MONETARY POLICY, FISCAL POLICIES AND LABOUR MARKETS

MACROECONOMIC POLICYMAKING IN THE EMU

Edited by
Roel Beetsma,
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and Patrizio Tirelli

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Monetary Policy, Fiscal Policies and Labour Markets

Macroeconomic Policymaking in the EMU

A few years after the birth of the European Monetary Union (EMU) economists are still divided in their assessment of the ability of its key institutions to provide macroeconomic stability and foster the reforms necessary to stimulate economic growth. In this collection, experts focus on issues of fiscal policy, monetary policy and labour markets and ask: Can the stability and growth pact provide an adequate framework for the conduct of national fiscal policies? Is the ECB reacting with competence and flexibility to a rapidly changing macroeconomic environment? How will national labour markets react to the new macroeconomic institutions and what are the structural reforms needed in labour markets? Blending empirical and theoretical data, this book offers one of the most comprehensive surveys of recent research in macroeconomic policymaking within the EMU today.

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Last, but not least, Silvia Pesenti and the secretarial staff of the Department of Economics of the University of Milano-Bicocca played a key role in the success of the conference.

Editors' introduction

A few years after the birth of the Economic and Monetary Union (EMU) in Europe, it is still uncertain whether EMU institutions can provide sufficient macroeconomic stability and foster the reforms necessary to stimulate economic growth. The debate among economists and policymakers has focused on three key issues:

(i) Does the Stability and Growth Pact (SGP) provide an adequate framework for the conduct of national fiscal policies or is stricter coordination of fiscal policies desirable? There are three aspects to this debate. First, whether the SGP gives national governments sufficient room for manoeuvre in stabilising domestic economies. Some economists point out that national governments still retain full discretion within the 3% deficit ceiling set in the SGP, whilst others regard the SGP as too rigid to allow for adequate stabilisation policies. As a result, suggestions to soften the SGP or discard it altogether are sometimes floated in the press. Second, whether the SGP approach, which is based on individual country fiscal discipline, will lead to uncoordinated fiscal policies which are detrimental to macroeconomic stability in Euroland. Third, whether discretionary fiscal policies may be insufficiently coordinated and inconsistent with the common monetary policy even if they are consistent with the SGP limits.

(ii) Can the ECB provide markets with adequate information about its intentions? Moreover, is the ECB reacting with sufficient competence and flexibility to a rapidly changing macroeconomic environment? The 'two pillars strategy' for the conduct of monetary policy, the secrecy surrounding ECB Council decisions and the apparent inertia in the decision-making process have been widely criticised. The ECB has reacted by pointing to the difficulties of implementing a monetary policy in a highly uncertain environment, where national financial markets are still adjusting to monetary union.

(iii) How will national labour markets react to the new macroeconomic institutions? How will trade unions react to ECB policies? Will the new macroeconomic environment induce wage restraint or will it lead to larger increases in wage inflation because trade unions internalise to a lesser

extent the macroeconomic consequences of their actions? Will monetary union lead to a more competitive environment for firms and hence lower inflationary pressure? Finally, can we expect further structural reforms of the labour markets now that EMU has been established?

These issues were the focus of a conference hosted by the University of Milano-Bicocca in September 2001. This book collects the key contributions to that conference. It is divided in three parts: Monetary policy, Fiscal policies and Labour markets. Each part contains an up-to-date survey of recent research in the area and a number of state-of-the-art contributions to the topics discussed above.

The theoretical contributions apply new modelling approaches to issues that will be crucial for the conduct of EMU macroeconomic policies in the years to come. The empirical papers on monetary policy deal with issues which are central to the conduct and assessment of ECB policies, while the empirical analyses of fiscal policies are part of a largely unexplored area of research.

Part I: Monetary policy

In chapter 1, Steven Cecchetti offers interesting insights on the institutional structure of the ECB and on the 'two pillars strategy' for the conduct of monetary policy. He also draws a comparison between the Federal Reserve System in the United States and the 'federal' structure of the ESCB where – he argues – the national central banks still play a predominant role.

In chapter 2, Carlo Favero examines the ECB's announced goals and apparent strategies. Favero also reviews the issues related to the choice of the optimal price index target. As the optimal index is related to the driving forces behind the dynamics of inflation, the chapter provides a framework for the analysis of the other empirical papers in this section.

In chapter 3, Pierpaolo Benigno and David Lópes-Salido build a micro-founded model of EMU, characterised by regional asymmetries in inflation dynamics. In one region the Phillips curve is purely forward looking, as in the standard New Keynesian models. By contrast, the rest of the Union is characterised by a hybrid Phillips curve. The authors show that the optimal price index target should give more weight to the sluggish component of EMU inflation. They conclude that, when there are important asymmetries in inflation dynamics across countries, the ECB's choice of a target for the Harmonised Index of Consumer Prices (HICP) is suboptimal.

In chapter 4, Fabio Bagliano, Roberto Golinelli and Claudio Morana provide econometric tools to analyse and forecast EMU inflation dynamics, starting from a small-scale cointegrated VAR system. In order to supply information on the long-run inflation trend, a forward-looking core inflation measure is

estimated, based on long-run relations among major macroeconomic variables. The proposed measure could provide a suitable inflation forecast for the ECB's monetary policy strategy.

Part II: Fiscal policies

In chapter 5, Roel Beetsma and Xavier Debrun provide an overview of recent research on the interactions between monetary and fiscal policy in the EMU. The literature centres on two main issues: (i) how fiscal discipline affects the credibility of monetary policy in a monetary union and (ii) the role of fiscal policy in the stabilisation of (asymmetric) shocks, given that monetary policy can only be used to stabilise union-wide disturbances. The authors also discuss the institutional arrangements designed to deal with discipline and stabilisation problems, reviewing both existing arrangements and proposals for alternatives.

In chapter 6, Luca Lambertini and Riccardo Rovelli consider a model with three players: the ECB and two national fiscal authorities (FA). No player has incentives to engage in time-inconsistent behaviour. The model therefore focuses purely on stabilisation policies. The authors argue that fiscal coordination is welfare enhancing, provided that the FAs internalise the price stability objective. However, incentives exist for each FA to deviate from cooperative agreements. As a result, the authors envisage a role for a supranational fiscal institution that should discipline the behaviour of national FAs.

In chapter 7, Luca Onorante adopts a similar modelling strategy, where the ECB is assumed to be relatively more inflation averse than national FAs. His contribution explores the details of fiscal–monetary coordination when each FA is imperfectly informed about cyclical conditions abroad. Although the sharing of information is generally welcomed by economists, the author shows that this is not the case when the FAs act as a Stackelberg leader *vis-à-vis* a conservative ECB. He argues that a mix of informal coordination (i.e. exchange of information) and binding rules best preserves the objective of long-term price stability.

In chapter 8, Campbell Leith and Simon Wren-Lewis simulate a two-country dynamic model, where fiscal policies are decentralised and a single Central Bank controls monetary policy. The purpose is to examine how the speed of debt stabilisation of each member state affects the ECB's ability to control inflation. It is shown that the speed of fiscal adjustment, even when it is asymmetric across EMU members, has little impact on the ECB's ability to control inflation. Of far greater importance is the inflationary impact of shocks when the degree of price stickiness varies across EMU member states. Simulations suggest that incentives may exist for economies with little nominal inertia to

require structural reforms in less flexible economies, whose slow adjustment can have adverse consequences for the rest of the Union.

The last two contributions in this part of the book are empirical and dwell on a largely unexplored area of research, offering interesting insights into the actual conduct of fiscal policies in the pre-EMU era. Both apply structural vector autoregression techniques.

In chapter 9, Giuseppe De Arcangelis and Serena Lamartina analyse the conduct of fiscal policies in a number of OECD countries. They identify the fiscal policy rule followed in each of these countries, that is, they test whether tax decisions have preceded (different types of) expenditure decisions or vice-versa. More specifically, they find that in France and Italy, unlike Germany and the USA, government expenditures on wages and transfers have been the driving force behind the tax increases which characterised these countries. Furthermore, they measure the impact of different fiscal shocks on national outputs, finding that an increase in government expenditure on wages and transfers has a positive, but small, effect on output; a decrease in the tax rate has a positive, but only short-lived, effect on economic activity.

In chapter 10, Anton Muscatelli, Patrizio Tirelli and Carmine Trecroci present an empirical analysis of the interaction between fiscal and monetary policies as well as their interactions with output and inflation. This provides a benchmark for assessing the empirical relevance of new theories of the interdependence between fiscal and monetary policies. There is almost no empirical evidence to date on fiscal–monetary interdependence, so this contribution fills an important information gap in the policy debate on EMU. In general, the authors find that the interaction between fiscal and monetary policy has varied considerably over time, with fiscal policy becoming less concerned with short-term stabilisation goals in the post-Maastricht era. In addition, monetary and fiscal policies seem to have become less divergent since the 1980s.

Part III: Labour markets

In chapter 11, Alex Cukierman surveys recent developments regarding the strategic interaction between trade unions and the central bank. An important message from this literature is that monetary regimes affect both nominal and real wages when unions have at least some market power. This issue is obviously relevant for EMU, where collective agreements cover a large fraction of wage settlements. In this regard the author discusses some recent attempts to identify the impact of monetary unification on national labour markets.

In chapter 12, Lilia Cavallari explores the impact of monetary unification on national labour markets. She finds that monetary union may discipline workers and reduce unemployment when wage setters have market power. She also shows that this leads to higher union-wide inflation, unless wage setting is

coordinated across the union's members. A novel feature of her contribution is the use of explicit microfoundations for the macroeconomic model, following the new literature on open economy macroeconomics.

In chapter 13, Andrew Hughes Hallett and Svend Hougaard Jensen study the incentives to enlarge a monetary union under alternative assumptions about the extent of market reform conducted within the union and in candidate countries. It turns out that candidate countries that have a preference for greater labour market flexibility would prefer to join EMU only after more reforms have been undertaken within the pre-existing union. The opposite holds for candidates that are less reformed than the pre-existing union. The chapter has important implications for the future membership of EMU and for the incentives for labour market reform in the Union as issues such as EU enlargement are confronted, and countries such as Sweden, the UK and Denmark contemplate joining EMU.

Part I

Monetary policy

1 The European Central Bank: a view from across the ocean

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As I write, the European Central Bank approaches its third anniversary of operational responsibility for the monetary policy of the Eurosystem.[1] The thousands of people involved in coaxing this new institution into existence have done an extraordinary job. Against formidable odds and the dire predictions of numerous observers, their insights and hard work have manufactured an extraordinary product. I am in awe of the job that has been done in Frankfurt by the Executive Board and the staff of the ECB itself, and by the governors and staffs of what today are twelve national central banks (the NCBs) who have joined the European Monetary Union. The real measure of the success of the European System of Central Banks (ESCB) is how truly minor all of our criticisms are. I seriously doubt that any of us could have done better.

In this chapter I will comment on a number of aspects of the ESCB. Throughout I will try to provide comparisons with the structure of other central banks, especially the Federal Reserve System. I begin with a discussion of institutional structure, followed by a critical examination of the Eurosystem's 'two-pillar' policy strategy. I then discuss issues of communication and transparency, followed by a very brief examination of policy performance and a conclusion that describes some future challenges.

1 Institutional structure

Economists often ignore one of the central precepts of other social science disciplines: institutional structure is crucial for policy outcomes. The design of the ESCB embodies the received wisdom of a century of monetary policy-making. The lessons of history are numerous, and they have all been absorbed. For example, operational policy of the Eurosystem is centrally controlled – a lesson the Federal Reserve System did not learn until the 1930s. Care has been taken to ensure that the ECB is independent from political influence, thereby

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[1] I have adopted the nomenclature described in European Central Bank (2001).

avoiding problems that plagued the monetary policy of industrialised and emerging countries alike in the post-war period.

On its surface, the ESCB resembles the Federal Reserve System (FRS). There are twelve regional banks with a central board. But there are important differences. In the Federal Reserve System there is a sense in which the Board of Governors is in control. At the ECB, casual observation suggests that the reverse is true. While the Board of Governors supervises the regional Federal Reserve Banks, approving their budgets and overall management decisions, in the ESCB it is the NCB governors who supervise the ECB.

The Governing Council of the ECB resembles the Federal Open Market Committee (FOMC) on the surface as well. The former is composed of the six members of the Executive Board and the governors of the euro area NCBs, and the latter includes the seven governors of the Federal Reserve Board (the Governors) and the twelve regional Federal Reserve Bank presidents (the Presidents). Both formulate monetary policy.

But again, appearances can be deceiving. While decisions in both bodies appear to be taken by consensus, as a technical matter only five of the Reserve Bank presidents vote at any one time. This means that the Governors always comprise a substantial majority and can outvote the Presidents. In Europe, the claim is that the Governing Council does not take formal votes, but even so the NCB governors outnumber the Executive Board members by two to one.

In my view, the most important difference between the FRS and the Eurosystem policymaking procedures arises from the fact that all of the information provided to the FOMC comes from the staff of the Board of Governors. There is virtually no relevant information that either comes or is produced in consultation with the staffs of the regional Federal Reserve Banks that finds its way into the hands of all of the participants at an FOMC meeting. In my experience, the only information to be universally distributed was generated by the Board of Governors in Washington DC. The ESCB has an elaborate committee structure that was created to ensure that information from the NCBs had a natural and straightforward way to enter into the policymaking process. This means that economic forecasts, for example, are constructed with explicit input from the staffs of all of the central banks in the Eurosystem.

Beyond the frequency of the policy meetings (the Governing Council meets three times as often as the FOMC), they also differ substantially in attendance. As I understand it, the Governing Council meets alone (with the exception of someone charged with recording minutes). By contrast, FOMC meetings include between twenty and thirty staff members as well as the nineteen principals.[2] Each Reserve Bank President has one staff member present, and a number of members of the Federal Reserve Board staff are in attendance as well.

[2] For a description of the mechanics of FOMC meetings see Meyer (1998).

Furthermore, at FOMC meetings the staff participates actively. But again, it is primarily the staff of the Federal Reserve Board that does the talking. With the exception of the System Open Market Account Manager, who is an employee of the Federal Reserve Bank of New York, in my two years attending FOMC meetings I never heard any staff member of a Reserve Bank speak. Only Federal Reserve Board staff spoke.[3] This, along with the fact that the Governors speak among themselves about policy, serves to further increase the influence of the Board members over the policy outcomes.

There is one more important difference between the FRS and the ESCB: the ECB is a bank while the Board of Governors is not. As a consequence, the ECB itself is capable of operating in financial markets – and it has done so. Surely, the ESCB structure is set up to ensure that the bulk of operations take place at the NCBs. In many ways, this is the remaining role of these satellites of the ESCB system. But how long can a system be maintained that has (currently) thirteen separate operating locations, each with nearly the same capability?

The logic of having NCBs maintain regular financial operations is that these central banks have special knowledge of the mechanisms and participants in their local national markets. But since one of the major goals of monetary union is to accelerate the development of a pan-European financial system, it is just a matter of time before things are centralised. There will be an inexorable pull towards the centre, draining resources and power from the periphery.

A number of observers have noted the potential problems created by one country/one vote on the Governing Council.[4] This creates an inexorable pull toward the median country, and could compromise the objective of stabilising euro-area prices. Both von Hagen and Brückner (2003) and Alesina et al. (2001) suggest that, if this were the outcome, the Executive Board would not be doing its job. The majority of the evidence clearly suggests that the Governing Council is following its mandate, and not behaving in a nationalistic way.

2 Policy objectives and policy strategy

There are numerous detailed descriptions of ESCB policy strategy and the problems it has created.[5] As mandated in Article 105(1) of the Maastricht Treaty, 'the primary objective of the ESCB shall be to maintain price stability' and the

[3] Meyer (1998) confirms this.

[4] Allowing for each EMU country to have a vote on the ECB Governing Council will eventually create an additional problem as the number of countries participating in monetary union grows. With twelve countries in EMU there are eighteen voting members of the Governing Council. Without any change in the voting rules, and if countries joining the European Union become members of the Eurosystem, this number could potentially become much larger, thereby hampering the ability of the Council to arrive at consensus decisions.

[5] For a description of the strategy see European Central Bank (2001). The difficulties are discussed in von Hagen and Brückner (2003), among others.

ESCB shall 'without prejudice to the objective of price stability, . . . support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community', including 'a high level of employment . . . substantial and non-inflationary growth, a high degree of competitiveness and convergence of economic performance'. This is what Federal Reserve Board Governor Laurence Meyer has called a *hierarchical objective* – price stability first, other things second.

Implementation of monetary policy required that the Governing Council define what is meant by the term *price stability*, and that it formulate a policy strategy. An 18 October 1998 press release entitled 'A stability-oriented monetary policy strategy for the ESCB' provided important operational details as to how this objective would be addressed. That press release (which is available on the ECB's website at http://www.ecb.int) stated that the policy strategy would have the following three components:

1. The operational definition of price stability would be inflation in the Harmonised Index of Consumer Prices (HICP) of less than 2% per year, in the medium term.[6]
2. Money would be assigned a prominent role in the evaluation of financial market conditions, and this role would be signalled by the announcement of a quantitative reference value for the growth rate of a broad monetary aggregate – they have chosen euro-area M3.
3. A broadly based assessment of the outlook for future price developments and the risks to price stability in the euro area would play a major role.

Let us take a look at each of these in turn. First, defining price stability in a clear quantitative manner is extremely difficult. Every inflation measure that we have available to us has its problems. They are all distorted by problems with weighting, with quality changes, with the introduction of new goods, with changes in expenditure patterns, and the like. The HICP has a particular problem in that it currently does not include owner-occupied housing. Given the high home-ownership rate in Europe, this is an unfortunate omission.

In looking at central bank strategies for achieving price stability objectives, the time horizon is often a subject of heated debate. Here, again, the ESCB has been criticised for its vague use of the phrase 'medium term'. My view is that this is not a serious issue. I agree with Mervyn King (1999), who argues that central banks with inflation objectives will ultimately be held accountable in such a way as to make the time horizon irrelevant. As King notes, if a central bank has a 2% target, then after ten years the question will be whether inflation averaged less than 2% over the entire period. The overriding issue is that longer

[6] The ESCB was criticised from various quarters for not stating that the operational definition was inflation in the HICP of between 0% and 2%. The suggestion was that somehow the current formulation left open the possibility of deflation. I view this criticism as inaccurate and generally unfair, as the term *inflation* clearly implies a positive value.

time horizons give somewhat more flexibility in responding to short-run real factors. Here, I believe the ESCB has done the right thing.

Let me digress briefly to note that, by comparison, the objectives of Federal Reserve System monetary policy are extremely unclear. The language contained in the Full Employment and Balanced Growth Act of 1978 currently guides monetary policy in the United States. It states there that the Board of Governors and the FOMC are required to 'maintain growth of money and credit aggregates commensurate with the economy's long-run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices and moderate long-term interest rates'. This has been interpreted to mean that monetary policy should foster maximum sustainable growth and price stability.

Importantly, though, there are no numbers attached to what is meant by any of this. Federal Reserve Board chairman Alan Greenspan has said, 'We will be at price stability when households and businesses need not factor expectations of changes in the average price level into their decisions.'[7] But this statement seems very imprecise. What level of what price index constitutes price stability? Different people will have different interpretations.

The lack of clarity in the objectives of the FOMC creates an enormous problem for decisionmaking. How can a committee agree on policy actions if they do not agree on their objectives even privately among themselves? Surely it would be a step in the right direction to follow the suggestion of Governor Meyer (2001) that the FOMC adopt an explicit definition of price stability and make it publicly known.

We now move on to the second two components of the strategy, often referred to as the 'two pillars'. These are the prominent role for money and the use of a range of indicators for future price developments. The first of these has come under substantial attack, and I will now join the chorus. As Alesina et al. (2001) write, the ultimate goal of the ESCB is to keep inflation low. In fact, they have been doing something that closely resembles inflation-forecast targeting. It is difficult to see in this context why M3 is special.

What is the logic of this first pillar?[8] I think that the best explanation is based on politics and sociology, not economics. When creating a new institution, constructive ambiguity is often essential. In the case of the ECB, no one really knew what was going to work, and so the Governing Council hedged by saying they would look at money on the one hand, and everything on the other. Beyond this, the difficulties of reaching consensus in a group of people with diverse backgrounds who have not worked together before was surely difficult, at least initially.

[7] See Greenspan (1994).

[8] In chapter 5 of European Central Bank (2001) there is a lengthy attempt to justify the two-pillar strategy on economic grounds. I find the discussion unconvincing.

But we are now three years on, and the same arguments no longer apply. Instead, we can think of the ECB as just another central bank that controls interest rates in an effort to meet an inflation objective. Money is surely helpful in doing this, but then so are many other things. I agree with those who have said that this first pillar stands in the way of effective communication.

Beyond these conceptual issues, it is worth noting that the first pillar of the policy strategy has already caused some technical problems. The ECB defines M3 to include only currency, deposits and marketable financial instruments held by euro area residents (European Central Bank 2001: 32–3). Needless to say, it is difficult to discern the ultimate owner of deposit accounts or liquid financial instruments, and so estimating the size of euro-area M3 is not a trivial task. This difficulty created substantial problems in the spring of 2001. In his news conference on 10 May 2001 ECB President Duisenberg stated that 'there have been indications that the monetary growth figures are distorted upwards by non-euro area residents' purchases of negotiable paper included in M3. This has now been confirmed by clear evidence, and the magnitudes involved are significant.'

All of this suggests to me that the ECB should discard the first pillar of its policy strategy. There is precedent for throwing central bank articulated ranges for money growth overboard. In the Federal Reserve Board's 20 July 2000 *Monetary Policy Report to Congress* there is a footnote that reads:[9]

> At its June meeting, the FOMC did not establish ranges for growth of money and debt in 2000 and 2001. The legal requirement to establish and to announce such ranges had expired, and owing to uncertainties about the behavior of the velocities of debt and money, these ranges for many years have not provided useful benchmarks for the conduct of monetary policy. Nevertheless, the FOMC believes that the behavior of money and credit will continue to have value for gauging economic and financial conditions, and this report discusses recent developments in money and credit in some detail.

This statement concisely summarises my own views, and leads me to the conclusion that the first pillar of the ESCB's monetary policy strategy should be jettisoned.[10]

Turning briefly to the second pillar, who can argue with the strategy of using a broadly based assessment of future price developments? Addressing uncertainties by bringing all possible information to bear – including that in broad monetary aggregates – is the obvious thing to do. Importantly, though, it leads to inflation-forecast targeting, and it would be helpful if the ESCB made it clear that this is what they are doing.

[9] This is footnote 2 in section 1 of the report. It is available on the Federal Reserve Board's website at http://www.federalreserve.gov/boarddocs/hh/2000/July/ReportSection1.htm:

[10] I would go even further and argue that the term 'monetary policy' should be changed to 'central bank policy' so as to change the impression that it has anything directly to do with money.

3 Communication and transparency

The next issue is communication and transparency. This is where the ESCB has, in my view, been at its worst. Let me give just one example from the spring of 2001. During March and April of that year there were numerous calls for policy easing. These came from places like the IMF, the OECB and the United States Treasury. Critics cited evidence of an impending slowdown in euro-area growth as the rationale for interest rate cuts. Initially, the ESCB responded that its objective was price stability, and inflation was in fact increasing. Its policy of maintaining relatively higher interest rates was consistent with this objective. As ECB President Wim Duisenberg famously said on 11 April 2001 'I hear, but I do not listen.'

On 10 May 2001 the Governing Council reduced the target-refinancing rate by 25 basis points, claiming that its long-term price stability objective was not in jeopardy. The stated reason for this policy reversal was that euro-area M3 had been mismeasured (see the previous quote). When the correction was made, and inflation forecasts were adjusted, the proper policy was to ease.

The ridicule was immediate and deafening. The *Financial Times* headline was the mildest: 'European central bank rate cut trips up markets.' Things only got worse, as one week later there was a report of a sharp rise in the euro-area inflation measure to a five-month high of 2.9% in April 2001, compared with 2.6% in March. The general reaction was that this surely wasn't consistent with HICP inflation of less than 2%.

What is it about the ESCB's communication strategy that has been such a failure? To understand, let us consider how an idealised central bank would communicate publicly. Blinder et al. (2001) argue that in creating transparent and clear communication a central bank must reveal

- what it is trying to achieve,
- the methods, data and models used for analysis,
- the substance of the policy deliberations, including which arguments have carried the day, how convincing they were and the degree of certainty surrounding current conditions.

I believe that on the first two of these, the ESCB has done well. It has been clear about what it is trying to do, and it has provided substantial insights into its data, models and forecasts. It is the third point, transparency of the substance of policy deliberations that is the source of the problems. Here, the Governing Council speaks in many voices, and they are occasionally at odds.

There are several possible solutions to this communication problem. Blinder et al. suggest shrinking the size of the Governing Council to reduce the likelihood of disgruntled members airing their disagreements in public. This is probably politically impossible. But why not issue minutes of meetings when they still matter?

4 Performance

Results are the real test of policy. Numerous people have examined the brief history of ECB policy in various ways. A decade ago John Taylor (1993) suggested the history of the US Federal Funds Rate could be adequately explained by a simple rule in which the policy rate depended on a long-run equilibrium interest rate, the deviation of inflation from a target level and the output gap. It has become very fashionable for academic researchers to compare actual interest rate paths to those implied by various version what are commonly called 'Taylor rules', and analysis of the ECB is no different.[11]

Such exercises conclude that interest rates were initially too low, and later were too high. I would ask whether it is possible to actually evaluate policy using such an exercise. If the rule had been followed at the beginning of the period, then inflation and growth would have been different later. This is obvious, and what it means is that you cannot look at the actual policy relative to a Taylor-style rule without embedding the rule in a fully articulated dynamic structural model of the euro area.

Originally, Taylor viewed this as a way of summarising policy history, not as a prescription for future action. In recent years, researchers and policymakers have taken this rule and examined its properties for policymaking. Such exercises must be done with great care, however. In particular, evaluation of the rule can only be done if it is embedded into a dynamic model of the economy as changes in the interest-rate instrument that deviate from historical experience will drive inflation and output away from their historical paths as well.

Rather than build such a model (or borrow one) I will simply look at the performance of the ESCB since its inception. Figures 1.1 and 1.2 plot GDP growth and inflation in the euro area. Growth data begin in 1992 and inflation data in 1996 – this is what is available from Eurostat and the ECB. It is surely difficult to tell from these data what the consequence of recent policy will be, but we can nevertheless make a preliminary evaluation. The results give the impression that policy has been more successful in fostering steady growth than in keeping inflation in check. The fact that HICP inflation has risen unabated since the ESCB started on 1 January 1999 is somewhat troubling, and provides support for the von Hagen and Brückner conclusion that policy was too loose early on. It is harder to argue that it became too contractionary, as inflation has continued its rise.

5 Future challenges

The report so far is of a new institution that has faced numerous challenges head on and emerged only mildly bruised. It is difficult to see how things could have

[11] See, for example, von Hagen and Brückner (2003).

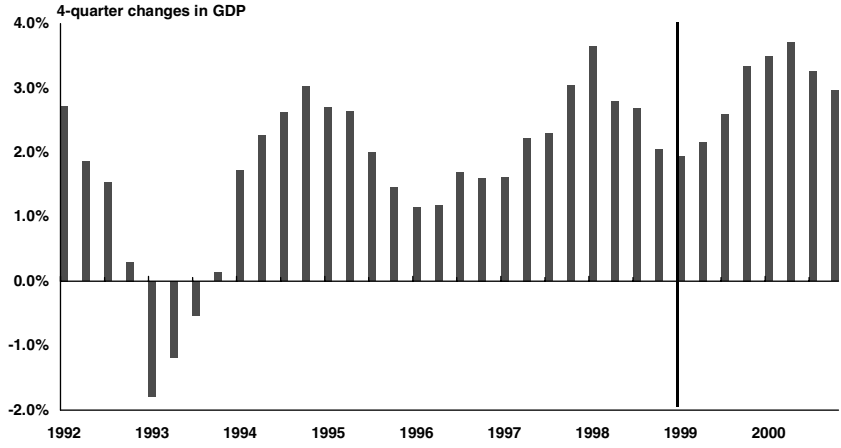

Figure 1.1 Real GDP growth in the euro area

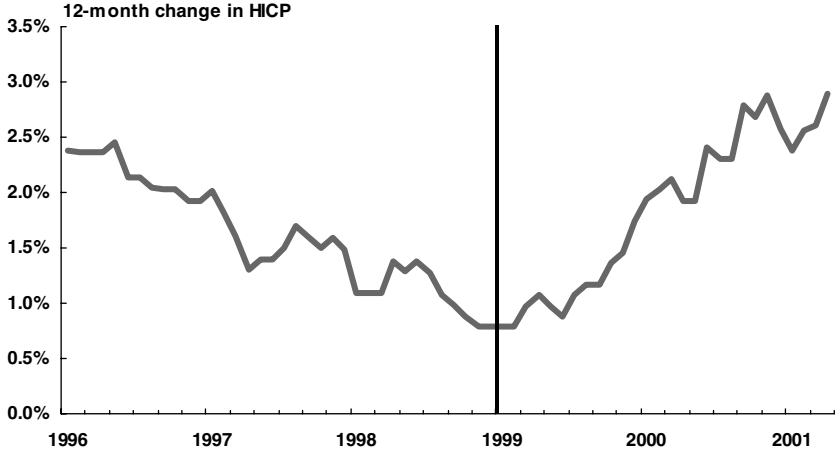

Figure 1.2 Inflation in the euro area

turned out any better than they have. But this is not the end of the story. The future challenges of the ESCB are nearly as daunting as those that have passed.

The biggest problem facing the ESCB is dealing with what is likely to be a constant conflict among national interests in policy setting. Recent reports have suggested that the right policy for Germany is more stimulus, while France might be better off if policy were tighter.[12] Inflation and growth differentials

[12] See 'The Right Rate for Europe?', *Wall Street Journal*, 17 May 2001, p. A18.

across the euro area will continue and create the need for a delicately balanced policy.[13]

The problem of national inflation differentials is compounded by the fact that, as Alesina et al. (2001) emphasise, not all inflation differentials are bad. During the early years of currency union and general economic harmonisation one can expect that there will be substantial relative price adjustments among the various regions of the euro area and that these will show up as measured differences in national inflation indices. But in many cases these will be required real economic adjustments, not inflation differentials creating policy problems.

In writing this chapter I have joined the nearly continuous stream of observers commenting on the performance of European Monetary Union. But in the end, I am reminded of a story that is told about a meeting in 1972 between US Secretary of State Henry Kissinger and Chinese Prime Minister Chou En Lai. According to the story, Kissinger asked Chou if he believed that when all its consequences were taken into account the 1789 French Revolution benefited humanity. Chou is reputed to have replied 'It is too early to tell.'[14] So too for the early years of the European System of Central Banks – it is still too early to tell.

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[13] See Cecchetti, Mark and Sonora (2002) for a discussion of how persistent inflation differentials are likely to be.

[14] Unfortunately, I have not been able to find any reliable source for this exchange, which may well be apocryphal. It is, however, a good story.

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2 Which measure of inflation should the ECB target?

C. A. Favero

1 Introduction

The ECB has intepreted its mandate for price stability as keeping the inflation of the Harmonised Index of Consumer Prices (HICP) between 0 and 2% per year, in the medium term. Price indexes such the HICP for the euro area are constructed to measure the cost of living and are not necessarily the best target for monetary policy. Two contributions in this part of the book deal with the measure of an appropriate inflation target for the ECB. I shall introduce the issue by first reviewing three years of ECB activity, as seen and judged by different groups of academic ECB watchers. The evidence shows that the uncertainty surrounding estimated econometric relationships is rather high, so high that it is very hard to extract from the data an assessment of the consistency between the deeds and the words of the European Central Bank. In fact, despite its apparently tight formulation, the mandate of the ECB, interpreted in the light of the uncertainty surrounding those relationships among the data relevant to the application of such a mandate, leaves plenty of room for flexibility. In other words, the fact that inflation has been above its target for more than twenty-four months since January 2000 does not lead to the rejection of the null hypothesis that the ECB has not violated its mandate. Some watchers have proposed to deal with uncertainty by choosing inflation of less volatile indexes. Others have proposed to use uncertainty and target aggregates other than the HCPI, with weights chosen optimally for monetary policy purposes rather than for statistical purposes.

The empirical evidence leads naturally to the question, 'Is there an optimal price index for monetary policy?' There are many things that the ECB can do. Given room for manoeuvre, it is important to establish a benchmark for the optimal price index for monetary policy and evaluate the difficulties in its empirical implementation. I would like to put the two other contributions of this section in this general framework. Therefore, I shall use a model by Mankiw and Reis (2002) to set the scenario within which discuss the proposals made by Benigno and López-Salido and by Bagliano, Golinelli and Morana in the two subsequent chapters.

2 Objective and strategies of the ECB: the mandate

Article 105(1) of the Maastricht Treaty states that the primary objective of the ESCB is to maintain price stability: 'without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community', including 'a high level of employment . . . substantial and non-inflationary growth, a high degree of competitiveness and convergence of economic performance'.

By definition, price stability means zero inflation. However, the Maastricht Treaty does not specify which price index is the relevant one for monetary policy. In a press release of October 1998 entitled 'A Stability-Oriented Monetary Policy Strategy for the ESCB' all the relevant operational details are provided. The ECB policy strategy has the following three main components:

- The operational definition of price stability is inflation of the Harmonised Index of Consumer Prices (HICP) between 0% and 2% per year, in the medium term.
- The first pillar of the ECB monetary policy strategy is money: a quantitative reference for the growth rate of M3 has been set at 4.5% and kept at that value until the time of writing this chapter.
- The second pillar of the monetary policy strategy would be a broad based assessment of the outlook for future price developments and the risks to price stability in the euro area would play a major role.

The target is then specified very strictly and the strategy is very tightly defined.

3 Objective and strategies of the ECB: the data

In spite of the interesting story about the 1972 meeting between Henry Kissinger and Chou En Lai mentioned by Stephen Cecchetti on page 18 above, I believe it is important to look at the actual data over the period 1999–2002 and evaluate them against the apparently strictly stated ECB mandate. Figure 2.1 shows the annual rate of growth of HICP, the annual rate of growth of M3, and the EONIA, the euro-denominated overnight interest rate, all data being measured at monthly frequency.

The facts are that over the period in which the ECB has been operating HICP inflation has been above target for well over two years after January 2000, the annual rate of growth of M3 has never been below the reference value, the correlation between money growth and inflation has been −0.26, while the correlation between the policy rate and inflation has been of 0.87.

These facts have been the focus of the work of ECB watchers during the ECB's first three years. The CEPR watchers in 2000 (Favero et al. 2000) looked

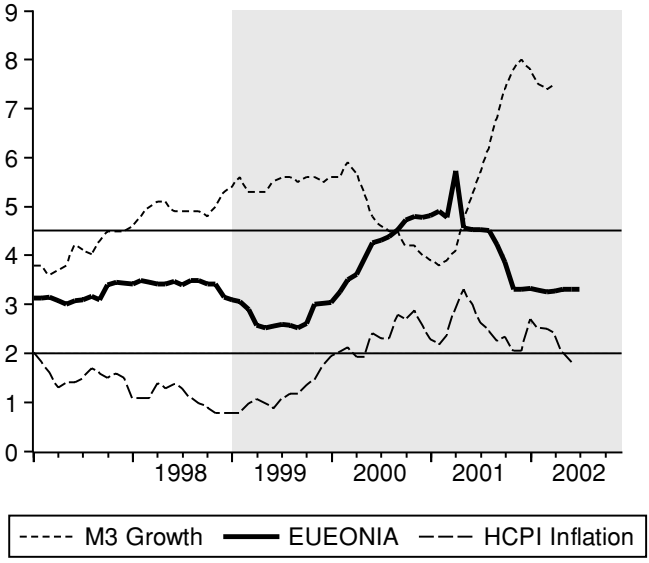

Figure 2.1 Annual rate of growth of HICP, M3, and the EONIA

at ECB behaviour in 1999 by simulating different Taylor rules and found that the reaction of the ECB to the Euro-wide one-year-ahead expected inflation and output gap was not statistically different from what the Fed or the Bundesbank would have done if faced with the same macroeconomic conditions. However, the data were also consistent with monetary targeting. Interestingly, the worst performing rule was one based on giving different weights to macroeconomic conditions in different countries. However, even the data counterfactually simulated from the worst performing rule were not outside the 95% confidence interval of the baseline simulation. The watchers concluded that '. . . on the basis of deeds and words to date, it is extremely hard to judge what kind of animal the ECB is . . .'

The ECB watchers of 2001 (Alesina et al. 2001), with one more year of available data, observed that a hybrid rule with the Central Bank responding quite aggressively to both core inflation and the inflation forecast (both expressed in deviation from a target of 2% and both receiving equal weights) could track closely ECB interest rate decisions. Neither the output gap nor money growth played any role in the preferred rule to explain ECB behaviour. In fact when discussing the M3 pillar the CEPR watchers did not lose the opportunity of quoting from Lars Svensson (Alesina et al. 2000, p. 97) 'the first pillar is actually a brick'.