact already allowed for exceptional circumstances, but they were far too exceptional to be relevant. In trying to achieve more flexibility, the revised pact invoked a new principle, which had been suggested by some academic economists: the distinction between good and bad public spending, which lies behind the idea of golden rules. In the end, the revised pact allows for imprecise exceptional circumstances and for vaguely defined good spending items.

It should be clear that the road taken by the Stability and Growth Pact, the adoption of rules either too rigid or too complex to bind, is erroneous because it ignores that monetary dominance must ultimately be guaranteed by solid institutions. Sadly, this is a story where sound economic principles were not brought to bear in designing the Excessive Deficit Procedure in 1991, which led to the 1997 Stability and Growth Pact, and that policymakers still ignored when revising the pact in 2005.

#### 4 The Monetary Policy Strategy

My third and final description of miscommunications between policymakers and academic economists concerns the monetary policy strategy of the Eurosystem and the goals that the Eurosystem has set for itself. In 1998, the European Monetary Institute (EMI), the ECB's short-lived predecessor, adopted the famous two-pillar-strategy with a prominent role to money growth. This strategy was seemingly borne out by the stunning success of the Bundesbank, the model of a central bank that delivers price stability. It was also designed to re-assure Germany, the largest country in the European Union, which was in effect asked to abandon the German Mark. These are powerful arguments.

However, for many years already, by 1998 many academic economists had shown that, while officially following a rigorous monetary targeting strategy, in practice the Bundesbank was quite flexible. It had repeatedly missed its money growth targets, as the Eurosystem was to do subsequently. The ECB adopted a dogma that had already been abandoned many years ago in Germany.

Did academic economists have a better strategy to offer? Unfortunately again, the answer is negative. Inflation

targeting, today's dominating monetary policy strategy, was in infancy in 1998, under experimentation in a few central banks. Academic research was starting to take notice of this strategy, invented by central bankers, but had not fully articulated its logic and properties.

In that sense, the creation of the euro occurred at the wrong time. The EMI went for a formerly successful strategy that was not in use anymore, while academic economists were not ready, one more time, to make a better suggestion. The situation soon changed, however, and led to a serious debate that is still currently under way.

Academic economists soon criticized the two-pillar strategy. Initially, the criticism was based on the Bundesbank's de facto abandonment of the strategy. It soon emerged that the Eurosystem too was unable to keep money growth in tune with its "reference value". Then, gradually, academic economists started to support the inflation targeting strategy, although there was no unanimity. It took a few years for the Eurosystem to acknowledge that its official strategy was not adequate, although it never admitted that it was in fact operating quite flexibly. In 2003, the ECB conducted a review of its monetary policy strategy. This was a purely internal review that carefully excluded outside evaluation by academic or central bank experts. The review led to a revised strategy. The two-pillar strategy was upheld, but the monetary pillar was demoted to second position, with the main aim of using monetary data to "cross-check" the first, economic pillar.

The debate continues. Many academic economists have shown that the Eurosystem functions like most other central banks. It largely follows a Taylor rule, similar to those of inflation-targeting central banks. Interesting re-



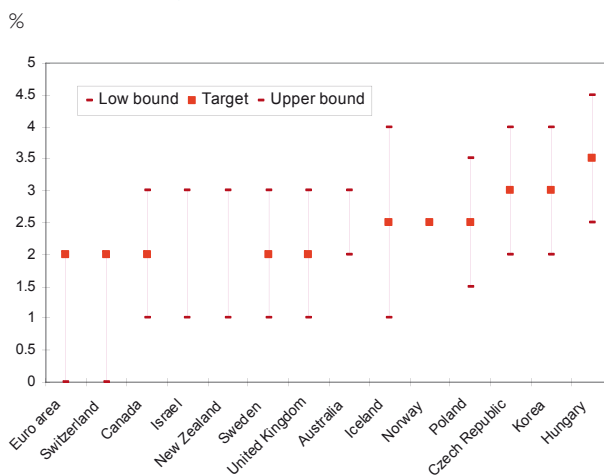
search tends to show that the causality no longer runs from money to inflation, but from inflation to money, which is therefore endogenous to inflation while inflation is endogenous to the interest rate. This no-nonsense description of how monetary policy works, including in the EU area, is far away from the official wording of the two-pillar-strategy. This is one aspect of the debate currently under way.

A second debate concerns the goal of monetary policy. Officially, the Eurosystem does not have a target. Instead, it has a definition of price stability. Price stability is mandated by the Maastricht Treaty, and this is not controversial. What is, and has been from the very beginning, controversial is its definition of price stability. The “close to but below two percent” definition is perceived as imprecise. There is no midpoint, no clear objective that can shape expectations and serve as an effective device to communicate the objectives of monetary policy.

Strikingly, over the last ten years, inflation has almost always been above two percent. This inconsistency between words and deed is unwelcome. It leads to another issue. Could the definition of price stability be too rigorous? The range of admissible inflation rates, which is somewhere between 0% and 2%, is low and is not what other central banks do. For a number of inflation-targeting central banks, chart 3 shows the central target, if it is known, along with the range of tolerance. The Eurosystem – along with the National Bank of Switzerland which has adopted the same definition – appears to be the central bank with the strictest objective. There has been very, very little aca-

Chart 3

### Inflation Objectives



Source: Central bank websites, International Financial Statistics, IMF.

demical work on what is the proper rate of inflation or how wide should the band be. There is very little theory; there are some older theories, but they are not practical. There has been limited empirical work. Rather than being critical, I would simply note that we need to do more work on that issue.

The final point of contention concerns transparency. In general, over the last decade, central bank transparency has enormously increased. The trend has been driven by a number of central banks, which have started to think very seriously about being transparent. They have been encouraged by financial markets and they have been backed by academic research. The rationale for transparency is currently being explored. We understand that the channels of transmission of monetary policy work through expectations, which has led Mike Woodford to conclude that monetary policy is mostly about managing expectations. There is also some evidence that a more transparent central bank is better able to affect market expectations.

Along with other central banks, the ECB has moved in the direction of more

transparency. Nearly from the beginning, the ECB has actively sought to prepare markets ahead of the next decision. The problem is that from the research point of view, the next decision is not really that important. Markets, and therefore policy transmission, care about the next, next, next decisions. After some initial hesitation, the ECB has started to publish inflation and output gap forecasts, but these forecasts are explicitly those of the staff, not those of the policy makers, which significantly reduces transparency. After some prodding, the ECB has also moved in the direction of basing its inflation forecast on market interest rates and not on the pretty indefensible assumption that the market interest rate will remain constant.

On many other aspects, however, the Eurosystem remains opaque. The Eurosystem refuses to publish the voting records of the deliberation of its Governing Council. Officially, the Council does not even vote, whereas the Maastricht Treaty says they should. Furthermore, the Council does not publish the minutes of its deliberations. The ECB is also famous for its use of code words. Observers are left to interpret the fine distinction between “vigilance” and “strong vigilance”.

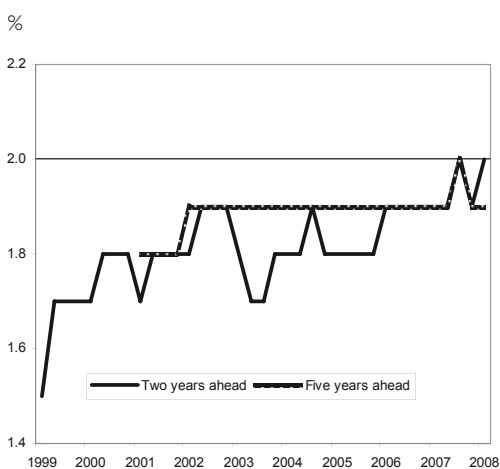
One argument advanced by the Eurosystem to justify its refusal to be more transparent is that it is a new institution which must gradually establish its credibility. In the mean time, if revealed, differing viewpoints within the Council could be misconstrued as opposing national interests. This could fuel resentment against the Eurosystem and, more generally, against the monetary union. This is a reasonable argument, but it also implies that the Eurosystem will become more transparent

once it has established its credibility. The question then is: How long could that take?

One way to look at the Eurosystem’s credibility is to examine private inflation forecasts. Chart 4 reports average forecasts by private forecasters at the two and five year horizons. Credibility requires that these forecasts be “close to but below two percent” at any horizon at which the central bank can affect inflation. It is generally understood that monetary policy produces its effects after about one year, maybe one year and a half. The two year horizon may be too short but the five year horizon is clearly beyond the medium run that the Eurosystem states as its objective. Chart 4 is disquieting; it shows that inflation forecasts have gradually crept up to the 2% level. This could mean that the Eurosystem started with considerable credibility, but that it has since been eroded. Not only does this mean that transparency is put off as time passes by, but it could also suggest that the lack of transparency is taking its toll on credibility.

Chart 4

#### Private Inflation Forecasts



Source: Survey of Private Forecasters, ECB.

## 5 Conclusion

There is no doubt that the euro has been, from the start, a massive success. Notwithstanding the current inflation spike, it has delivered price stability. Hundreds of million of citizens use the same currency and hardly anyone doubts that it is here to stay. We now see a new generation that hardly knows the name of the previous national currency. It was not a foregone conclusion *ex ante* that it would work so well. But we are not in the world of satisfying, we are in the world of optimizing, at least that's what economists are sup-

posed to do. Is the working of the euro area optimized? This paper suggests that the answer is negative.

The essential aims have been achieved but many details remain unsatisfactory. Policy has moved fast and academic economists have learned a lot from policy actions and from the policy makers themselves. Exchanges have been continuous but a fair assessment is policy makers are slow to take up some ideas. Disagreements concern details, for which learning could fruitfully go in the other direction.