

Stability, asymmetry and discontinuity: the outset of European Monetary Union

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1. Introduction

Not even one year old, European Economic and Monetary Union (EMU) is already under trial. The accusations are, at least, three. Europeans were promised a strong currency; but within seven months of its birth the euro lost 13.5 percent of its value against the dollar. The markets find the signals from the new monetary institutions confusing and inconsistent, while a scarcity of relevant information - ranging from delays in releasing reliable euro area-wide statistics to lack of access to the deliberations of the Governing Council - makes it difficult to forecast future economic developments and understand the policy conduct of the European Central Bank (ECB). The new policies are said to be responsible for widening the gap between the fast-growing periphery and the slow-moving core of the euro area, exacerbating regional asymmetries and

validating the presumption that costs and benefits from monetary cohabitation are unfairly distributed among small and large member states.

In this paper, we espouse a rather different thesis. In terms of its impact on the process of financial market integration and the ability of its institutions to cope with cyclical contingencies, EMU is performing well above expectations, even though persistent asymmetries represent a threat to the ability of the new policy framework to guarantee economic stability and promote further integration in Europe. It is clearly premature to even attempt a first assessment of the new European monetary architecture - it will take quite a few years before the track record of the ECB becomes sufficiently long and rich for such an evaluation. This paper is instead devoted to the more sensible task of opening a window on early developments in the euro area and highlighting their potential implications for the future of EMU, surveying the main points in the current debate, recording contrasting positions, and evaluating them in light of the available evidence. Our synthetic but comprehensive overview of the first few months in the life of the euro is thus aimed at disentangling facts, empirical evidence, and institutional details, that we consider useful towards a balanced interpretation of the current monetary and financial evolution in Europe.

The text is organized as follows. Section 2 casts the analysis of the swift launch of the euro in the context of the macroeconomic convergence and integration that took place in Europe following the 1992-93 crisis of the European Monetary System (EMS). Sections 3-4 provide a discussion of the monetary strategies of the European System of Central Banks (ESCB), reviewing the official positions taken and the main criticisms leveled in the recent debate. Section 5 focuses on the instruments of monetary policy in the euro area. Liquidity management and money market integration are the subject of Section 6. The following three sections present an update of developments in the bond and equity markets and a preliminary assessment of public debt management strategies by the 11 independent sovereign states coexisting in the euro area. Section 10 deals with issues remaining open in the euro area banking sector. Section 11 comments on the behavior of the euro in the currency markets. Section 12 analyzes asymmetries across European regions and their implications for centralized monetary policy. Section 13

reviews the process of fiscal consolidation and the debate on the code of budgetary discipline in Europe. Section 14 concludes.¹

2. The launch of the euro in historical perspective

From a technical viewpoint the euro was born on December 31, 1998, the point of official determination of fixed conversion rates among euro area currencies - thus the demotion of national currencies to non-decimal denominations of the new currency² - and the start of the changeover weekend, during which clearing and settlement systems were retooled and trading positions and accounts redenominated from old currencies into euros. The euro's birthday was almost a non-event. Even the ECB President Wim Duisenberg felt compelled to observe that the decision "turned out to be almost a formality - different from what many of us might have expected barely a year ago."³

What could have gone wrong at the start? As established by the Madrid European Council of December 1995, the euro replaced the European Currency Unit (ECU) at the rate of one euro for one ECU. Thus, the value of the euro coincided with the value of the basket of currencies in the ECU, valued at market rates on December 31, 1999. Now, with the goal of providing a clear signal to the markets, bilateral parities for the 11 currencies in the euro had already been set and announced on May 1998, after the determination of the initial members of the EMU. In the few months before the take-off of the EMU, some commentators had expressed concern over the possibility of divergences between the pre-announced rates and market rates, reflecting speculative attacks and/or insufficient monetary cooperation among national central banks.⁴

Also, during the conversion weekend the complexity of the operations and the tight time-table to complete the retooling process (from the fixing of euro rates announced at 1:30 p.m. on December 31, 1998 to the opening of the markets on January 4, 1999) represented a potential

source of system-wide risk. EU contingency plans had been designed to deal with possible market anomalies, ranging from the authority to exclude unprepared agents from market operations to the introduction of special monetary policy procedures.⁵ But contrary to the prognostications of euroskeptics, the outset of EMU was almost glitch-free. The euro currencies remained closely aligned for months, making the December 31 fixing a mere validation of the status quo. No contingency plan was activated. The new payments system of EMU, TARGET,⁶ exhibited from the very start a high degree of technical reliability.⁷

What is truly remarkable about the birth of the euro is not only the smoothness of the delivery, but also the fact that its eight-year gestation largely followed the time-table and modalities agreed upon in December 1991 in Maastricht. Recall that, just a few months after the drafting of the Maastricht Treaty, the EMS suffered its deepest and longest crisis, generating widespread skepticism about the prospects for European policy cooperation and monetary integration.⁸ At the time, many believed that the EMU project would be postponed, or at best start as a greater D-mark area, even doubting the participation of France. In historical perspective, the odds for a successful achievement of EMU were largely set by the policy and institutional response to the 1992-93 crisis.

The 1992-93 EMS crisis was rooted in an unresolved policy conflict between Germany and the rest of the system on how to deal with growing price and output asymmetries - both related to the shock of German unification and the cumulative effect of persistent inflation differentials on intra-European cost-competitiveness. The crisis shattered all remaining enthusiasm for the fixed exchange rate policies that had supported the concerted European disinflation efforts in the 1980s (essentially a process of “borrowing credibility from the Bundesbank” through exchange rate targeting), and were supposed to provide the monetary framework up to the introduction of a common currency. As was put at the time: “fixed exchange rates now seem much less effective as means to price stability than many of us thought before. Therefore, *monetary stability and credibility has to be built at home with other means*”.⁹

For some of the countries that were left out or decided to stay out of the Exchange Rate Mechanism of the EMS, building stability and credibility at home meant, in addition to fiscal rectitude, a reform of monetary policy signaling some radical break with the past. For instance, the Bank of England and the Bank of Sweden adopted inflation targeting as a new comprehensive strategy to stabilize prices. The other European countries were *de facto* freed from the corset of the Exchange Rate Mechanism in August 1993, once the bands around central exchange rate parities were widened up to 15% in either direction. What constituted a departure from the past was a stronger domestic political consensus to participate in EMU, and therefore to fulfill all the formal prerequisites established in the Maastricht Treaty.¹⁰ These prerequisites included complying with the convergence criteria of the Treaty in terms of inflation, fiscal stance, and interest rates,¹¹ as well as appropriate reforms to prepare central banks to be integrated into the new European system.

So, while for the first group of countries the crisis led to largely new policy strategies, the countries in the second group, over time, succeeded in confirming their political commitment to the Maastricht model of monetary integration through macroeconomic convergence. Within this framework, national monetary strategies during the transition to EMU exhibited some country-specific differences. Austria, Belgium, Denmark, the Netherlands, and to some extent Ireland and Portugal, retained an exchange rate orientation; France, Italy and Greece adopted some form of monetary targeting together with Germany; Spain opted for inflation targeting. Fiscal policy also diverged but, in spite of the fact that most countries adopted some cosmetic and temporary measures to pull the deficit below the formal 3% limit established in Maastricht, the European fiscal stance did show some fundamental improvement in these years.

Since participation in EMU was conditional on having already achieved low inflation, financial and exchange rate stability, and low deficits, the convergence process was designed to enhance macroeconomic policy *continuity* at the birth of the euro. Whether by means of convergence policies or not, macroeconomic stability was reached in Europe well before the formal launch of the euro. National inflation rates were already extremely low in 1997. Notably, the Asian and

Russian crises in 1997-98 did not induce any significant speculative wave in European financial and currency markets. A common monetary policy *de facto* preceded the birth of the common currency, as the ECB, established in June of 1998, engineered a coordinated cut of interest rates in December 1998 by all national central banks to the common level of 3 percent (with the only exception of Italy, which cut its rate to 3.5 percent).

The Eurosystem¹² was structured to guarantee as much continuity as possible with respect to the objectives and policy framework of those national central banks (NCBs) that had been most successful in the past, notably the German Bundesbank. Perhaps, continuity with the Bundesbank was seen as key to endow the newly created ECB with an anti-inflationary reputation: at the birth of the euro European countries were, more than ever before, “borrowing credibility from the Bundesbank”. At the same time continuity was seen as a way to reassure the German public, who up the end were reluctant to give up the D-mark.

Not surprisingly, objections to continuity are at the heart of the current debate on the ECB. The critics emphasize that European policy makers are missing an opportunity to build a monetary policy framework suitable for Europe on its own merits, rather than on the merits of the institutions (such as the Bundesbank or any other NCB) that have adopted it in the past. Given the political dimension of European integration, most critics focus on the standards of transparency and accountability of the ECB. In some cases, the ECB is urged to change its strategy by moving towards explicit inflation targeting - a move that would reduce the distance with the EU countries so far outside of EMU. Yet, considerable uncertainty remains about the monetary architecture that will actually emerge in Europe as a result of the regime shift associated with a switch to a common currency. The next two sections are devoted to these issues.

3. The stability-oriented monetary strategy according to the ECB

As a starting point for assessing critical views on monetary strategies in the euro area, we begin with a detailed overview of the ECB's own account. At the beginning of the 1990s, the Treaty of Maastricht stated that "price stability" is the primary objective of the ESCB and established that the ESCB is expected to support the general policies in the EU (Art. 2) as long as this can be done without prejudice to its price stability objective (Art. 105(1)). For a quantitative definition of what "price stability" means, one had to wait until October 13, 1998, when the Governing Council of the ECB officially announced its monetary strategy. The definition of price stability is a year-on-year *increase* in the Harmonized Index of Consumer Prices (HICP, essentially a CPI without interest costs) for the euro area as a whole of *below 2%*, which is to be maintained over the *medium run*. The focus on the euro area as a whole implies that sector- or region-specific shocks will be considered only insofar as they provide information on the development of the aggregate HICP. The word "increase" in the definition suggests that the ECB is concerned with a "downward risk for price stability". Thus, any inflation rate in the range 0-2% seems to be compatible with price stability, although a precise lower bound has not been officially announced.¹³ Incidentally, the choice of 2% as the upper boundary of the range can be justified mainly on grounds of continuity, being the value that has been used in the past by the Bundesbank.¹⁴

The reference to the *medium run* acknowledges that monetary authorities might be unable to control short-run price variability. In particular, in the presence of shocks threatening price stability, "a medium run orientation (...) is important in order to permit a gradualist and measured response".¹⁵ Interpreting the remark in light of the experience of the Bundesbank seems to suggest that the ECB may show some flexibility in letting inflation rise temporarily above 2%, say, when the economy is hit by a supply shock. Perhaps to rule out expectations that any development of prices outside the range 0-2% would automatically entail a policy response, the ECB has stressed that its quantitative definition of price stability is not an inflation range

target. Indeed, the definition of price stability by the ECB differs in two ways from an inflation target as usually understood: first, it is time- and state-invariant; second, its time horizon, the medium run, is not precisely quantified. Yet, note that the announcement of “an objective benchmark” for the rate of inflation in the medium run is presented as “the most important step [taken by the ECB] to achieve accountability.”¹⁶

In addition to the quantitative definition of price stability, the monetary strategy of the ECB consists of two “pillars”: a reference value for the growth rate of M3, and a broad assessment of the outlook for future price developments and the risks to price stability. The reference value for the annual growth rate of M3, according to the ECB, is not to be considered a target - but a “realistic alternative to a monetary target.”¹⁷ That is to say, a “deviation of current monetary growth from the reference value would, under normal circumstances, signal risks to price stability”, and prompt further analysis to identify and interpret the economic disturbances that caused the deviation. However, no automatic policy reaction should be expected when the actual monetary aggregate deviates from its reference value.

The ECB has chosen to announce a single reference value for M3 growth (4.5 percent), rather than a range as in the tradition of the Bundesbank. The calculation of the M3 reference value follows instead the German tradition, that is - as put by Rick Mishkin - a very public exercise.¹⁸ Upon its announcement, the 4.5 percent reference value was explained using a quantity-equation framework,¹⁹ together with estimates of the medium-run rate of change in velocity (in the range of -.5% to -1%) and trend output growth (in the range of 2% to 2.5%). Under these assumptions, the annual increase in the HICP associated with a 4.5% growth rate of M3 is in the range of 1 to 2 per cent. Similarly to the Bundesbank, the ECB uses trend GDP growth, instead of GDP growth forecasts, with the objective of distancing its policy from short-run considerations of employment and cyclical conditions. This practice allows for stabilization: other things being equal, the reference value allows for the provision of more liquidity during recessions, and less liquidity during periods of overheating.²⁰

Judging from the first few issues of the ECB monthly bulletin, the second pillar amounts to an analysis of a rather large list of indicators of unequal status and nature.²¹ The vagueness in the definition of the second pillar raises the critical question as to which analytical framework - i.e. which economic and econometric model - the ECB will use to filter the available information from such a diverse set of variables. What is stated in this respect is that the Eurosystem “will evaluate the full range of inflation forecasts produced by international organizations, other authorities, market participants, etc, and will also produce its own assessment of the future inflation outlook.”²² But, at least so far, the ECB has not been willing to publish its forecasts, and has virtually declined to discuss how it reads third-party forecasts in formulating its strategy.²³

This attitude towards inflation forecasts exhibits a striking resemblance to the Bundesbank’s, whose monthly and annual reports neither publish forecasts of economic variables, nor discuss private sector forecasts.²⁴ The ECB explains its decision not to publish its inflation forecasts by arguing that giving prominence to a single official forecast would not adequately reflect the actual decision-making process of the Council, and would ultimately confuse and mislead the public.²⁵ It is plausible that, especially in the initial phase of EMU, the ECB does not want to be evaluated as a forecaster and held responsible for forecast errors, given the considerable uncertainty about the time series properties of the relevant real and financial variables, nor to be tied to any particular econometric model. If this interpretation is correct, it may be possible that, in the future, the ECB will consider some form of public discussion of inflation forecasts, without necessarily implying a formal change in its strategy.²⁶

We conclude by noting that, shortly before EMU, German central bankers suggested that the ECB should combine elements from both monetary and inflation targeting: “this would place the ECB under a double obligation to justify its action. It would have to explain its policy to the public in terms of both its monetary target and its price expectations. Comprehensive transparency of this kind might assist in rapidly establishing the credibility that is needed for a successful monetary policy.”²⁷ While the “two pillars” in the new monetary framework seem to

reflect the suggestion to combine elements of both monetary and inflation targeting, it is worth emphasizing that in its strategy the ECB eschews the notion of targets per se.

As regards transparency and accountability, the president of the ECB holds a press conference immediately after the first meeting of the Governing Council²⁸ every month, providing an extensive statement of the Council's analysis and deliberation. The analysis and data in the ECB Monthly Bulletin, as well as speeches by members of the ECB Executive Board, are also meant to supplement the president's statement. The ECB however does not publish the (unattributed) minutes of the meeting, claiming that the press conference by the president after each meeting does *de facto* provide all relevant information - a claim contested by some ECB watchers.²⁹ By the same token the voting records are kept secret, so that no public statement exists on whether a monetary decision has been taken unanimously or not. This feature largely conforms the model of "collective responsibility" - formally excluding any account of internal disagreement - that characterizes the history of the Bundesbank.

An annual and four quarterly reports on the activities of the Eurosystem are submitted to the Council of Ministers, to the Commission of the European Communities, and to the European Parliament (EP) which then holds a general debate on the findings. Members of the executive board of the ECB deliver testimony to the committees of the EP, either on their own initiatives or on the initiative of the EP. An open issue is to what extent the EP will be willing to exercise its powers, for instance by putting pressure on the ECB to provide more information about its decision-making process.³⁰

4. Issues in the implementation of the Eurosystem strategy

Over the short history of EMU the correspondence - or lack thereof - between actual monetary policy and the announced monetary framework has been the object of extensive scrutiny and

debate. In this section, we analyze the main points in such debate by organizing our discussion around three main questions.

4.1. Does the Eurosystem strictly focus on price stability?

On announcing its monetary strategy in October 1998, the ECB expressed its intention to adhere to a *strict* interpretation of its mandate to guarantee price stability. Moreover, the ECB has frequently asserted that “central banks should, above all, avoid being in themselves, an additional source of uncertainty” for the market, and make sure that its actions are “understood and therefore predictable”.³¹ By many market participants, this was interpreted as a move away from the style of the Bundesbank, which “often took pride in having surprised the market by its actions”.³²

Nevertheless, the rate cut of 50 basis points on April 8 came at a time in which there was strong disagreement about the direction of the ECB’s next move, and its size surprised almost everyone. One of the main arguments in favor of the cut was fresh evidence of a deteriorating economic outlook for Germany and Italy, together accounting for more than 50% of euro area GDP. Thus, the ECB move clearly responded to cyclical conditions. Yet, the need for a further monetary easing was controversial. For instance, during 1998 many national interest rates had declined toward the German level, and the ECB had engineered a coordinated rate cut in December. Taking into account the “long and variable lags” with which monetary policy affects the economy, the generalized fall in interest rates in the previous quarters meant that a significant monetary stimulus was already under way. Some indicators were indeed providing signals in this direction: M3 growth was 50 basis points above the reference value, credit to the private sector was growing at high and sustained rates, and a weakening euro (along with recovery in Asia) was improving export demand.

Some observers and market participants have criticized the ECB for paying too much attention to the short-term development of economic activity and for allowing too much latitude for discretion in its monetary strategy, relative to what - in their view - was initially suggested by the ECB's own statements. According to this criticism, in April 1999 the ECB disappointed the markets in two respects. First, it showed that its commitment to price stability really coexists with other concerns. Second, it did not opt for a conservative stance (*i.e.* no rate cut) and/or more predictable conduct (*i.e.* a smaller rate cut) in a situation of widespread disagreement.

Such criticism, however, is hard to justify in light of the monetary constitution of Europe as established by Art.105(1) of the Treaty of Maastricht. Provided that it does not see its actions as putting price stability at risk in the medium run - and by the time of writing (September 1999) the inflation rate has been around a 1 percent rate, at the very center of the reference range - the Eurosystem is *expected* to support counter-cyclical policies. Also, a strict focus on price stability need not imply that the output gap and unemployment are ignored in policy decisions, but rather that they are treated exclusively as indicators of *future* inflation or deflation. Recent econometric evidence suggests that these indicators were indeed used this way by the Bundesbank.³³

The ECB cannot afford to overlook the risk that, in a scenario of generalized growth slowdown, national policy-makers decide to postpone important structural reforms. This consideration may help explain the ECB decision in April 1999, especially as regards the size of the interest cut. A large cut was unlikely to be perceived as a temporary "patch": it was instead expected to create the appropriate macroeconomic conditions for national authorities to carry out reforms of the budget and the labor market - the former seen as an essential element for stability in the euro area, the second as the key policy to reabsorb the high rates of unemployment.³⁴ This motivation is clear in the ECB President's statement accompanying the April 8 cut: "the decision taken today [...] contributes to creating an economic environment in which the considerable growth potential of the euro area could be exploited. Those responsible for other policy areas are urged now even more to take the necessary steps to improve longer-term growth prospects for the euro

and through strictly and decisively adhering to the aims of the Stability and Growth Pact and through convincing structural reforms in the economy”.³⁵

The view that policy coordination should be conducive to structural reforms is also reflected in many initiatives at the EU level, such as the adoption of the European Employment Pact at the summit meeting in Cologne, in June of 1999. Notably, the Pact promotes a macroeconomic “dialogue” in Europe among national governments, the European Commission, the ECB, and social partners, *i.e.* unions. While the content and goals of the “dialogue” are only vaguely defined, this European table could potentially play an important role in addressing basic political and distribution issues stemming from an extensive adjustment process in the European labor markets. Yet, policy coordination remains to a large extent an open issue in the post-EMU Europe.

4.2. Is the Eurosystem policy biased in favor of weaker countries?

Economists of the CEPR group “Monitoring ECB” have interpreted the April rate cut as a sign that the ECB is pursuing its mandate in a balanced way, by avoiding excessively narrow and restrictive interpretations. The same CEPR group, however, also writes: “although the ECB has vowed not to look at national situations, the interest rate cut was easier to understand in light of the economic situation in the weaker member countries rather than in light of the aggregate data in Euroland”.³⁶ At the time of the interest rate cut in April - while the cyclical condition of Germany and Italy were deteriorating - GDP in other countries, such as Ireland, Portugal and Spain, was growing at sustained rates. Some observers are inclined to read in the April decision to expand the money supply as an indication that the Eurosystem is somewhat biased in favor of the cyclically laggard countries.³⁷

It has been suggested that the root of this presumed bias towards weaker countries in the euro area could be the constraints on fiscal policy implied by the Stability and Growth Pact (SGP), as

analyzed in Section 13 below. In the presence of asymmetric cyclical conditions - the argument goes - a single monetary policy cannot fit the needs of all countries, but national governments can still use fiscal policy towards their output and employment goals. If the monetary stance reflected the average cyclical conditions of the area as a whole, stronger countries would have to contract, while weaker countries would have to expand their fiscal stance until achieving the desired level of aggregate demand. In the euro area, however, fiscal rules limit the extent to which the second group of countries can let their budget deficits increase. As their budgets automatically deteriorate in a downturn, these countries may not have enough room to implement the desired fiscal expansions. The problem clearly diminishes if monetary policy is tailored to the need of the cyclically laggard countries, since the SGP does not constrain the size of fiscal restrictions. Note that such a strategy would also favor a long-run reduction of national debt and deficits, as the policy mix would be biased toward an easy money-tight budget configuration.

Can this argument play a substantial role in the Eurosystem strategy? In our view, there are two main problems. First, suppose that the laggard countries were those EMU countries experiencing major structural problems, such as high public debt levels and/or highly regulated labor markets. The ECB's policy stance could be misinterpreted as subverting the fiscal discipline that EMU should impose on its members. Second, the argument presupposes that all the countries in relatively better cyclical shape are willing and/or able to adopt timely budget cuts of the appropriate size, to avoid the overall policy mix from becoming too expansionary. Thus, the absence of risks for price stability depends on some form of monetary and fiscal coordination that may not exist.

A different argument is that the ECB would tend to focus on large countries simply because of their weight in the euro area. Note that this argument is not persuasive on technical ground. There could be theoretical and practical reasons for weighing regional developments differently than suggested by their relevance for euro area GDP. For instance, the presence of structural links across regions could determine specific patterns of international transmission of the business cycle: responding to cyclical development in one region could be an effective way to implement

a pre-emptive policy action for the euro area as a whole. In any case, given the short history of EMU, a limited understanding of the international transmission of the business cycle within the euro area suggests caution in adopting such an interpretation.

It is worth stressing that the ECB does not give any information on the role of regional asymmetries in its decision process. So far, the monthly bulletins include almost no reference to local conditions and indicators in the discussion of monetary developments in the euro area. The rare allusions to country-specific situations do not specify 'which' country they refer to. Such a striking omission may reflect a pedagogical objective - encouraging Europeans to think in terms of the euro area as a whole. But it could also be attributed to the ECB's desire for caution in dealing with regional considerations, in view of their potential political impact.

4.3. Does the Eurosystem assign a prominent role to monetary aggregates?

In the few months in the life of EMU, the annual rate of growth of M3 in the euro area has exceeded the reference value of 4.5%. From a peak of 5.7% in January 1999 it has fallen to an average of 5.4.% between May and July 1999, mostly because of the fall in demand for low-yielding marketable instruments such as money market fund shares and short-term debt securities. Despite the overshooting of the reference value for the first pillar, as late as August 1999 M3 developments were not seen "as signaling inflationary pressures".³⁸ Demand for liquidity has been buoyant throughout the period; growth of overnight deposits in particular has been higher in 1999 than before EMU, and Y2K uncertainty could cause investors to accumulate more liquid assets over the last quarter of 1999. While not formally a component of the "first pillar", the rate of growth of credit to the private sector³⁹ has also remained strong during 1999, accelerating at the beginning of the summer.

Ultimately, how the ECB will use the first pillar of its strategy in practice remains unclear. The often mentioned experience of the Bundesbank shows that, between 1975 and 1995, the German

annual money target was achieved only in about fifty percent of the cases,⁴⁰ and that most of the misses were intentional.⁴¹ In other words, the reliability of the M3 growth rate as a leading indicator of inflation was dubious, even in the country with the strongest proclaimed reliance on monetary targeting. “Continuity” with the Bundesbank would then suggest that also the ECB will frequently let M3 growth drift away from its reference value without acting to correct such behavior.

What is the rationale for bringing monetary indicators to centerstage in the official Eurosystem strategy, when, as the experience of the ECB’s role-model shows, they are bound to be systematically ignored in actual policymaking? At least three answers can be suggested.

The first argument, made by the ECB, is that monetary aggregates may provide a more dependable guide for monetary policy in the euro area as a whole than has been the case in single member states. Econometric studies of the pre-EMU European economy show in fact that money demand appears to be more stable in a larger European context than in any national environment, both in the short and the medium run.⁴² A key problem with these studies is that, to obtain sufficiently long series for European money, prices, output, and interest rates, they must necessarily rely on pre-EMU country-specific information. This procedure is an easy target for the Lucas critique, since there is no presumption that the time-series properties of the variables considered are invariant to the EMU regime shift. For instance, Arnold (1994) points out that the relatively good performance of average European monetary aggregates as leading indicators of inflation in the past could be driven by the low correlation of country-specific shocks, which cancel each other out in the process of aggregation. To the extent that country-specific shocks become positively correlated in EMU, the demand for money function becomes correspondingly less stable. The ECB acknowledges this point, but, based on the findings from simulation studies,⁴³ considers its quantitative importance rather limited.⁴⁴

A second interpretation sees the choice of mixing (weak) elements from both inflation and monetary targeting in the Eurosystem framework as an implicit declaration that the ECB is

unwilling, in the present circumstances, to commit to a specific strategy/model/vision of monetary policy. The ECB is well aware that, after the launch of EMU, it will take time to develop some understanding of the new economic environment and the transmission mechanism of monetary policy in Europe. Even the availability and quality of data, while rapidly improving, is still far from adequate.⁴⁵ A monetary policy strategy based on direct inflation targeting is deemed - for better or worse - infeasible due to the difficulties of forecasting price developments in current circumstances.⁴⁶ At the same time, the major economic changes sweeping the euro area are likely to exacerbate all kinds of short- and medium-term problems with monetary aggregates as leading indicators of inflation. In view of these unique conditions and the circumstances of particular uncertainty associated with the start of EMU, the Eurosystem attributes high value to flexibility in choosing among alternative policy strategies.

A third argument, already mentioned above, is that the first pillar provides a public sign of adherence to the tradition of the Bundesbank, under the presumption that continuity in itself would enhance the ECB's credibility. The credibility problem faced by central banks is put by Alan Blinder in the following terms: "central bankers may want the latitude to change short-run tactics (e.g., abandon a money growth target) without being thought to have changed their long-run strategy (e.g., fighting inflation). To pull off such a feat without spooking the markets, it helps to have a reputation for keeping your word."⁴⁷ Now, at the launch of EMU - precisely when the need for flexibility and discretion is stronger - the Eurosystem starts off without a track record on which to base its credibility. At the same time, however, EMU does not start off in a historical vacuum: one of the NCBs absorbed by the new system is the unchallenged depository of anti-inflationary reputation in Europe. The larger the extent to which the Eurosystem is able to signal continuity of strategy and behavior between its experience and the Bundesbank's, the richer the perceived bequest of credibility accruing to the new institution. In the words of Wim Duisenberg, "the reference value [for money growth] ensures as far as possible continuity with successful monetary strategies in the euro area in the past."⁴⁸

A problem with this argument is that, as discussed above, the Bundesbank's adherence to monetary targeting was more formal than effective, and the anti-inflationary reputation of the German central bank was not really *based* on it (it has even been argued that the Bundesbank's reputation was achieved *despite* monetary targets). From this vantage point, it is not obvious that continuity with the Bundesbank is the best possible course of action for the ECB. Critics stress that credibility will actually be hampered by adopting the first pillar. Decisions taken while paying limited attention to the growth rate of M3 will have to be explained to the public while pretending that monetary developments are nonetheless essential leading indicators of inflation. A cosmetic token to continuity with the Bundesbank could be harmless, provided that in its communication strategy the ECB is able to provide a convincing account of the true decision process. The risk emphasized by ECB critics is that the first pillar may become a smokescreen hiding the true motivations of monetary decisions. In that case, it is argued that lack of openness and transparency cannot but induce the impression of a very high degree of discretion - eroding, rather than increasing, any initial capital of credibility that the ECB has managed to inherit from the past.⁴⁹

These objections to the first pillar are part of a general concern with the choice of the Bundesbank as a model for the ECB. Critics such as Willem Buiter argue that key elements in the Bundesbank strategy, such as secrecy and collective responsibility, are inappropriate in the euro area context.⁵⁰ Secrecy and collective responsibility undermine the ability of external observers to judge the behavior and relative competence of the Governing Council members. To the extent that this translates into a higher probability of reappointment of less competent members, the efficiency of the ECB is reduced. Also, as single members of the Council have a weaker incentive to represent their disagreement with a dissenting vote, they provide a fertile ground for compromises reflecting special interests - and denying the statutory mandate of the ECB.

A point that has been widely discussed is whether lack of public accountability gives Council members more discretion in defending national and partisan views in the process of policy

making. Realistically, national policy makers will have a great deal of information about the positions of single Council members. As the latter do not have to explain their behavior to the public of the euro area, pressures from national institutions and lobbies may become more effective, implying an excessive influence of regional considerations. However, given the complex dynamics of a decision process by a body with seventeen members, secrecy could also favor a process of (perhaps excessive) centralization of power in the hands of the president of the ECB. At this early stage in the history of EMU it is hard to determine which of these considerations will be more important. The French fit on the appointment of the first president of the ECB in June 1998 - leading to the awkward agreement on splitting the first term between the current president and the French candidate - seems to suggest that this first period in the ECB life be dominated by the search of a political equilibrium for the coexistence of diverse national interests.

5. The instruments of monetary policy in the euro area

The new operational framework of the Eurosystem hinges upon three monetary policy instruments: open market operations, standing facilities, and reserve requirements.⁵¹ These instruments affect all credit institutions established in the euro area, both domestic institutions and branches of overseas banks. It should be stressed that, while decisions regarding the use of these instruments are made by the ECB, operations are then technically implemented by the NCBs.

Open market operations typically take the form of repurchase agreements (repos)⁵² implemented by the NCBs through auctions: banks bid for liquidity by offering collateral. The main refinancing operations, short-term interventions having a maturity of two weeks that are undertaken by the ECB every Tuesday, play the key role in steering interest rates and managing market liquidity. Longer-term refinancing operations (carried out every month with a maturity of three months) are not generally meant to provide specific signals of the monetary policy stance.

In 1999 the main refinancing operations have occurred at a fixed rate (refi rate). As shown in Figure 1, this rate was 3% up until April 8, when the ECB announced a cut of 50 basis points to 2.5% to take effect with the next operation. In a fixed-rate repo, the ECB controls both the price *and* the quantity of money. A representative short-term operation takes the following form. The ECB announces the tender by 3:30 p.m. on Monday. The counterparties have time until 9:30 am on Tuesday to submit their bids. At 11:15 am the ECB announces the total amount of liquidity to be allotted. The submitted bids are satisfied *pro rata*, according to the ratio of the allotment to the sum of the bids, and settlement takes place on Wednesday.⁵³ Note that settlement takes place one day after the trading day, in order to prevent the auction from being affected by a scarcity of liquidity due to the settlement of earlier operations.

INSERT FIGURE 1 HERE

Technical characteristics such as the publication of the auction calendar well in advance of the tenders, or the anticipation of the auction (on Tuesdays) relatively to the settlement (on Wednesdays) represent elements of continuity with the procedures of the Bundesbank and other, but not all, European NCBs. Before the euro, for instance, the Bank of Italy did not consider a predetermined auction calendar well suited to managing the large and sharp fluctuations induced by the Italian Treasury activities.⁵⁴ Thus far, the liquidity impact of Treasury activities by Italy, France and Spain have posed a challenge to the forecasting ability of the ECB.

The preference for fixed-rate auctions as the mechanism for the main refinancing operations is also controversial. A typical feature of fixed-rate short-term operations in 1999 has in fact been substantial overbidding. The ratio between the amount allotted by the ECB and the total amount of bids has often been below 10% during the first seven months; in July it ranged from 4.2 and 7.4%. Since the ECB does *not* provide indications of the amount of funds it intends to allot at the tender, and the counterparties need only to have sufficient collateral to cover the successful portion of their bid, institutions tend to present larger bids than necessary - particularly in

situations in which banks are concerned with liquidity redistribution in the interbank market and prefer direct access to Eurosystem funds.⁵⁵ This procedure injects uncertainty into the environment of European banks.

Recently, the Eurosystem has been considering a switch from fixed-rate to variable-rate tenders. Implementing short-term variable-rate auctions would attain two goals: they would provide a better picture of conditions in the money market, and they would eliminate the overbidding problem. However, in a context of incipient inflationary pressures, markets may interpret such a switch as a signal toward monetary tightening, with destabilizing effects on market rates. This consideration may have played a role in the ECB choice to maintain fixed rate tenders over time, despite the problems described above. The ECB's initial preference for fixed-rate tenders probably stems from the fact that the Bundesbank adopted the same mechanism in February 1996, and used it during the last stage of transition toward EMU. For the record, expectations of a switch to flexible-rate tenders arose in Germany in the second half of 1997, once again in an environment of incipient overheating and depreciating exchange rates. However, in that situation the Bundesbank opted for an increase in the refi rate (in mid-October 1997, from 3 to 3.3 percent) while maintaining fixed-rate tenders.⁵⁶

Assets accepted as collateral for the Eurosystem's open market operations are classified according to a two-tier system. Tier I collateral satisfies euro area-wide standards, while Tier II collateral is certified by individual NCBs, and includes marketable and non-marketable debt instruments, as well as equities. To reduce the moral hazard problem of NCBs certifying national risky assets as collateralizable, the certifying NCB bears the entire default risk for Tier II assets. The Eurosystem bears the default risk for Tier I assets.⁵⁷ The two-tier set of rules seeks to ensure equal treatment of financial institutions residing in different countries, while at the same time minimizing the risk of losses in the monetary operations of the Eurosystem. It is motivated by the numerous idiosyncrasies in national financial systems, and by the political demand that EMU respect diversity in national financial cultures and traditions. While such diversity may disappear in the long run, note that, by recognizing the permanent need for a two-tier system, the

Eurosystem acknowledges that a common currency alone will not eliminate crucial asymmetries in national financial markets.⁵⁸

Different from open market operations, which provide or absorb short-term liquidity by initiative of the Eurosystem, two constantly available (“standing”) facilities provide or absorb overnight liquidity at the initiative of the individual counterparties. Upon presentation of collateral, institutions can borrow from the Eurosystem unlimited overnight funds through the marginal lending facility, and can deposit overnight funds with the Eurosystem through the deposit facility. The official borrowing and lending rates are determined by the Eurosystem, and effectively provide upper and lower bounds for overnight market rates at which institutions borrow from and lend to each other. The history of the interest rate “corridor” in 1999 is plotted in Figure 1. After a brief introductory period in which the range of fluctuation was rather small (plus or minus 0.25% around the 3% refi rate), the marginal lending rate was set at 4.5% and the deposit facility rate was set at 2%. Note that the interest rate corridor was asymmetric around the refi rate: the relatively high rate on overnight official loans provided an incentive to manage bank liquidity in an efficient way. Such asymmetry has disappeared since April 8, when the two rates were lowered to 3.5% and 1.5% respectively.

Use of the two standing facilities was particularly high during the first weeks of EMU, more as a result of the high volatility of money market rates within the narrow interest rate corridor than because of problems with the TARGET system. In January, because of the high volatility of overnight rates and some dispersion among rates quoted in different countries (although with spreads not above ten basis points), both standing facilities were often simultaneously in use. This anomaly has occasionally reoccurred, for instance on July 14 1999.

Being granted access to ECB auctions and standing facilities, credit institutions in the euro area are subject to a minimum required requirement in the order of 2 percent of all deposits and debt with maturity of less than two years.⁵⁹ There is no penalty for holding required reserves: these are in fact remunerated at the average refi rate over the maintenance period, which runs from the 24th

of one calendar month to the 23rd of the next. The amount of required reserves for the current period is estimated using balance-sheet data for the end of the previous period (on a quarterly basis for smaller institutions). Over the maintenance period the reserve requirement must be met on average, rather than on a day-by-day basis.⁶⁰ In the monetary policy framework of the Eurosystem, required reserves are meant not to be an instrument for short-term control of the money stock, but to improve the ability of the ECB to operate efficiently as a provider of liquidity, by creating or increasing a structural liquidity shortage.

6. Liquidity management and the money market

The monetary policy framework described above provides the institutional context to analyze the euro area money market. Two points are worth emphasizing. On the one hand, the new pan-European payment and settlement system has performed well, as the introduction of the euro has brought about an almost immediate convergence of national money market interest rates. On the other hand, difficulties have emerged in the process of liquidity management and elements of market segmentation have been observed.

Since the launch of EMU and the redenomination of deposits in euros, the new TARGET payments system has represented the essential catalyst for the process of monetary integration in Europe. TARGET is composed of the real-time gross settlement systems of EMU members and the ECB, connected by common infrastructures and procedures - the Interlinking system. The key advantage of TARGET is its operational speed - settlements are immediate and final as long as the sending institution has sufficient funds or overdraft facilities with a NCB. However, TARGET is relatively expensive - both in terms of pricing policy and its collateral requirements.⁶¹ After processing more than EUR 1000 billion average daily payments in January, payments volume has since decreased (in May and June the daily averages were EUR 869 billion and EUR 923 billion, respectively) but the order of magnitude remains similar to the US Fedwire system.⁶²

Since TARGET's inception, liquidity in the money market has improved across all maturities. The high volume of transactions is particularly evident in the overnight market, where the volume of trade exceeds EUR 55 billion daily. The average ticket size has also increased relative to the sum of transactions in national currencies before conversion. Reportedly, trades in excess of EUR 150 million are common, and trades of up to EUR 5 billion have been recorded.⁶³

In terms of price sources, the euro area-measured EONIA⁶⁴ has emerged as the benchmark overnight interest rate, dominating its competitor EURONIA (an equivalent index measured in London).⁶⁵ The spreads between national overnight rates and the EONIA are negligible, and the weighted standard deviation of the average country rates fell below 2 basis points after the first three weeks of EMU. All available evidence suggests that unsecured interbank rates are well-aligned across national markets, a measure of the success of EMU. Yet, not all elements of national segmentation have been removed: bid-ask spreads remain somewhat different across countries, and in some countries they are higher than in pre-EMU Germany.⁶⁶

The behavior of the EONIA within the interest rate "corridor" is plotted in Figure 1. The EONIA has often been quoted above the refi rate, possibly due to the fact that - distinct from Eurosystem refinancing operations or private repo transactions - interbank overnight loans are not collateralized. An alternative explanation (especially in the early stage of EMU) is that the spread reflects problems of redistribution of funds in the interbank market - large, collateral-rich banks absorb liquidity at the Eurosystem auctions and squeeze small banks in the unsecured market - as well as reluctance to look beyond national borders for funds. The latter problem may partially be the result of still insufficient cross-border credit lines supporting interbank lending in the euro area, a legacy of the pre-EMU system.⁶⁷

One of the most evident patterns exhibited by the EONIA is the sizable jumps at the end of the reserve maintenance periods. For instance, the EONIA collapsed toward the end of the second maintenance period ending March 23 (falling as low as 2.19 before rebounding to a level close to

the refi rate, at the time equal to 3 percent). A similar downward jump occurred in July, while upward blips were recorded in April and May. The sharp swings in overnight rates apparently signal difficulties in managing liquidity in the euro area. For instance, in February the EONIA jumped upward – and borrowing from the Eurosystem’s marginal lending facility peaked – as banks scrambled to meet their reserve requirements. In contrast, on the final day of the reserve maintenance period in March - a Tuesday, the day of a main refinancing operation - the liquidity injection from the Eurosystem was much greater than expected, leading to a plunge of the EONIA and an extensive use of the Eurosystem deposit facility.⁶⁸

The Eurosystem identifies the root of its difficulties as determining the appropriate amount of liquidity in the presence of “autonomous” factors - especially government deposits - which influence the demand of reserves. As late as the fifth reserve maintenance period (ending on June 23), the ECB estimated the net liquidity-absorbing impact of the autonomous factors at EUR 74.8 billion, *vis-a-vis* a net provision of liquidity through open market operations of EUR 176.7 billion. The largest liquidity-absorbing change in treasury deposits during a reserve maintenance period stems from the Italian tax collection scheduled on the 23rd of each month, thus coinciding with the last day of the maintenance period.⁶⁹ In principle, the ECB could intervene in the market to smooth interest rate swings through fine-tuning operations. So far it has decided not to, arguing that the volatility of the EONIA at the end of the reserve maintenance periods does not have a relevant impact on longer maturities along the yield curve.⁷⁰

7. The growth of the bond market

By creating a large and liquid bond market, the introduction of the euro is expected to foster the growth of a large market for corporate bonds, and significantly affect the process of disintermediation leading to a significant reduction in the role of banks in European corporate finance. Currently, the proportion of loans to bond financing in Europe is estimated to be almost 3 to 1, roughly the reverse of the US pattern. Preliminary evidence for the first two quarters of

1999 seems to confirm that the European bond market, especially the corporate segment, is growing extremely quickly. If sustained, the current growth would indeed allow the corporate bond market in Europe to bridge the gap with the US in a matter of years. But the specific conditions prevailing at the beginning of 1999 suggest a cautious interpretation of the data.

Evidence on the bond market is provided by Capital Data Bondware, which calculates the overall issuance of underwritten bonds denominated in euros. The data provided do not include, among other things, equity and warrant-linked bonds, and government bonds that are auctioned rather than underwritten. Looking at the *total* of domestic and international bonds, issuance increased from an average of EUR 150 billion in 1998, to EUR 261 billion and EUR 220 billion in the first and the second quarter of 1999, respectively. As mentioned above, the non-financial corporate bond sector experienced the strongest growth rate. Issues by corporations rose from an average EUR 8.9 billion in 1998 to EUR 30 billion and EUR 16.4 billion in the first and second quarters of 1999, respectively. Despite the fall in absolute value between the two quarters, their share of corporate bonds in total issuance increased from 12% in the first quarter of 1999, to 16% in the second quarter of 1999. The Bank for International Settlement also points out at a record volume of activity by corporate borrowers, ascribing the bulk of the growth to European companies.⁷¹

Can these data be interpreted as evidence of a significant step towards a large pan-European corporate bond market and a changing pattern in European corporate finance? First, a close look at the data reveals that most of the growth has come from European companies that have already issued bonds in the past, and foreign (i.e. non-euro area) issuers (in particular, the presence of US firms in the European bond market has significantly increased). The development of the market, at least so far, does not reflect a larger base of issuers. Second, part of the upsurge in the euro area bond market in the first months of 1999 can be attributed to the fact that some corporations (as well as governments, as discussed in the next section) had delayed and bunched issues in anticipation of the birth of the euro. Reportedly, the rationale for such behavior was the desire to establish a presence in the new market with large and liquid issues. This consideration is consistent with the recorded increase in the average size of issuance between 1998 and 1999.

Third, some of the issuance may have been driven by the wave of mergers and acquisitions that is occurring throughout Europe, that is temporarily magnifying the financing needs of the corporate sector. Fourth, over the period, bond issuance has also increased in other currencies, *i.e.* it has not been a specific feature of the euro area.

To some extent, corporations may have been encouraged to resort to the euro bond market by the sharp drop in yield spreads across countries at the birth of the euro. The drop occurred in a context of generalized low yields, which were expected to reduce the traditional resistance of European investors to low-rated bonds as a way to seek better returns (indeed, the available evidence records an increase in the issuance of low-rate bonds). Low yields at the beginning of the year may also explain the boom in the issuance of *Pfandbriefe*, the fully collateralized bonds issued by specially authorized German banks to fund housing, shipbuilding and public loans. With an outstanding stock of EUR 930 billion at the end of 1998, *Pfandbriefe* are the largest non-government asset class in Europe, far larger than the stock of any European national government debt. New issues in the first quarter of 1999 exceeded EUR 99 billion; they have since dropped to EUR 33 billion in the second quarter, possibly reflecting the upward adjustment in long-term interest rates.

Finally, it is worth stressing that, relative to non-financial corporations, the weight of issuance by banks, although falling, remains very large, dominating the market with approximately two thirds of total issuance. According to the BIS, the first quarter of 1999 has also recorded a large increase in bank lending. After a contraction of USD 126 billion in 1998, for instance, international bank lending in euros has climbed to USD 337 billion in the first quarter of 1999.⁷² Not only European banks have added to their portfolio of European debt securities (largely reflecting government issues, as discussed in the next section), they have also been major players in financing mergers and acquisition.

8. Public debt management in a common currency area

Following the birth of the euro, government debt previously denominated in national currency has been converted into the new common currency. With an outstanding stock of about EUR 3 trillion, euro-denominated government bonds account for the largest market for government bonds, larger than the US market. However, European bonds are issued by 11 independent sovereign states, with different financial needs, fiscal policies, and regulations. The birth of the euro has therefore raised interesting and unprecedented issues in public debt management. By eliminating currency risk, the euro has eliminated an important differentiating feature in the supply of debt instruments, thus forcing European government to rethink their financial policies. By speeding up the process of market integration, a common currency has increased the potential demand for national bonds, but has also intensified competition among sovereign issuers, providing strong incentives to reform markets and pursue efficiency and transparency standards. The euro has also raised the issue as of whether, and to what extent, public debt management is a matter of common concern, requiring coordination and cooperation among European governments.⁷³

During the course of 1999, European governments are expected to issue bonds for almost EUR 500 billion (see Table 1). The three largest players are Germany, France and especially Italy, whose 1999 redemption schedule is particularly heavy. New issues seem to have been front-loaded in the first few months of the year: approximately one third of the estimated 1999 gross issuance was concentrated in the first quarter. In this period, benchmark bonds issued by France, Germany, Italy and Spain have often exceeded the size of the US Treasury benchmark.

INSERT TABLE 1 HERE.

Despite significant differences in ratings, yield spreads on government bonds have been quite narrow, and also seem to reflect liquidity considerations. Relative to 10-year German *bunds*,

spreads have at most reached 30-33 basis points in the cases of Italy and Portugal. Markets seem to have focused on the fact that deficits are uniformly low in all euro area states, and downplayed any risk of secession. Reportedly, the birth of the euro has indeed changed the criteria used by rating agencies to assess sovereign risk: variables such as trade deficit, export growth and exchange rates now receive very little consideration, while the focus is almost exclusively on the fiscal stance. In part because the European SGP establishes upper limits to the ratio of the overall (i.e. not cyclically-adjusted) national budget deficits to GDP, even mild cyclical fluctuations of deficits towards these limits may induce some variability in rating and yield spreads over the business cycle.⁷⁴

A significant cross-border diversification of government bond holdings has not (yet) occurred. Although hard evidence on diversification is scarce, the general perception is that very few investors have appreciably modified their holdings of domestic debt. Many market participants, however, anticipate a change in portfolio patterns as soon as European money managers come to be evaluated on the basis of European performance benchmarks rather than domestic benchmarks.

Underlying these general features of the government bond market are different objectives and strategies pursued by national Treasuries. In the two largest countries in the union, Germany and France, debt management is largely seen as part of a general strategy to promote the national market as European financial centers. The immediate goal is to establish domestic government bonds as benchmark⁷⁵ for the euro area as a whole. France can count on the fruits of a decade-long effort to modernize its bond market: French bonds are quite standardized, sufficiently liquid over a large spectrum of maturities, and supported by a well-organized and transparent market for repurchase agreements. The main drawback is perhaps the low liquidity of the French bond futures contracts, compared to the liquidity of the Eurex *bund* future contracts. To reduce the gap with French standards, Germany has also been reforming its markets. In particular, breaking with its traditional preference for issuing debt through syndication, Germany has recently adopted an auction system, accessible to an “auction group” of domestic and international investors.

In the eyes of market participants, neither government is likely to become the sole provider of benchmark bonds across the whole spectrum of maturities. In part because of the importance of the *bund* future contracts, German *bunds* are expected to be the European benchmark for the 10-year sector, while French issues should dominate shorter maturities. However, the specific bond to be included in the set of euro benchmarks may well vary over time, depending on circumstances. Consistent with the general principle of promoting their national markets to the status of European financial centers, France and Germany require primary dealers in sovereign debt to be located in the country.⁷⁶ A location requirement is not necessarily in the interest of the other countries, in that some have actually reformed their regulation to allow primary dealers to be located abroad.

Because of their low credit rating (see Table 2), Italian bonds cannot compete for the status of the European benchmark. Yet the large stock of its public liabilities assigns to Italy a comparative advantage in terms of liquidity, an advantage that has been exploited by resorting to “jumbo” issues of euro denominated, fixed-income conventional bonds.⁷⁷ A goal actively pursued by both Italy and Spain in recent years has been an improvement in debt maturity and duration. Between July 1998 and June 1999, for instance, the average maturity of the Italian public debt rose from 4.9 to 5.5 years - a level consistent with the average maturity of the French and German debt.⁷⁸

INSERT TABLE 2 HERE

Issuing a few standard bonds in large amounts is also the dominant strategy in other countries of the euro area, mainly because of concern with the liquidity of their new issues, as well as with the related goal of marketing domestic debt to non-domestic investors. As a general pattern, debt managers have increased the size of each bond, while reducing diversification of their supply. There are however differences across countries in regards to the choice of auctions as opposed to syndication.

In regards to the secondary market for government debt, European bond markets are to a large extent telephone-based. The exception is Italy, which since 1988 has adopted an electronic-based systems, the MTS.⁷⁹ Since March of 1999, a European version of it, based in London, is open to trade in the largest and most liquid government bonds of Germany, France, Italy and, by the end of October 1999, Austria, Belgium, the Netherlands and Spain. So far, this market has been remarkably successful. The average daily trade between the end of March and the end of June 1999 was EUR 2.7 billion, evenly divided across German, French and Italian bonds. To the extent that the Euro-MTS can capture a large percentage of trade, the existence of such a market will undermine the idea that European benchmark bonds necessarily help the development of national financial centers. According to some observers, for instance, this consideration may actually motivate governments to increase the privileges granted to primary dealers of national debt - as a way to prevent them from moving away from domestic markets.⁸⁰

Will the euro necessarily encourage more coordination and cooperation among public debt managers? According to recent proposals, the euro area should create a single European debt agency, issuing European debt instruments on behalf of national governments.⁸¹ Supporters of this idea - such as the former monetary affairs commissioner of the European Union - stress three motivations: the belief that both lack of coordination among national issuers and market fragmentation is a main factor hampering the euro's status as reserve currency; the need to avoid congestion in European financial markets because of uncoordinated bunching of issues; and the presumption that a unique agency would reduce the cost of borrowing. Note that the creation of a supranational debt agency as a new European institution would require a costly process of revision and amendment of European treaties.

These arguments in favor of the agency are however unconvincing. Consider first the presumption that a supranational agency would reduce the cost of borrowing. As national issues will be lumped together, there is some scope for increasing the liquidity of European debt instruments. Yet, it is unlikely that the existing differences in rating among sovereign debtors be overlooked by financial markets. At best, the debt issued by the European debt agency would be

rated at some average of the underlying rating of member states, so that the creation of a common agency could translate into a net gain for issuers with low rating and a liquidity problem. All other countries, however, would possibly experience a net loss. Moreover, to the extent that the issue of undifferentiated European bonds is perceived to reduce transparency with respect to the creditworthiness of the borrower, the overall cost of debt may well increase, rather than decline.

A supranational agency could reduce competition among national treasuries, which is now perceived as an important factor at the root of innovations and efficiency standards in European financial markets. Also, current practices in the euro area already minimize the risk of congestion. Italy and France publish an annual calendar of issues, while Germany publishes a quarterly calendar, without necessarily specifying the exact dates of issues. Pressured by the scale of debt redemption in 1999, Italy has “strategically” chosen to present its 1999 calendar well before France, trying to exploit a first-mover advantage. Conversely, many observers expect Germany to exploit its flexibility in choosing dates, by strategically placing them close to issues by the other two countries.

On the positive side, the existence of a supranational agency would be likely to promote product standardization - but a market-driven trend in this direction is already detectable. If anything, some market participants have expressed concerns about “excessive” product standardization, as new issues have been largely consisting of standard fixed-income bonds. The supply of indexed bonds, for instance, has markedly fallen. Finally, a European debt agency could reduce the market power of primary dealers, that according to some observers has increased due to competition among debt managers.

As the proposal of a single debt agency has been met with widespread skepticism and criticisms, it is unlikely that such an institution will be created in the near future. Some form of coordination may nonetheless emerge, especially if debt management ends up creating liquidity management problems for the ECB as mentioned above.⁸² Notably, an example of an institution coordinating debt issues is provided by the German Committee for Public Sector Credit Issue, which assures

full cooperation among the Ministry of Finance, the Lander governments, the Bundesbank as well as public and local institutions.

9. The equity market and the demand for diversification

In light of the scant evidence, the impact of the euro on equity markets is harder to assess than on the bond markets. In addition to the elimination of currency risk within the euro area, the common currency is expected to produce important discontinuities in the time-series behavior of national variables (such as inflation), with potential consequences for risk premia. The considerable uncertainty about the new economic environment has encouraged a thorough review of equity portfolio strategies and risk exposure by both individuals and institutional investors. Bank of England (1999) for instance reports the result of a survey of continental European fund managers carried out in April by Merrill Lynch and Gallup. In this survey, one out of four managers had already carried out the portfolio adjustment they considered necessary by April 1999, while 62% of them were confident to have it completed by the end of the year. The marketing and investment strategies pursued by investment institutions reveal interesting trends. Many of these now emphasize cross-border, sector by sector allocations of portfolios. Such a strategy is supported by the creation of several pan-European stock market indexes, including also sectoral indexes. The problem with this approach is that, while currency risk has disappeared in the euro area, country risk has clearly not. Not only fiscal and regulatory policies, but also labor markets and financial systems differ across member states. As we discuss below, there is no presumption that the effects of the common monetary policy will be symmetric. Country-specific factors are not likely to disappear from the portfolio strategies pursued by investment managers.

The eventual scope and size of the ongoing portfolio revision are unclear. The first issue is the extent to which the euro will lead to a portfolio reshuffling towards pan-European, rather than national, asset holding. It has been observed that eliminating currency risk could alter the perception and definition of “domestic” assets, as to include all assets denominated in the

common currency. Thus, for a given home bias in portfolio formation, we should expect more cross-border equity holdings. According to recent estimates of equity holdings in Italy, France, Germany, Portugal and Spain, the percentage of domestic asset in the portfolio held by resident is above 90%. While evidence at the state level in the United States does not reach these peaks, it is noteworthy that a significant home bias also persists in federal states such as the United States, with the longest tradition of currency union. The US experience could provide a benchmark to assess what could be a realistic end-point for the process of cross-border investment diversification in the euro area.⁸³

In spite of the changes in the investment industries mentioned above, major diversification is unlikely to occur rapidly. Other things equal, domestic and local portfolio managers may need time to redirect their operations towards markets where they do not have a comparative analytical advantage. In Europe, there still exist considerable national differences in the fiscal, regulatory and political systems, let alone in corporate behavior. Moreover, the presence of capital gain taxes may discourage portfolio diversification through reallocation of existing holdings, while favoring the more gradual approach consisting of investing abroad new flows of funds. By the same token, the portfolio composition of existing mutual funds may be constrained by their official mandate. Diversification may occur through the creation of new mutual funds with broader mandates, rather than the redirection of existing ones.⁸⁴

Important changes are occurring in the organization and technical capabilities of European markets, as exemplified by the alliance between Frankfurt and London stock exchanges with the goal of creating a single and liquid market for stocks with large capitalization. But progress in this area crucially depends on the removal of impediments arising from differences in law, regulation, and tax regimes.⁸⁵ Although the number of markets in the euro area is considered excessive by many, it is unlikely that domestic markets will disappear. Rather, they are likely to specialize in medium- or low-capitalization domestic stocks, leaving large stocks to a deeper pan-European market.

10. Banks, mergers & acquisitions, and national champions in the euro area

It is an easy prediction that the sector at the very center of the European financial system will also be the sector most affected by the transformations brought forward by EMU. But the direction in which continental European banking is heading is by no means clear. A first issue is the extent to which existing differences will persist over time. A second issue is which particular model of banking will become the prevailing model for Europe, and how fast the transformation of European banking will take place.⁸⁶

The sizable difference in the weight of bank loans in corporate finance between continental Europe and the US or, to a lesser extent, the UK,⁸⁷ corresponds to a dichotomy between models of financial intermediation. The ‘Anglo’ model, based on the greater reliance on impersonal markets, differs from the traditional European model, based on the greater reliance on relationship banking. In recent years, several factors have already induced changes in these models, independently of EMU. A leading example is provided by the developments in computing and telecommunications technology, which have undermined the very core of the European traditional model by encouraging price competition across a wide range of products and by reducing the relevance of historical bank-customer relationships.⁸⁸

The key issue then is whether, and to what extent, such a dichotomy will persist in the EMU era. Within the context of the ongoing technological and legal transformation, EMU is expected to enhance competitive pressures in the European banking system. To the extent that the disappearance of currency risk facilitates development of pan-European financial markets, corporations will find it increasingly advantageous to issue securities rather than seek bank loans. The availability of a wider variety of investment opportunities will provide an incentive for

European bank customers to shift from safe, but ultimately low-return deposits, to higher-yielding mutual funds, employer-sponsored thrift plans and the like. A significant increase in households' demand for securities will also stem from the development of fully-funded pension plans, that demographic trends and changing political postures are fostering throughout Europe.

The transformation of the European banking system in response to stiffer competition presents several similarities with US financial developments in the past two decades.⁸⁹ At the root of both cases is the combination of technological developments, deregulation, and a growing securities industry. In both cases the number of banks has decreased, small banks have been hit more severely than large institutions, and the wave of consolidation has tended to increase market concentration.⁹⁰ In both cases, also, the bulk of the adjustment has occurred through mergers and acquisitions, and bankruptcies have played only a marginal role.

What distinguishes the consolidation processes in Europe and the United States is the fact that in the United States indicators of concentration at the local level have slightly decreased, while in Europe the concentration of banking activity in the largest institutions at both the national and local level has significantly increased, especially in smaller countries. So far, the consolidation of the EU banking industries has mostly taken place within national boundaries. Out of 488 mergers and acquisitions from 1995 to the first quarter of 1998 in the EU, cross-border activity accounts for only 17.6%,⁹¹ and the additional wave of mergers from 1998 through 1999 has strongly reinforced the pattern. In other words, the process of European banking consolidation has not yet eroded the segmentation between national markets, nor enhanced the degree of internationalization of the European banking system. With the exceptions of Ireland and Luxembourg, countries in the euro area still report a domestic share of branches and subsidiaries from foreign countries below 11%.⁹²

Consolidation confined to the national level raises at least two kinds of problems. At the microeconomic level, to the extent that it reinforces the local monopoly power of the banks, it may increase inefficiencies faced by borrowers, and worsens the conditions of those customers,

in particular small firms, that are less likely to have access to international capital markets.⁹³ At the macroeconomic level, it can affect the monetary policy transmission mechanism. For example, there is evidence that large German banks tend to insulate their loans from monetary policy fluctuations⁹⁴ - a point we revisit below in the context of our analysis of asymmetries in Europe. But, despite these concerns, for the time being there is no sign that the bias against cross-border bank mergers in the euro area is bound to disappear. While diverse factors can contribute to explain such a bias, a key role is played by national law, regulation and tax regimes, which *de facto* keep national markets segmented. For instance, there exists no uniform European corporate law providing a framework for the birth of European (transnational) firms. This is a key problem hampering cross-national mergers of both financial and non-financial corporations. Moreover, as the structure of bank supervision in the euro area is decentralized, the incentives faced by nationally-based supervisors may work against cross-border mergers.

Supervision in the euro area remains organized at the national level. Those NCBs having domestic supervisory and regulatory functions in the pre-EMU era (6 out of 11) have retained them. In other countries - such as France and Germany - supervision and regulation resides with independent agencies in close cooperation with the respective NCBs. It is often argued that, as long as bank activity remains essentially confined to the national level, supervisory tasks are not impaired by informational problems. Difficulties in monitoring a bank's activity and balance sheet can however emerge in the case of international banks. The desire to avoid these difficulties may give national supervisors an incentive to discourage cross-border mergers - up to blocking them in countries where bank mergers requires supervisory approval. Interestingly, a few national supervisors have recently expressed their aversion to hostile takeovers in the process of within-border consolidation, perhaps in fear of setting a risky precedent for future successful bids by foreign competitors.⁹⁵ Ultimately, decentralized regulation can itself hamper the process of integration of European capital markets, and impart a bias toward "national champions," with uncertain implications. To the extent that the process of EMU banking market integration can be slowed down but not halted, "national champions" may become embarrassing liabilities for national authorities. In an integrated market, these champions will be focused too broadly at

national level to benefit from the knowledge of local markets, but at the same too small to compete effectively with large international institutions.

There is another reason why several critics of the current regime of decentralized supervision are concerned with its effectiveness once the European banking market will become more integrated. In crisis situations, a national supervisor may not fully internalize the euro-wide implications of its decision when facing the option of rescuing a bank located in its own country but also operating abroad.⁹⁶ Crisis-management considerations thus make it likely that the emergence of European transnational banks will lead to some centralization in supervision. Currently, national supervisors cooperate with each other on a bilateral basis, according to a memorandum of understanding between EU countries that regulates exchange of information and provides for periodic meetings, without, however, being legally binding. There are also two multilateral forums: the Banking Supervision Committee of the ECB, and the lower-level Groupe de Contact.

Early on, critics questioned the ability of the new EMU institutions to cope with financial crises in a timely and effective manner.⁹⁷ After the launch of the euro, however, the ECB has replied to these criticisms by clarifying the Eurosystem procedures for crisis management. Provision of emergency liquidity is a national responsibility, and its costs are to be born at national level. Cooperation and exchange of information are required for the ECB to manage the impact of emergency interventions on the monetary stance of the euro as a whole. An issue that remains open is what role market segmentation will play in a potential EMU crisis scenario. On the one hand the segmentation currently characterizing the euro area could effectively contain the risk of cross-border contagion of a financial crisis erupting in one member country. On the other hand, there may be severe problems associated with lack of information at a central level, as well as with constraints on the flow of liquidity from one market to another.⁹⁸

11. The exchange rate of the euro

At the onset of European Monetary Union in January, one euro was worth one dollar and 18 cents. In July, it was worth less than one dollar and two cents: a depreciation of 13.5% in less than seven months, before rebounding in the second half of July. The weak performance of the euro in the first half of 1999 has been cited by euroskeptics of all stripes to question whether Europe was, after all, ready for a common currency. In our view, the slide of the euro has attracted a share of public attention much larger than its importance, in either macroeconomic or policy terms. In light of our analysis in Section 7 above, the weakness of the euro in the first half of 1999 does not appear to have undermined the international role of the new currency. A “continuing buoyancy of issuance in euros despite the unfavorable background of euro weakness”⁹⁹ was a striking feature of international capital markets in the first two quarters of 1999.

To put the recent behavior of the euro in an historical perspective, Figure 2 plots the exchange rate of the “synthetic euro” against the US dollar over the 1990s.¹⁰⁰ Three elements emerge. First, over recent history, the euro’s slide in 1999 (more precisely, since the last quarter of 1998) appears as the mirror image of its strong appreciation in 1998, a “compensation” - to quote the ECB President Duisenberg - for the rise in the value of European currencies before EMU. Second, taking a longer-term perspective, the frequent swings of the euro against the dollar over the 1990s have been equal to or larger than the 1999 slide. Third, these fluctuations have occurred around a slowly declining trend. From this vantage point, the level of the euro in the summer of 1999 was consistent with its low-frequency history. If anything, it is the value of the euro in the months *preceding* the launch of EMU that stands out as being well above its trend.

INSERT FIGURE 2 HERE

Over the first half of 1999, the euro also weakened significantly against the yen, although in a tighter range than against the dollar. In response to the strength of the yen, the Bank of Japan reportedly intervened on several occasions, and on June 18 the ECB - in its first and so far only currency market intervention - acted on behalf of the Bank of Japan to weaken the Japanese currency against the euro.¹⁰¹

Commentators have cited a host of factors to “explain” the behavior of the euro over the first months of 1999, ranging from the delayed effects of the Asian crisis to uncertainties created by the Balkan war, but mostly focusing on two arguments: concerns over fiscal profligacy by some EMU members, and cyclical divergence between the euro area and the US economies.¹⁰² In retrospect - and to the extent that a short-term macroeconomic analysis of exchange rate fluctuations makes any sense at all - the first of the two factors appears to have played but a marginal role, while the second appears to have been decisive.

The only specific episode in which the weakness of the euro was clearly associated with fiscal problems¹⁰³ occurred when a revision in growth forecasts led the Italian Treasury Minister to request a relaxation of the Italian deficit goal for 1999 to 2.4 percent of GDP from the previous 2.0 percent. This modification was granted on May 27 by the ECOFIN¹⁰⁴ ministers. The euro reached an all-time low of \$1.04 the day after, prompting analysts to express their concern that single currency members were easing their deficit targets, and officials to reiterate that this was not the case.¹⁰⁵ Given the extent of the unanticipated growth slowdown, the Italian request was not unreasonable: no revision would have been necessary had deficit targets been specified in cyclically-adjusted terms. At any rate, the impact of this episode on the external performance of the euro was ephemeral: it is worth stressing that a larger deficit in the euro area could weaken the euro only if the ECB were expected to accommodate it through a monetary relaxation (which would be tantamount to questioning the ECB’s commitment to its institutional mandate).¹⁰⁶

Fiscal factors notwithstanding, the most convincing interpretation identifies the root cause of the euro’s slide with cyclical divergence between the European and the world economies. To some

extent, the slide of the euro represents a textbook case of exchange rate adjustment in response to a perceived shift in economic fundamentals. Figure 3 plots the revision over time in expectations for the 1999 growth differential between euro area and US (measured by Consensus forecasts¹⁰⁷) and provides preliminary but compelling evidence that the timing and magnitude of the shifts in relative growth expectations were consistent with the behavior of the euro.

INSERT FIGURE 3 HERE

During the first nine months of 1998 Consensus forecasters expected the growth differential to swing in Europe's favor, with Europe growing at about 0.6 percentage points faster than the United States in 1999. During this period, the European currencies - components of the synthetic euro - appreciated rapidly. By late 1998, as the European recovery stalled and the US economy continued its strong performance, the Consensus still expected the growth differential to reverse in 1999. As recently as the fourth quarter of 1998, the Consensus projected that Europe would be growing 0.3 percentage points faster than the US. By the first quarter of 1999, European forecasts were being revised down and US forecasts were being revised up. By the second quarter of this year, forecasters were expecting the US to outpace European growth by over 1.5 percentage points. In sum, the euro's slide was a clear reflection of the ratcheting down of expected growth differentials during the first half of 1999. Even the upswing of the euro in July was related to an improvement in the expected relative growth performance of the euro area. Among the key elements coinciding with the sudden rebound of the euro was the July release of better-than-expected business surveys from Germany, France and Italy pointing to a recovery in European industrial production.

Has the euro's slide been good news for Europe? Arguably yes, by providing cyclical stimulus and counteracting transitory weaknesses of the European economies through a rebound in export orders. To quantify this sort of stimulus, the OECD presents estimates of the responses of GDP growth and inflation to a sustained 10% change in the effective value of the euro. According to these estimates, this would add more than one-half percentage point to real GDP growth after one

year, cumulating to more than one percentage point after two years. The cost of this boost to growth is a 0.6 percent increment to inflation, felt in the first year.¹⁰⁸ In the current economic environment, with euro area inflation running near 1%, such a rise would leave inflation still below the 2% bound for price stability.

The Eurosystem deliberately does not specify any target for the exchange rate of the euro. The argument is that price stability would be compromised if an exchange rate target were to be pursued. It has been argued that the relaxed attitude of the ECB to the euro's slide represents an element of discontinuity in European monetary policy from its Bundesbank-dominated past. An important consideration helps understand this apparent departure. Before EMU, fluctuations in cross-Atlantic exchange rates had an impact on intra-European exchange rates, and were a major source of destabilizing pressures. Such empirical regularity was referred to as the dollar/D-mark polarization: when the dollar strengthened against the D-mark, currencies such as the French franc or the Italian lira tended to appreciate against the D-mark as well. Downward swings of the dollar were particularly problematic: almost all realignments in the EMS were preceded by a fall in the effective dollar index and were followed by a recovery of the dollar.¹⁰⁹ Other episodes of strain in the EMS were associated with swings of the dollar exchange rate, and the crisis of September 1992 that led to the exit of the lira and the pound from the EMS was preceded in the summer by a dollar crisis. Today, the risk that cross-Atlantic exchange rate fluctuations have any impact on intra-European exchange rates has disappeared - with the notable exception of the exchange rate between pound and the euro. Other things being equal, the ECB can afford to adopt a more detached attitude toward exchange rate fluctuations than was the case in the past.

While the ECB does not appear to have espoused the case for explicit support of a strong euro, as made by some economists,¹¹⁰ consistent with the "second pillar" of the monetary strategy exchange rate developments are monitored with regard to their impact on prospective price developments. Quoting Otmar Issing: "If a prolonged depreciation were to lead to significant inflationary risks in the euro area, all other things being equal, we would clearly know how to respond."¹¹¹ The vagueness of the ECB pronouncements - clearly, no estimate of the elasticity of

the HICP to a depreciation is provided - potentially leaves open all courses of action short of explicit exchange rate targeting. Over the first months of 1999, these ambiguities have fostered concern over the possibility that ECB would intervene or raise interest rates to keep the euro from falling below the dollar.¹¹²

An element of concern in assessing the perspective developments of the euro is that, according to Article 109 of the Maastricht Treaty, the Council of Ministers may “conclude formal agreements on an exchange rate system for the ECU in relation to non-Community currencies” (acting unanimously on a recommendation from the ECB or from the Commission), and has the right to “formulate general orientations for the exchange rate policy” (acting by a qualified majority on a recommendation from the ECB or from the Commission).¹¹³ Although the Treaty expressly rules out exchange rate initiatives inconsistent with price stability, Article 109 raises the possibility of conflict between ECB and parts of the European policy establishment regarding exchange rate orientations. A case emerged in the spring of 1999, when a number of European policymakers proposed - unsuccessfully - different plans to implement exchange rate target zones among the key currencies, in some cases explicitly referring to Article 109 of the Treaty. It is worth stressing, however, that on December 13, 1997, the European Council agreed to limit the provision of exchange rate orientations to “exceptional circumstances” and to “respect the independence of the Eurosystem.” Yet, the meaning of “exceptional” remains undefined and, since this agreement is not part of the Treaty, it can be revoked at the sole discretion of the Council of Ministers. Ultimately, the clause gives the euro area finance ministers - as Willem Buiters writes - “a foot in the door of Euro area monetary policy design”¹¹⁴ and may represent a threat to the independence of the EMU institutions.¹¹⁵

12. The asymmetric EMU

For most critics of European monetary integration in the pre-euro days, the major argument against a common currency hinged on the view that Europe was too heterogeneous - significantly more so than the United States - and therefore too vulnerable to country-specific shocks, which could be best dealt with by letting exchange rates change. The creation of EMU has settled the policy debate on whether Europe could afford to give up exchange rate flexibility, without necessarily implying, however, that the issues and concerns raised during the debate have been answered.

To start with, notable differences in growth performances have recently emerged after a two-year recovery phase common to almost all EMU member states. According to recent calculation by the ECB, the increase in growth dispersion reflects to a large extent differences in *trend* growth rates.¹¹⁶ At the root of recent divergences in trend growth is the remarkable performance of the European periphery (Ireland, Finland and the Netherlands in particular) and the decline of Italy: against an average trend growth rate of 2.3 percent between 1994 and 1998 for the euro area as a whole, Ireland's trend growth rate was a staggering 9.2 percent, Finland and the Netherlands were above 3 percent, while Italy's trend growth rate was as low as 1.3 percent. Similar patterns emerge for employment and industrial production growth.

The ECB study also provides evidence of synchronization of shorter-term *cyclical* developments, as measured by the correlation of cyclical components of GDP growth in individual countries with those in the euro area as a whole.¹¹⁷ Apart from the usual reservations about trend/cycle decompositions, two observations are appropriate. First, this kind of analyses cannot detect the nature of shocks underlying cyclical movements. The theory of optimal currency areas, however, suggest that giving up exchange rate flexibility is costly in terms of output stabilization, only in the presence of asymmetric *real* shocks. The overall degree of synchronization is not necessarily informative about the frequency and magnitude of these shocks, relative to financial ones.

Second, the evidence shows that synchronization diminishes dramatically in the presence of easily identifiable, *large* asymmetric shocks, such as the process of German unification. As suggested by our previous work on the subject,¹¹⁸ the 1992-93 EMS crisis serves as a sober reminder of the destabilizing potential of policy conflicts that may arise in those (luckily rare) circumstances.

Independent of the nature of shocks, an increase over time in the degree of cyclical synchronization cannot but represent good news for the ECB, by reducing the scope for political dissonance on its policy stance. Will regional divergences in the euro zone become less pronounced over time? One thesis is that this will be a *result* of the common currency. The argument is that the elimination of exchange risk and the development of an integrated market for securities will provide growing opportunities to diversify portfolios, stimulate trade, and enhance integration. An extreme version of this view holds that, ultimately, EMU will *endogenously* become an optimum currency area even it is not currently so.¹¹⁹ Yet, it has been recently observed that the significantly higher degree of business cycle synchronization across US regions relative to Europe can hardly be ascribed to the stricter degree of monetary (and fiscal) coordination in US - structural economic features play a much bigger role. So, European cyclical synchronization cannot be expected to stem from monetary reform *per se*.¹²⁰ Then, the presence of unemployment and income differentials across countries and regions may well generate powerful incentives for intra-Eurozone migration, unless the system of EU-wide redistributive transfers is enlarged and revamped.¹²¹

Recently, EMU watchers have focused on a different dimension of economic asymmetry in Europe. Because of relevant differences in the way banking and financial intermediaries operate in the euro area countries, the argument goes, there could be some heterogeneity in the national mechanisms of transmission of ECB monetary policy, so that a centralized policy impulse can have asymmetric repercussions on the economies of the member states. This issue has potentially far-reaching implications for the conduct of ECB policy, especially when the UK and the other “out” countries in the EU join EMU.¹²²

Consider for instance the “textbook” interest rate channel of monetary transmission, according to which monetary policy modifies the cost of capital and borrowing conditions, thus affecting demand for durables consumption and investment. Three possible factors generate asymmetries in this mechanism across countries.

The first consists of differences in the diffusion of consumer borrowing - borrowing that increases the sensitivity of consumption to interest rates, and therefore magnifies the impact of monetary policy on aggregate demand. In light of this consideration, we should expect interest rate movements to have a stronger impact in the Nordic countries and the UK than in Italy, France and Belgium. In the former group of countries, the use of consumer credit is widespread and the ratio of financial liabilities to disposable income is around 100 percent (for comparison, the corresponding ratio in the US is 90 percent). The opposite pattern characterizes the second group of countries, where the ratio of households’ financial liabilities to disposable income is much lower, between 30 and 50 percent.

The second asymmetry reflects differences in the level of public debt, a key determinant of net interest incomes as a share of disposable income. By increasing interest income of households, an interest hike in high-debt countries may actually raise - not reduce - spending. The third asymmetry arises from the percentage of short-term (or floating-rate) debt in private sector financial liabilities. For instance, households’ borrowing in the UK and Italy is largely short-term or indexed to short-term rates, while short-term firms’ borrowing is sizable in the UK, Italy, Belgium and France, relative to other European countries. Combining the three factors, monetary policy (through the interest rate channel) could be expected to be particularly effective in UK, and relatively ineffective in France. Italy is a mixed case, as the above effects may compensate for each other.

A rather different picture emerges if we allow for a credit channel in the transmission of monetary policy, according to which a liquidity squeeze that reduces the supply of bank loans is

more effective, the lower the substitutability of bank credit with bond issuance.¹²³ The focus is on the development of markets for loans as an alternative to bank credit. On these grounds, there is an apparent divergence between continental Europe, with a high share of bank loans in total debt liabilities, and the UK, where this share is only 50 percent (compared with 30 per cent in the US). Credit channel theories also suggest that monetary policy is more effective, the higher the proportion of small firms and small banks. This is because smaller firms are more likely to be liquidity constrained and depend on banks for their financing, while smaller banks are less likely to use bond holdings as a buffer to insulate their loans' portfolio.¹²⁴

Finally, there are striking national differences in the timing of the response of bank lending rates to changes in key interest rates. This response is rather fast in the UK, due to the presence of competitive securities markets, but slow in countries where banks appreciate long-term relationship with customers, as banks may be less prone to transfer interest rate shocks onto borrowers. In Germany, for instance, it takes one quarter for bank rates to adjust by 36 basis point in response to a one percentage permanent change in key interest rates, and the adjustment is incomplete even after one year. The adjustment is even slower in France, where interest rates adjust by only 60 basis points after one year.¹²⁵ The credit channel is also to be considered particularly important in Italy (where nonbank finance is virtually unavailable, and the small-firm sector is large), but unimportant in the UK (for the opposite reasons). France is somewhat similar to Italy, the Netherlands and Belgium similar to the UK, while Germany is somewhere in between.

At this stage, it is difficult to assess the practical relevance of the above considerations. On the basis of the evidence on the features of national financial markets, one could expect monetary policy to have a somewhat homogeneous impact in France, Germany and Spain. In Italy a strong credit channel is compensated by a weak interest rate channel, while the opposite is true for the UK. The econometric evidence is mixed. Some models suggest that the UK and Italy are the countries where monetary policy has the strongest impact on output, Spain (followed by Belgium and the Netherlands) being the country where the impact is smallest. The impact on inflation is

large in Belgium and Italy, and is negligible in Austria. Conversely, VAR models detect differences in the national response to a monetary shock, but these tend not to be sizeable. The impact from monetary shocks tends to be similar in Germany, France and UK, small in Spain and high in Sweden and Italy.¹²⁶

It has been argued that these asymmetries will tend to disappear with the development of deeper pan-European financial markets, and that a necessary condition for this to happen is to dismantle regulatory and political barriers to cross-border mergers (particularly among banks). However, even if this necessary condition is satisfied, national asymmetries may not disappear quickly, to the extent that they are related to structural differences among national financial markets, such as discrepancies in legal structures or bankruptcy law.¹²⁷

Consider finally the extent of price asymmetries in EMU. Figure 4 plots the index of dispersion of inflation rates among euro countries.¹²⁸ It is apparent that the trend reduction of dispersion in the 1990s bottoms out in the first half of 1997. Most of this rebound in inflation dispersion can be explained by the acceleration of services prices in high-growth countries such as Spain, the Netherlands, Finland, Ireland and Portugal, together with a divergent behavior of the most volatile components of the CPI. With the important exception of Italy, inflation has been above the euro area average in the countries with the higher growth rates. Differences in core inflation across countries shrink until the second half of 1998 and rebound afterward, although at a lesser extent than differences in overall CPI performances.

INSERT FIGURE 4 HERE

The Eurostat data also provide information about national differences in the price *level*, both aggregated and disaggregated by category of goods, updated to 1996. The analysis of this evidence is relevant to monetary policy especially early in the life of EMU, when relative prices may move significantly in response to the new economic environment, affecting the rate of inflation directly and indirectly, through possible repercussions on wages. Differences in the CPI

reflect a variety of factors: transportation costs, indirect taxes, market segmentation, and search costs may hamper convergence in the prices of tradables, while income levels, as a proxy for the productivity in the tradable sector, as well as the degree of labor market integration influence the relative price of non-tradables.

Differences in Europe are large (see Figure 5). For example, in 1996 the German CPI was 32% higher than in Italy. While to some extent CPI differences in Europe reflect the level of per capita GDP, there is a striking degree of homogeneity among Germany, France, the Netherlands, Belgium, Austria and Luxembourg.¹²⁹ This may be an indicator of the comparatively high level of economic integration that the continental area of Europe has already achieved, relative to the periphery. Preliminary work on disaggregated price indexes by the Bank of Italy shows that, reassuringly, the dispersion of the price of tradable goods is lower than the dispersion of the price of services, and second, that the dispersion of both tradables and non-tradables visibly fell between 1990 and 1993, but remained stable between 1994 and 1996.¹³⁰ This is prima facie evidence on the effects of the exchange rate crisis in 1992-93 on relative price adjustment in Europe, a topic that merits further consideration. The open issue is to what extent the introduction of the euro will further decrease differences in tradable prices.

INSERT FIGURE 5 HERE.

13. Fiscal vulnerabilities and the SGP

Within the framework of the Treaty of Amsterdam, budgetary policy lies exclusively within the purview of the Member States of EMU. However, the set of rules and coordinating procedures included in the SGP¹³¹ limit the conduct of national fiscal policies in the euro area. Ultimately, the budgetary rules hinge upon the basic principle that EMU Member States shall avoid excessive government deficits and shall commit themselves to a medium-term objective close to budget balance or surplus.

In general, a national government deficit is deemed excessive if it is above 3 percent of GDP, while government debt is excessive if it is above 60 percent of GDP. There are a few exceptions to the above rules,¹³² and the complex procedure to ascertain whether a country runs an excessive deficit involves among other things a qualified majority vote in the ECOFIN Council. In practice, these elements may make the application of the excessive deficit procedure somewhat more discretionary, i.e. less automatic upon crossing the deficit threshold, than may appear.¹³³

No one would challenge the general principle that sound finances represent a prerequisite for the stability of a monetary union. What is controversial instead is whether the specific rules of the SGP represent the most appropriate way to promote and enforce fiscal discipline. Specifically, several commentators¹³⁴ have argued that the numerical (i.e. not cyclically-adjusted) deficit limits of the SGP do not provide sufficient flexibility to cope with cyclical downturns - thus enhancing the risk of contractionary bias in the euro area - and that they cannot be used as a substitute for policy coordination. Also, by focusing exclusively on the size of fiscal imbalances, the SGP overlooks the composition of the deficits. Recent literature, however, provides empirical evidence according to which fiscal adjustments which rely primarily on spending cuts on transfers and public wages are more successful in leading to a persistent reduction of the deficit - and may actually have an expansionary macroeconomic impact in the short run - than fiscal adjustments based on tax increases and cuts in public investment.¹³⁵ Also, it may well be possible that, in the practical implementation of the excessive deficit procedure, public investment be given a different weight than public consumption and transfers, in light of the different impact on future budget deficit and financial stability.

Is any EMU country at risk of transgressing the SGP thresholds and run excessive deficits? Figures 6 and 7 plot official forecasts over the period 1999-2002 for, respectively, the ratios of government surplus to GDP and the ratio of public debt to GDP in the euro area, as reported in the May issue of the ECB Bulletin and based on the national programs of fiscal consolidation¹³⁶ of the EU members, both inside and outside the euro area. Three points are worth emphasizing:

First, all countries expect to remain well below the SGP threshold for excessive deficits, but the largest economies of the euro area forecast medium-term deficits far from the target of balanced budgets or surpluses (the forecasted deficits as shares of GDP are 1% in Germany in 2002, 0.8% in France in 2002 and 1% in Italy in 2001). Second, debt to GDP ratios are expected to fall slowly for all EMU countries, but Italy, Belgium and - to a lesser extent - the Netherlands remain above the reference value of the SGP. Third, the EU members currently outside EMU (UK, Greece, Sweden and Denmark) expect to perform well in terms of the SGP criteria, with the notable exception of the debt performance in Greece.

INSERT FIGURES 6 AND 7 HERE

The projected figures appear to be realistic contingent on a scenario of euro area-wide low interest rates (thus reduced interest payments), continuing political support for fiscal adjustment, and near-potential growth. If the latter element turns out to be excessively optimistic, so that some countries pierce the reference values of the SGP, the key unknown is the extent to which the ECOFIN Council will allow for cyclical contingencies in assessing whether current deficits are “excessive”.

At face value, the data suggest that the process of fiscal consolidation in Europe - and especially in the core countries of EMU - is expected to proceed at a somewhat relaxed pace. As most countries expect to approach the balanced-budget target only at the end of the forecasting horizon, there is virtually no room for emergency budgetary responses to unanticipated contingencies. The ECB finds the prevailing approach to fiscal stability in the euro area “minimalist”,¹³⁷ i.e. an attempt to comply with the letter of the SGP while ignoring its spirit.¹³⁸ It has been correctly observed that the real problems will lie ahead, with pension and health expenditure expected to increase by about seven percent of GDP between now and 2030 due to demographic trends. However, in the short term the “minimalist” approach is perhaps the only feasible option for several European economies that have already undergone a drastic process of consolidation to meet the convergence criteria required to qualify for EMU membership, and

have experienced a severe growth slowdown and a plunge of industrial confidence in the aftermath of the Asian crisis.

14. Conclusion

At the end of our reconstruction of the new economic and financial landscape that is emerging in Europe, and the policy debate accompanying the ongoing changes, three considerations stand out.

First, after many decades of experimentation in monetary cooperation, EMU has been heralded as the endpoint of the long-lasting quest for financial stability and the catalyst for further economic integration in Europe. If one had to judge by its early performance, EMU is indeed delivering on its promises. The switch to a common currency has apparently enhanced market integration, as witnessed by the smooth and swift take-off of a pan-European money market, as well as by the growth of the euro bond market. Despite the many concerns expressed in the past, the historical break induced by the creation of the euro and the changeover process have not brought about financial and systemic instability.

Second, despite these positive elements, the fact remains that EMU was born in a context of substantial market segmentation, regional diversity, fiscal heterogeneity, let alone cultural, legal and institutional diversity. Traces of national segmentation appear even in the most integrated market for overnight liquidity, and the extent of home bias becomes increasingly predominant as one moves from the bond and equity market to the banking system. The elimination of currency risk and a common monetary stance may well contribute to diminishing the asymmetries in the euro area over time. But all available evidence suggests that, in the foreseeable future, market segmentation and national divergences are likely to provide the context of monetary policy. Apart from considerable uncertainty about the degree of synchronization of national business cycles and the effectiveness of a centralized policy in the presence of regional disparities, the ECB faces the issue of possible regional asymmetries in the transmission of its monetary policy. Absent effective collaboration among supervisory agencies, there is also a risk that the new system may

reinforce national asymmetries, for instance by imparting a bias against cross-border mergers in the banking sector.

Third, the monetary strategy chosen by the Eurosystem has raised several complaints about the degree of transparency, the effectiveness of its communication strategy, and accountability. Yet, the short track record of the new institution suggests that, on the field, its choices have been the right ones. Thus far, the Eurosystem has pursued its mandate in a balanced way, respecting its anti-inflationary objective while adopting monetary policies that are appropriate for the cyclical conditions of the Euro area. In particular, despite heavy criticism, the Eurosystem's posture of detachment from exchange rate management can be seen ex-post as a key element in halting the economic slowdown and facilitating the process of recovery in Europe.

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FOOTNOTES

¹ While extensive, this list of topics is certainly not exhaustive. For a wider window on the EMU debate and an update of the information presented in this paper, the reader is referred to the contributions available online on the Euro Homepage maintained by Giancarlo Corsetti at www.econ.yale.edu/~corsetti/euro/.

² The lock-in of exchange rates represents the first step toward full monetary integration. For three years since 1999 all money values in the euro area will be expressed either in euros or national currency on a voluntary basis. Euro notes and coins will be introduced on January 1, 2002. Between that date and June 30, 2002, both euros and national currencies will circulate in parallel. Beyond June 30, 2002 national notes and coins will be exchangeable only at banks. The possibility of shortening the period of parallel circulation of national currencies and euros is under discussion at the time of writing.

³ Duisenberg (1998b).

⁴ See the discussion in Obstfeld (1998a,b).

⁵ See Saccomanni (1999).

⁶ Trans-European Automated Real-time Gross settlement Express Transfer.

⁷ The only blemish on record is the January 29 breakdown of the link between the French RTGS system and TARGET. Also, because of the high transaction volume and a few minor technical problems, the ECB decided to extend the TARGET deadline by one hour on January 11 through 29. Normal working hours have been reestablished ever since.

⁸ On the EMS crisis see Eichengreen and Wyplosz (1993) and Buiters, Corsetti and Pesenti (1998a,b).

⁹ Svensson (1994, p.467), emphasis added.

¹⁰ See Kenen (1995).

¹¹ As the exchange rate convergence criterion was conceived having in mind fluctuation margins around central parities as large as 2.25 percent in each direction, its meaning became less clear with the 1993 widening of the currency bands. In 1995 the European Monetary Institute decided to include in its analysis of convergence an “ex post judgment” on the degree of exchange rate stability inside the new bands. See EMI (1998, p.37).

¹² The Eurosystem comprises the ECB and the 11 national central banks of the euro area. The ESCB comprises the ECB and the national central banks of all EU countries.

¹³ Since the HICP may include a measurement bias, the rate of growth of the HICP may not coincide with the true rate of inflation. Because the HICP is a relatively new index, the sign and magnitude of its measurement bias is largely unknown. For this reason, the ECB is reluctant to announce a lower bound in the definition of price stability, before having learnt more about the properties of its price index.

¹⁴ See Angeloni, Gaspar and Tristani (1999, p.14). These authors also discuss “other reasons [than continuity with the Bundesbank] to allow for small but non-zero inflation rate” put forward in the literature, namely, nominal and real rigidities in prices and wages and the lower bound at zero to nominal interest rates.

¹⁵ ECB Monthly Bulletin, January 1999, p.47.

¹⁶ See Angeloni, Gaspar and Tristani (1999, p.15).

¹⁷ See Duisenberg (1998a).

¹⁸ See Mishkin (1999).

¹⁹ The basic formula for the derivation of the Bundesbank's monetary targets was: growth of (real) production potential + medium-term price assumption + addition/deduction for the longer-term change in the velocity of circulation of money = growth of the money stock which is consistent with production potential. See Deutsche Bundesbank (1995, p.81).

²⁰ Bundesbank Monthly Report, January 1998.

²¹ See ECB Monthly Bulletin, April 1999, pp. 27-40. Angeloni, Gaspar and Tristani (1999) group indicators in five classes: gap measures (for instance, output gap, capacity utilization, unemployment); labor cost measures (wage dynamics, unit labor costs); international prices and exchange rates; asset prices (yield curve, interest rates); and measures of expectations (business and consumer confidence surveys).

²² ECB Monthly Bulletin, January 1999.

²³ The June Bulletin includes a short section on inflation forecast by the IMF and the OECD. See CEPR (1999b) for a discussion of this point.

²⁴ See for instance Mishkin and Posen (1997).

²⁵ See Duisenberg (1998a).

²⁶ According to Angeloni, Gaspar and Tristani (1999), the ECB is determined to publish its internal econometric models (although not the forecasts) as soon as they have been sufficiently tested. Currently, the ECB relies on a quarterly macro-econometric model for the euro area and, in conjunction with the NCBs, a quarterly multicountry model.

²⁷ Bundesbank Monthly Report, January 1998. See also the brief but effective discussion by Dornbusch (1997) of the intellectual debate between the Bundesbank president Tietmeyer and Otmar Issing before EMU.

²⁸ The decision-making body of the ECB, the Governing Council, comprises all the governors of the 11 Eurosystem NCBs plus the Executive Board (President, Vice-President, plus four other members). Decision-making in the euro zone thus currently involves 17 members (and will involve 21 members when all EU countries join EMU). By comparison, the Bank of England's Monetary Policy Committee and the Bank of Japan's Policy Board both have 9 members.

²⁹ See e.g. Buiter (1999b).

³⁰ Tabellini (1998) goes as far as proposing that the EP should take the initiative on ECB transparency and accountability, for instance by demanding the ECB to publish its internal inflation forecasts in the form of an inflation report.

³¹ The quotations are from Issing (1999b, p.12 and 29). The same concept is expressed in many other documents of

the ECB.

³² See for instance Goldman Sachs, European Weekly Analyst No.99/24, 25 June 1999.

³³ See for instance Favero and Rovelli (1999).

³⁴ For a discussion of the latter thesis, see the paper by Lawrence Ball in this issue of BPEA.

³⁵ See Duisenberg (1999b).

³⁶ See CEPR (1999b, p.1).

³⁷ Similar considerations were made in the aftermath of the December 1998 coordinated cut. See for instance Martin and Kathleen Feldstein, "Ireland's euro struggle," Boston Globe, Tuesday, January 5, 1999.

³⁸ ECB Monthly Bulletin, August, p.5. The text continues as follows: "careful monitoring will be necessary in the coming months, particularly in view of the fact that the dynamic growth of the most liquid components of M3 and of credit to the private sector implies that euro area residents are not facing liquidity constraints at present".

³⁹ Assessing the potential inflationary implications of the high rate of growth of credit to households and corporations that continued from 1998 throughout the first months of 1999 is one key to the ECB analysis of perspective inflationary risk. Credit to the private sector is increasing at rates exceeding 10%. Reading the various issues of the ECB bulletin, potential explanations include low interest rates (stimulating bank lending), asymmetric local conditions (high growth rates and booming real estate markets in some countries), the financing of mergers and acquisitions as well as rising inventories, changes in tax regulation at the turn of the year and, above all, the financing of investment abroad by euro residents. Stressing this last item, the ECB points out that the growth of private credit does not necessarily translate into domestic spending. The relative importance of the above explanations is however unclear.

⁴⁰ See Deutsche Bundesbank (1995, p.79).

⁴¹ See Issing (1997, p.71).

⁴² See Angeloni, Cottarelli and Levy (1994) and Monticelli and Papi (1996).

⁴³ See for instance Fagan and Henry (1998).

⁴⁴ See Issing (1999b, p.18).

⁴⁵ See the discussion in Issing (1999b). A good example of the discontinuity in statistical information faced by the ECB is provided by the introduction of the new European System of Accounts 1995 (ESA 1995). The new system adopts many conceptual changes vis-a-vis past accounting schemes, affecting both the level and the rate of growth of GDP. Estimates of growth and external trade in the first quarter of 1999 have been substantially revised upwards with the new methodology (ECB Monthly Bulletin, August 1999, pp. 18-20).

⁴⁶ See Issing (1998).

⁴⁷ See Blinder (1998).

⁴⁸ See Duisenberg (1998a).

⁴⁹ In this respect, Lars Svensson writes: “the choice between inflation targeting and Bundesbank-like ‘pragmatic’ monetary targeting is, in effect, a choice between high and low transparency. Inflation targeting and pragmatic monetary targeting, in practice, imply similar policy decisions, but pragmatic monetary targeting implies that policy decisions are explained in terms of money-growth developments that are not essential for policy. [...] [T]he Eurosystem proposes a prominent role for an essentially irrelevant money-growth indicator in analysis and communication, but will keep secret the inflation forecast that will, in practice, be the decisive input in policy decisions.” See Svensson (1999, p.1).

⁵⁰ See Buiter (1999b).

⁵¹ The official reference on the monetary policy instruments and procedures of the Eurosystem is ECB (1998).

⁵² The Eurosystem may also use outright transactions, the issuance of debt certificates, foreign exchange swaps and the collection of fixed-term deposits.

⁵³ The longer-term operations are implemented instead through variable-rate tenders: the counterparties bid the amounts of money and the interest rates at which they want to enter into transactions with the NCBs. In the case of liquidity-providing tenders, the ECB lists the bids in diminishing order of offered rates: the bids with the higher interest rate have priority and are accepted until the total liquidity to be allotted is exhausted. In the early stage of EMU the allotment method was a “Dutch auction”, in which all tenders are satisfied at the lowest or “marginal” interest rate. This was done to avoid that smaller institutions with less information about market conditions were penalized *vis-a-vis* larger institutions. From March 24 onwards the method is an “American auction” in which successful bidders pay the rate they bid.

⁵⁴ See Bianchi et. al. (1999, p. 77).

⁵⁵ In the early stages of EMU some confusion regarding the allocation mechanism described above has resulted in a somewhat asymmetric allocation of liquidity across countries. In fact, institutions in countries such as Spain or Italy where the mechanism resulted less familiar had a tendency to be overcautious in their bids, reportedly acting under the presumption that sufficient collateral was required to cover the full extent of the bids. The asymmetry disappeared after the ECB clarified in a press release (on February 2) that availability of collateral was required only on the date of *settlement* of the tender, not at the time of the bids. See Bianchi et. al. (1999, p.78) and IMF (1999, annex 1).

⁵⁶ In previous years, the German central bank had moved back and forth from fixed- to variable-rate 14-day tenders. Before October 1992, the adoption of a combinations of fixed- and variable-rate operations (such as the “mixed double-decker” since September 1988, involving 1-month fixed-rate tenders combined with a 2-month variable rate tender) was meant to let markets influence interest rates while providing a clear signal as to where the central bank wanted interest rates to move.

⁵⁷ According to the “correspondent central banking model”, both Tier I and Tier II assets eligible for Eurosystem operations may be used in a cross-border context, implying that an institution can receive funds from the NCB of the country in which the institution is established by making use of assets located in another member state.

⁵⁸ At the end of March 1999 Tier 1 and 2 assets available for open market operations and payment system purposes were approximately EUR 5.2 trillion. Over 97% consisted of Tier 1 collateral. Government paper accounted for 76% of marketable collateral, securities issued by credit institutions for the 18%. Bonds and medium-term notes accounted for the 91% of the instruments, short-term notes for the 8%, and equity and other type of assets for the remaining 1%. See ECB Monthly Bulletin, May 1999, p.33.

⁵⁹ Repos and interbank liabilities are excluded.

⁶⁰ At the end of each day the reserve accounts with the NCBs are nonetheless required to be non-negative. At the end of the maintenance period reserves holdings in excess of required reserves are not remunerated (and if they are transferred to the Eurosystem through the deposit facility, they are remunerated at the lowest overnight rate), while failure to meet the reserve requirements is subject to penalties.

⁶¹ For an analysis of TARGET see Prati and Schinasi (1999) and Garber (1998).

⁶² For cross-border payments TARGET competes in Europe with a number of alternative clearing systems: the system of the European Bankers' Association, Euro Access Frankfurt owned by the Landeszentralbank in Hessen, Germany, and the French Paris Net Settlement.

⁶³ Bank of England (1999, ch.3 par.25).

⁶⁴ Euro Over-Night Index Average. The EONIA is calculated as a weighted average of all overnight unsecured lending transactions initiated within the euro area by a panel of 57 declaring banks.

⁶⁵ For maturities beyond overnight, the benchmark euro interest rate and the preferred price source for derivative contracts is the EURIBOR (measured in the euro area), whose spread over the equivalent euro LIBOR (measured in London) is usually within 1 basis point.

⁶⁶ Elements of market segmentation are even more evident in the secured (repo) interbank market. National repo rates have largely converged in the euro area, but the development of a single European market is undermined by the absence of links between national securities settlement systems, hampering the cross-border use of collateral (IMF (1999)).

⁶⁷ See IMF (1999).

⁶⁸ See ECB Monthly Bulletin, April 1999, pp.11-13.

⁶⁹ See ECB Monthly Bulletin, July 1999, pp.15-17.

⁷⁰ In the past, some commentators have predicted that fine-tuning interventions to smooth interest rates would be difficult to execute, due among other reasons to the decentralized implementation of monetary policy (CEPS (1998), p.31).

⁷¹ See BIS (1999).

⁷² See BIS (1999, p.10).

⁷³ A comprehensive overview and analysis of public debt management in the euro area is provided by Piga (1999), who bases its discussion on the results of a survey of European debt managers and market makers. Piga discusses in detail many of the issues touched upon in the section.

⁷⁴ See for instance the section on sovereigns in Deutsche Bank (1999).

⁷⁵ The benchmark interest rate is the minimum interest rate investors will demand for investing in a non-Treasury security. It is generally tied to the yield to maturity offered on a comparable-maturity Treasury security that has been recently issued. This is referred to as "on-the-run" or current coupon issue, or, more simply, benchmark issue.

⁷⁶ The regulation of primary dealers is not subject to the European Investment Service Directive, establishing that

domestic markets can be accessed by EU financial institutions regardless of their location. A location requirement for primary dealers is lawful, but in open contrast with the spirit of the Directive. This is a clear indicator that regulation of primary dealers in public debt is viewed by European governments as a highly sensitive political issue.

⁷⁷ For instance, in a single issue, Italy sold 10-year *Buoni Pluriennali del Tesoro* for EUR 23 billion - to date the largest issue in euro-denominated bonds.

⁷⁸ See Republic of Italy (1999). Over the same period, the weight of bonds indexed to short-term rates has decreased by more than 5 percentage points of GDP, with a significant impact on the duration of the Italian debt.

⁷⁹ Mercato Telematico dei Titoli di Stato.

⁸⁰ See Piga (1999).

⁸¹ See "De Silguy proposal may confound skeptics: An agency issuing public debt for the euro-zone is a long terms prospects", *Financial Times*, August 4, 1999.

⁸² The ECB provides a regularly updated report on the effects of treasuries activities on liquidity. Countries are classified in three groups according to the volatility and size of these effects. The first group includes Austria, Belgium, Finland, Germany, Luxembourg and the Netherlands, where the overnight balances on the Treasury's account with the central bank are low or close to zero. The effect on liquidity is moderate for the second group, including Ireland and Portugal, where it is considerable for Italy, Spain and, to a lesser extent, France. See ECB Monthly Bulletin, July 1999.

⁸³ Huberman (1997, 1999) documents a significant home bias at local level based on US investors holding of claims on Regional Bell Operating Companies. Schultz (1996) documents that 43% of funds invested in defined contribution plans is held in employer stocks. Covall and Moscovitz (1997) find that US investment managers exhibit a strong preference for firms with headquarters in the area in which they are also based. For a discussion, see Hess and van Wincoop (in press) and Pesenti and van Wincoop (1999).

⁸⁴ See Bank of England (1999) for a discussion.

⁸⁵ The removal of the many obstacles hindering financial market integration is the objective of the European Commission's action plan for a single financial market. Such a plan has recently been given high priority. Its target is to have most of the necessary pieces of the legislation in place by the year 2002. A partial list of the items in the agenda of the plan clearly illustrates the complexity of the task faced by European legislators. These items include: updating the Investment Service Directive, as a regulatory framework for cross-border provision of investment services (authorization, supervision, safeguards to counter market manipulation); simplifying requirements to raise capital on a EU-wide basis (especially regarding the mutual recognition of prospectuses); improving the comparability of financial information (fostering the adoption of International Accounting Standards); defining a framework for the mutual acceptance and enforceability of cross-border collateral (whereas at present there is a high risk of invalidation of cross-border collateral arrangements); defining a single market framework for supplementary pension funds (rationalizing investment restrictions and simplifying cross-border activities); and, finally, eliminating cross-border tax obstacles and distortions, especially on life and pension products.

⁸⁶ See CEPR (1999a).

⁸⁷ In the first half of the 1990s the share of bank loans in total debt liabilities of non-financial enterprises was 85.1% in Germany, 80.2% in France, and 94.6% in Italy. For the purpose of comparison, the analogous share was only 32.4 in the US and 49.4 in UK. Extensive use of credit financing is not an exclusive feature of small firms. In 1996 the share of loans to liabilities of the 239 world largest manufacturing companies was 63.2 in Germany, 44.3 in France,

73.9 in Italy, while 34.1 in the UK and only 9.4 in US. See CEPR (1999a, par.1.3).

⁸⁸ See e.g. White (1998).

⁸⁹ See e.g. CEPR (1999a, ch.2).

⁹⁰ There are a few exceptions. In France, for instance, the asset market share of the top five firms fell from 42.5% to 40.3% between 1990 and 1997 (ECB Monthly Bulletin, April 1999, Table 3 p.46).

⁹¹ See ECB (1999, Table 8). For an analysis of the benefits of mergers and acquisitions see the case study by Focarelli, Panetta and Salleo (1999).

⁹² See ECB (1999).

⁹³ See for instance the analysis in CEPR (1999b).

⁹⁴ See e.g. Favero, Giavazzi and Flabbi (1999).

⁹⁵ See for instance the analysis of the unsuccessful double take-over involving BNP, Société Generale and Paribas by Alessandro Penati, "Le banche tra feudi e mercato", Corriere della Sera, August 13, 1999.

⁹⁶ See the considerations by Padoa-Schioppa (1999).

⁹⁷ IMF (1998).

⁹⁸ On these issues, see IMF (1999).

⁹⁹ BIS (1999, p.17). For a discussion of the international role of the euro see e.g. ECB Monthly Bulletin, August 1999, Portes and Rey (1998) and Rogoff (1998).

¹⁰⁰ The pre-1999 synthetic euro is the weighted basket of the currencies of the member states of EMU.

¹⁰¹ In terms of volumes, data released by the Japanese Ministry of Finance show that between January 1998 and January 1999 Japanese investors purchased roughly JPY 7.3 trillion (more than USD 61 billion) worth of European debt. Of these euro-denominated positions, a significant JPY 568 billion were liquidated in February and March, contributing to accelerate the weakness of the euro. Interestingly, the trend has reverted afterward. By June 1999 the cumulative net purchases of euro-denominated debt since January 1998 were up to a staggering JPY 9.3 trillion (USD 81 billion).

¹⁰² See Buiter (1999a) for a presentation and discussion of the different arguments.

¹⁰³ The link between fiscal problems and euro weakness was most explicitly suggested by the ECB President in the aftermath of the surprise resignation of the German Finance Minister Oskar Lafontaine on March 11: "the possibility cannot be excluded that increased uncertainty about the political support for a stability-oriented monetary and fiscal policy has contributed to the weakening of the euro." Duisenberg (1999a).

¹⁰⁴ The ECOFIN Council is composed of the Ministers of Finance and Economy of the Member States of the European Union. It is responsible for deciding legislation regarding tax harmonization, financial liberalization and economic policy. The Council makes the final decision on many aspects of EMU, and it was on the basis of an ECOFIN report that heads of state and government decided which countries qualified for monetary union.

¹⁰⁵ In official comments the German Chancellor stressed that the decision to ease Italy's budget targets was "a one-off" and did not mean that any of the member states were departing from a strict budgetary course, the ECB President noted that Italy was not breaking the rules but warned against fiscal laxity spreading in EMU, and the ECB Member Otmar Issing said that Italy's decision sent "the wrong signal at the wrong time".

¹⁰⁶ This point is controversial in light of recent work on the "fiscal theory of price level". See Sims (1998).

¹⁰⁷ Consensus Forecasts, a monthly publication of Consensus Economics, London, has published forecasts for the euro area as a whole since August 1998. Before that, euro area forecasts can be approximated as weighted averages of the individual countries considered in the publication.

¹⁰⁸ See OECD (1999, p.44).

¹⁰⁹ See Giavazzi and Giovannini (1987).

¹¹⁰ For instance, Portes and Rey (1998) argue that under a "big euro" scenario in which the euro replaces the dollar as the main international currency for cross-Atlantic financial transactions Europe would reap a 0.2% of GDP gain (as a flow), the US would lose 0.04% of GDP, and Japan 0.07% of GDP. The gains for Europe would come mainly from decreasing costs on the bond markets. The losses for the US and Japan come from foreign exchange market transactions, since both countries are better off when the dollar is the vehicle currency.

¹¹¹ Issing (1999a, p.22).

¹¹² See e.g. Krugman (1999). The closest approximation to a validation of these fears was the aforementioned currency intervention of June 18, when the ECB sold yen against euros on behalf of the Bank of Japan: while technically acting as an agent of a BOJ concerned with the excessive strengthening of the yen, the ECB appeared to be hitting two birds with one stone.

¹¹³ Article 109 also states that the Council of Ministers may "conclude formal agreements on an exchange rate system for the ECU in relation to non-Community currencies", although in doing so it has to act unanimously on a recommendation from the ECB or from the Commission. See the discussion in Buiter, Corsetti and Roubini (1993), Buiter (1999b) and Svensson (1999).

¹¹⁴ See Buiter (1999a).

¹¹⁵ See Feldstein (1997).

¹¹⁶ For an analysis of these data see ECB Monthly Bulletin, July 1999, pp.39-42.

¹¹⁷ Angeloni and Dedola (1999) provide evidence on the role played by coordination of monetary policy (either formal or informal) in inducing convergence in cyclical and inflation movements over the 1990s.

¹¹⁸ See Buiter, Corsetti and Pesenti (1998a).

¹¹⁹ See Frankel and Rose (1998) and Frankel (1999).

¹²⁰ See Clark and van Wincoop (1999).

¹²¹ See Obstfeld and Peri (1999)

¹²² Dornbusch, Favero and Giavazzi (1998) and Favero and Giavazzi (1999) provide an excellent overview of these

issues. The key points they raise are synthesized in what follows.

¹²³ See Bernanke and Blinder (1988, 1992) and Bernanke and Gertler (1995).

¹²⁴ See Kashyap and Stein (1997).

¹²⁵ See BIS (1995).

¹²⁶ See BIS (1995), Gerlach and Smets (1995), Barran, Coudert and Mojon (1997), Britton and Whitley (1997), Dornbusch, Favero and Giavazzi (1998), Kieler and Saarenheimo (1998).

¹²⁷ See Cecchetti (1999).

¹²⁸ The dispersion indexes are computed as simple averages of the deviations in absolute value from the euro area mean, and plotted as 3-quarter moving averages. Data for Luxembourg are excluded. See also Banca d'Italia, *Bollettino Economico* 32, February 1999, pp. 34-35.

¹²⁹ See Bank of Italy (1999, p. 114).

¹³⁰ See Buttiglione and Veronese (1999).

¹³¹ Specifically, the SGP consists of a Resolution of the European Council (Amsterdam, 17 June 1997), in which the commitments of the Member States, the European Commission and the European Council are explicitly specified, and two ECOFIN Council Regulations of 7 July 1997 which clarify the implementation of the excessive deficit procedure and provide guidance on surveillance.

¹³² A deficit is not excessive if its ratio to GDP has declined substantially and continuously and reached a level that comes close to 3 percent. Similarly, the stock of debt is not excessive if its ratio to GDP is sufficiently diminishing and approaching the reference value at a satisfactory pace. Also, a deficit above 3 percent is not excessive if it is expected to be “temporary” and has occurred under “exceptional” circumstances such as a severe economic downturn. For a detailed account see ECB Monthly Bulletin, May 1999.

¹³³ If evidence of excessive deficit is found, the country is expected to undertake the appropriate corrective actions. If no corrective actions are taken, financial sanctions - in the form of nonremunerated deposits from a minimum of 0.2 percent of GDP to a maximum of 0.5 percent - are imposed. Such deposits are converted into a fine if the excessive deficit is not corrected after two years, otherwise they are returned to the country.

¹³⁴ Recent contributions on the costs and benefits of the SGP and the macroeconomic effects of fiscal consolidation include Beetsma and Uhlig (1997), Buitier, Corsetti and Roubini (1993), Casella (1999), Chari and Kehoe (1998), Corsetti and Pesenti (1999), De Grauwe (1998) and Eichengreen and Wyplosz (1998).

¹³⁵ See for instance Alesina and Perotti (1996).

¹³⁶ The programs are available online at ue.eu.int/emu/convergence/main.htm.

¹³⁷ ECB Monthly Bulletin, May 1999, p.59.

¹³⁸ In partial support of this interpretation, the records show a substantial amount of cosmetic measures to decrease current deficits below 3% of GDP. These include the postponement of cash outflows in a variety of ways. Before 1998, for instance, public pensions in Italy were paid every two months. Thus, December payment in one year recorded also the pensions due in January of the following year. By switching to monthly payments, the Italian

government engineered a once-and-for all (but only cosmetic) drop in the budget deficit. Also, the use of derivatives allows debt managers to reduce the flow of interest payment - a point contested by Piga (1999). Because of the low interest rates in 1999, exchange offers resulted in a decrease in the interest payment, at the expense of an increase in the stock of government liabilities. Of course, these measures cannot affect the fiscal stance in the long run, but are crucial in giving national government breathing space in the short run. In a world of second best, they may even be beneficial, to the extent that they result in a more sensible application of the SGP.

Table 1. Government Debt

Billions of euros	Outstanding stock at beginning of 1999			Estimated redemption and gross issuance for 1999		
	Total	Excluding T-bills	% Foreign owned	Redemption	Gross Issuance	Net Issuance
Austria	74.5	68.6	17	6.2	10.8	4.6
Belgium	183	143	6	19.5	23	3.5
Finland	43.6	41	6	1.7	1.7	0
France	616	561	16	41.7	80	38.3
Germany	961.9	951.7	51	68.7	107	38.3
Ireland	21.7	21.7	27	1.9	0.9	-1
Italy	1042.3	822.6	19	177.5	203.2	25.7
Netherlands	185.6	181.6	25	19.6	25.7	6.1
Portugal	59.5	58.1	29	4.5	6.4	1.9
Spain	280.2	185.7	15	16.2	35	18.8
Total	3468.3	3035	100	357.5	493.7	136.2

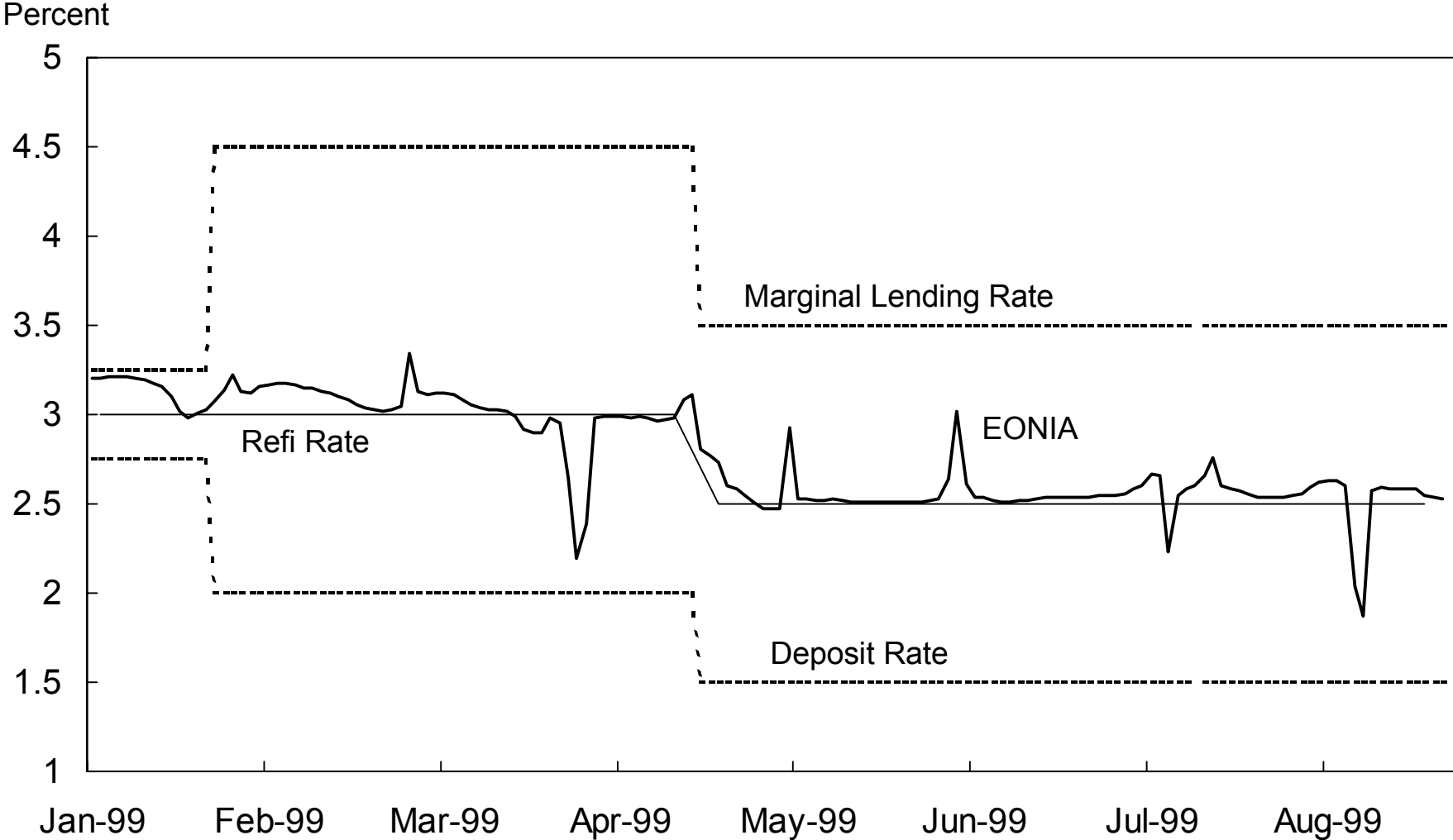
German data refer to December 1998. Redemption and Gross Issuance are estimated by Deutsche Bank. Data for Spain and Italy exclude T-bills.
 Source: Deutsche Bank, A guide to Euroland Bond Markets, May 26, 1999, and Ministries of Finance.

Table 2. Sovereign Yield Spreads Against the Bund

	Ratings		Yield Spread as of May 20 1999 for:			
	Moody's	S & P	2 years	5 years	10 years	30 years
Austria	Aaa	AAA	5	26	18	10
Belgium	Aa1	AA+	4	26	24	19
Finland	Aaa	AA	-10	19	19	
France	Aaa	AAA	8	12	12	4
Ireland	Aaa	AA+	14	21	18	
Italy	Aa3	AA	8	18	26	25
Netherlands	Aaa	AAA	2	12	15	7
Portugal	Aa2	AA	1	26	31	
Spain	Aa2	AA+	-2	20	26	15

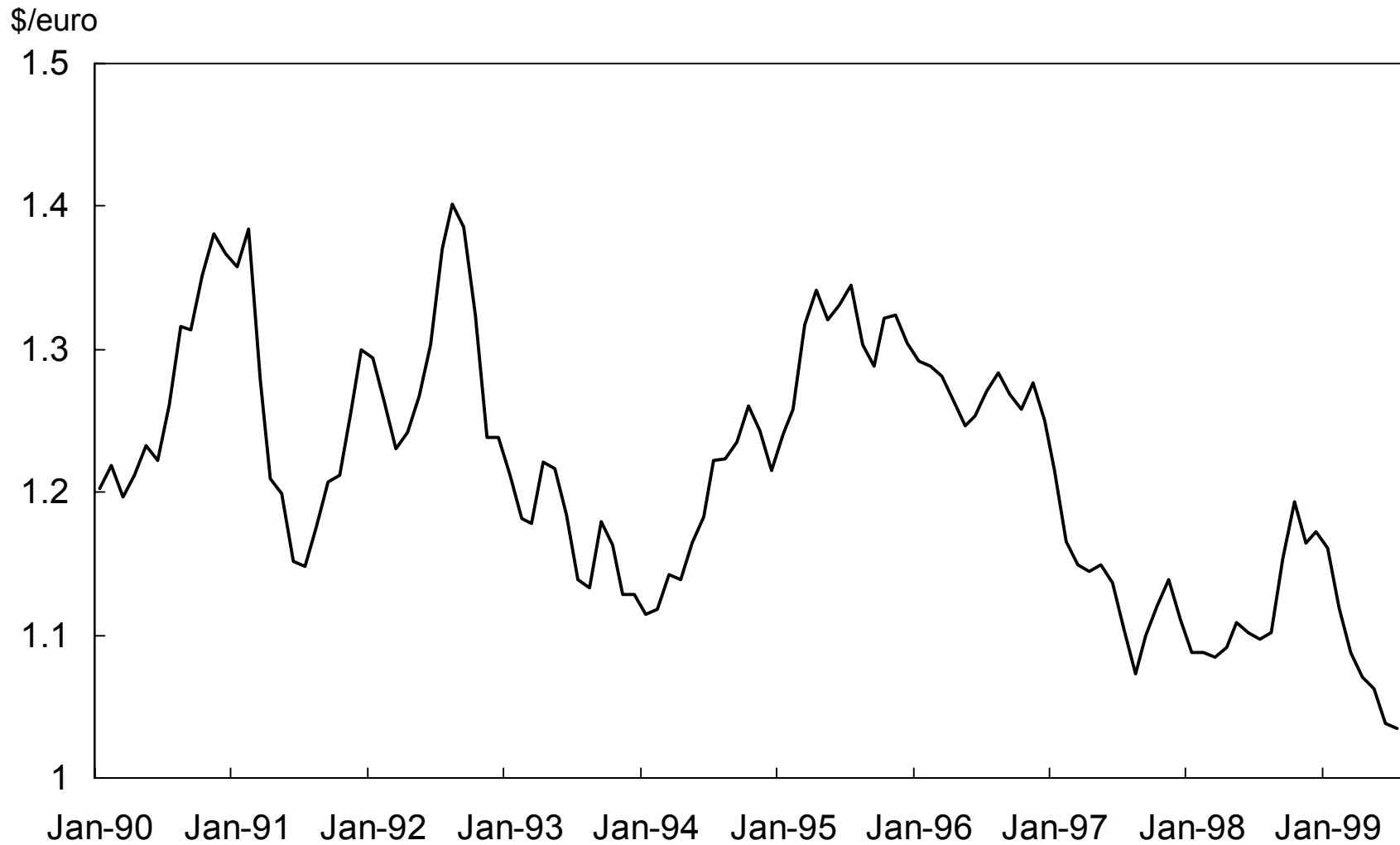
Source: Deutsche Bank, A guide to Euroland Bond Markets, May 26, 1999.

Figure 1. Interest Rates in the Euro Area



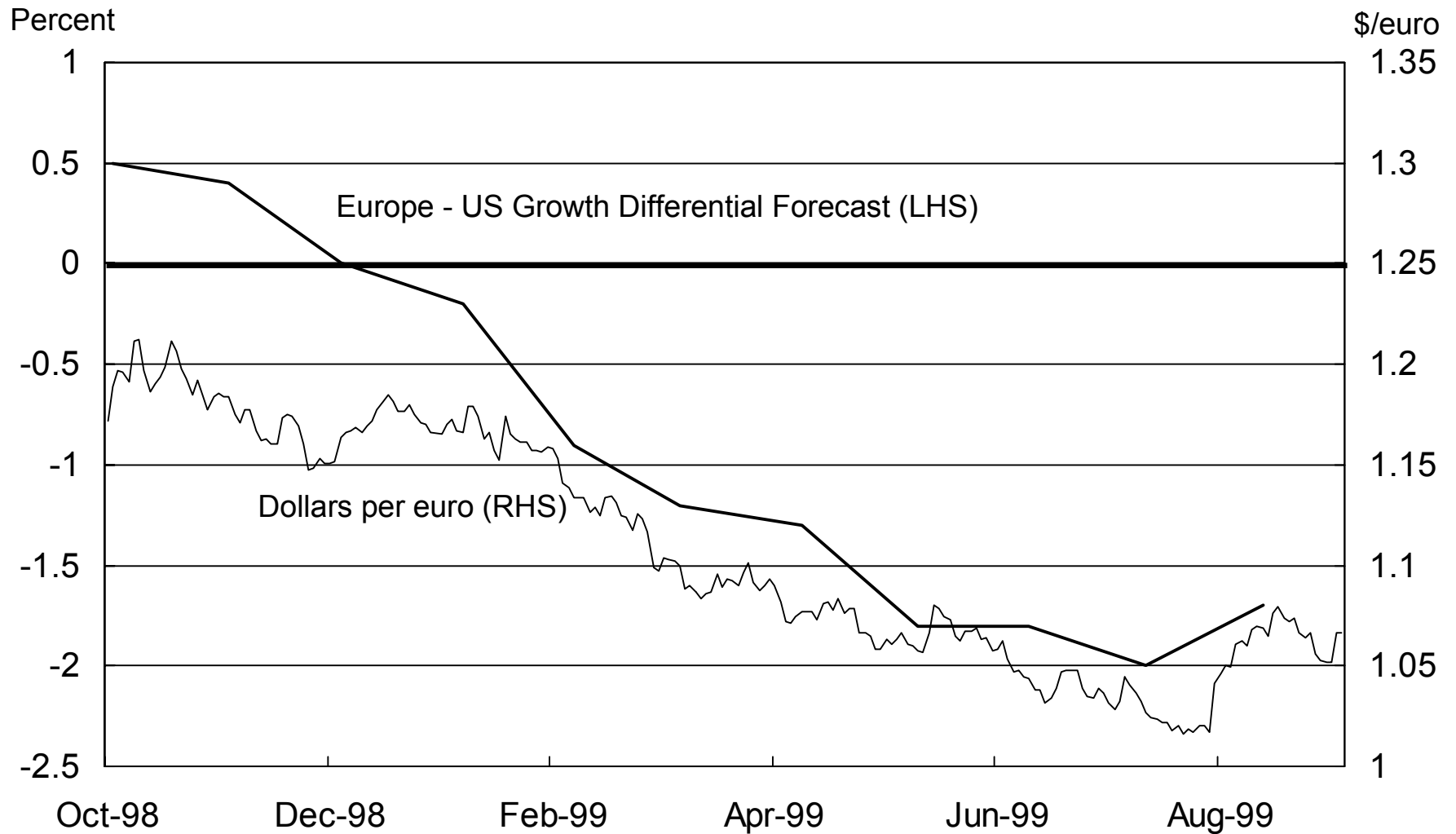
Source: European Central Bank

Figure 2. Dollar/Euro Exchange Rate since 1990



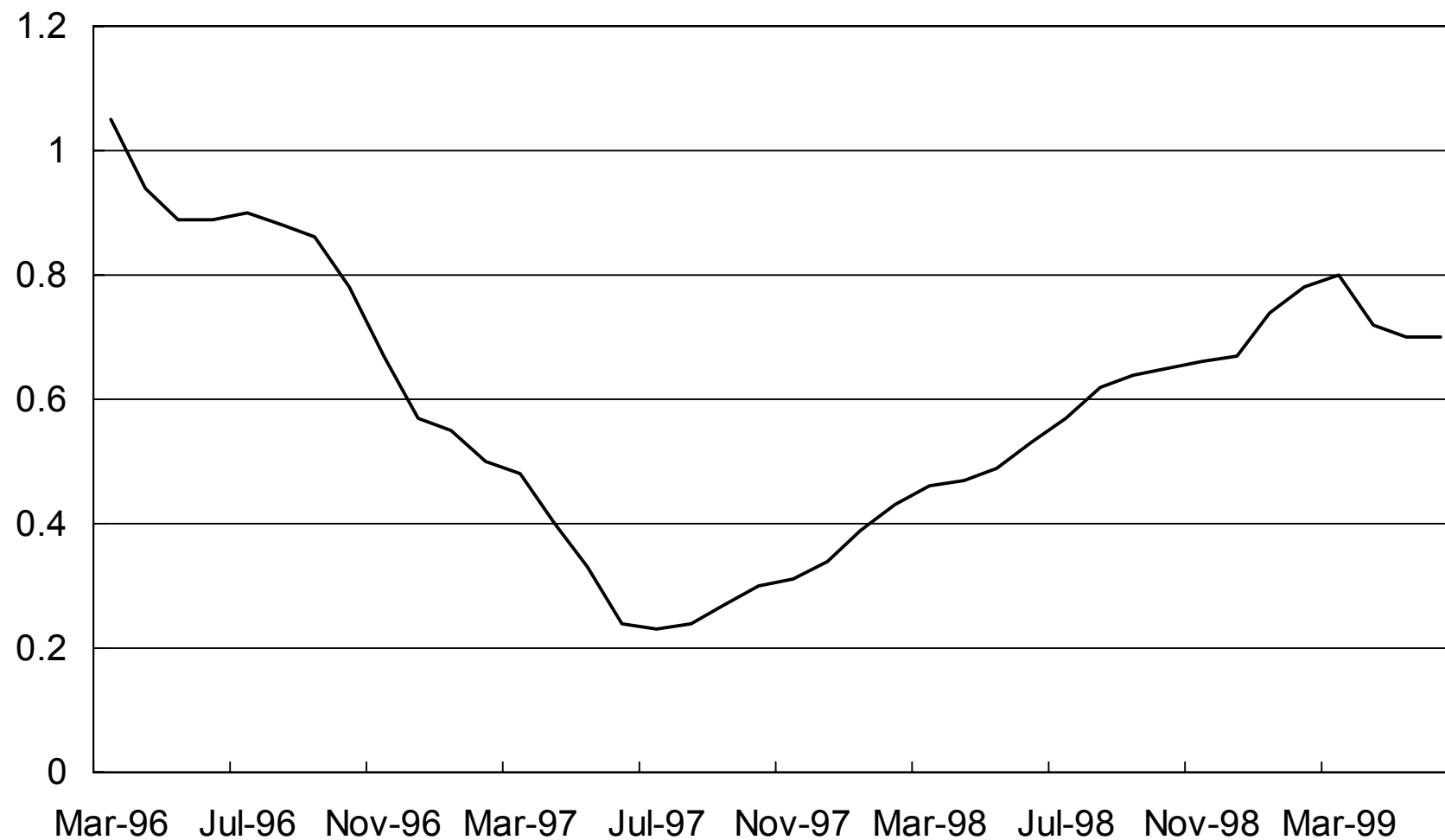
Source: Bank for International Settlements

Figure 3. Revisions to 1999 GDP Growth Forecasts and the \$/Euro Exchange Rate



Source: Consensus Economics, European Central Bank

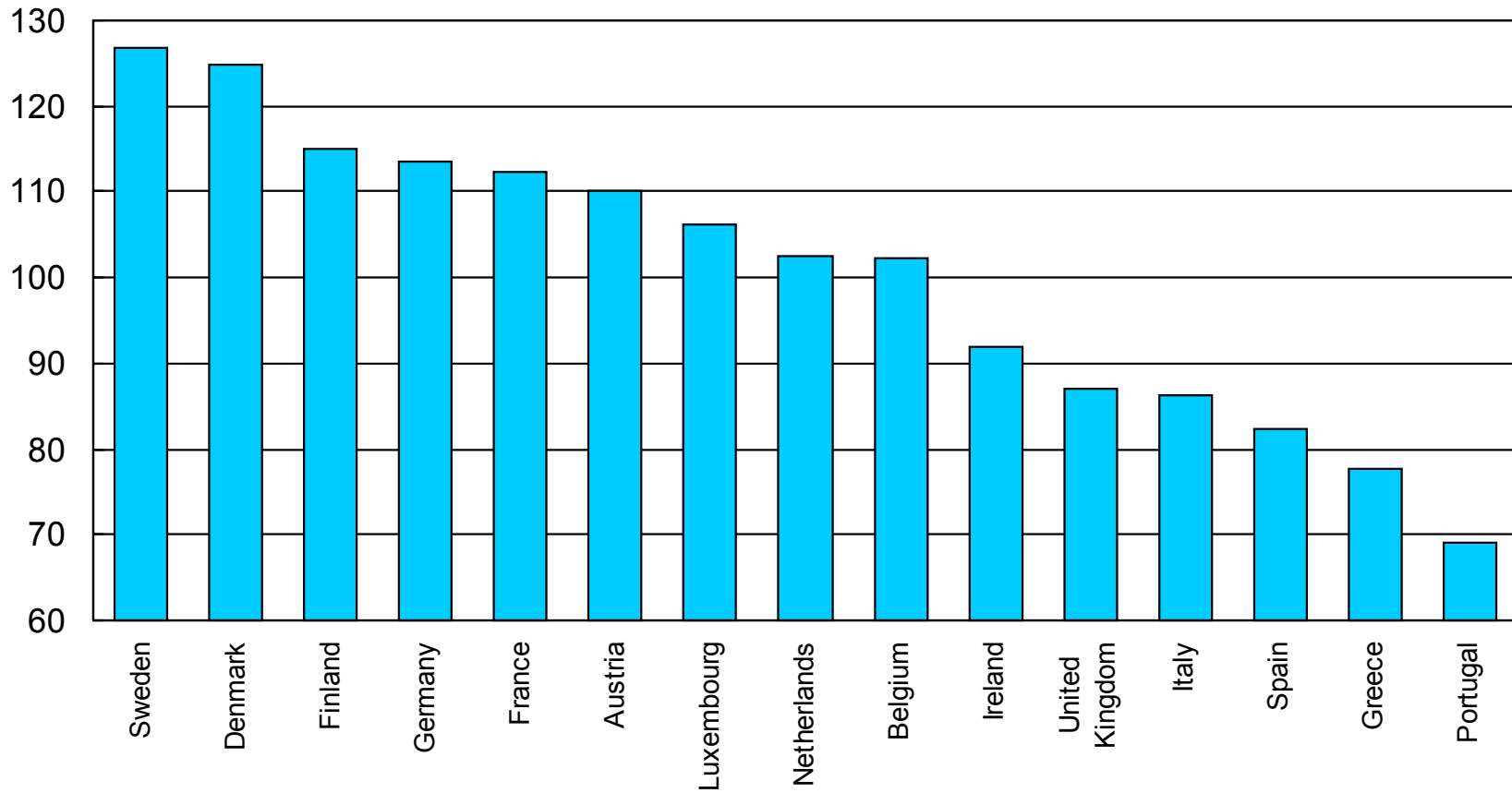
Figure 4. Euro Area Inflation Dispersion



Note: The dispersion indexes are computed as simple averages of the deviations in absolute value from the Eurozone mean, and plotted as 3-quarter moving averages. Data for Luxembourg are excluded.

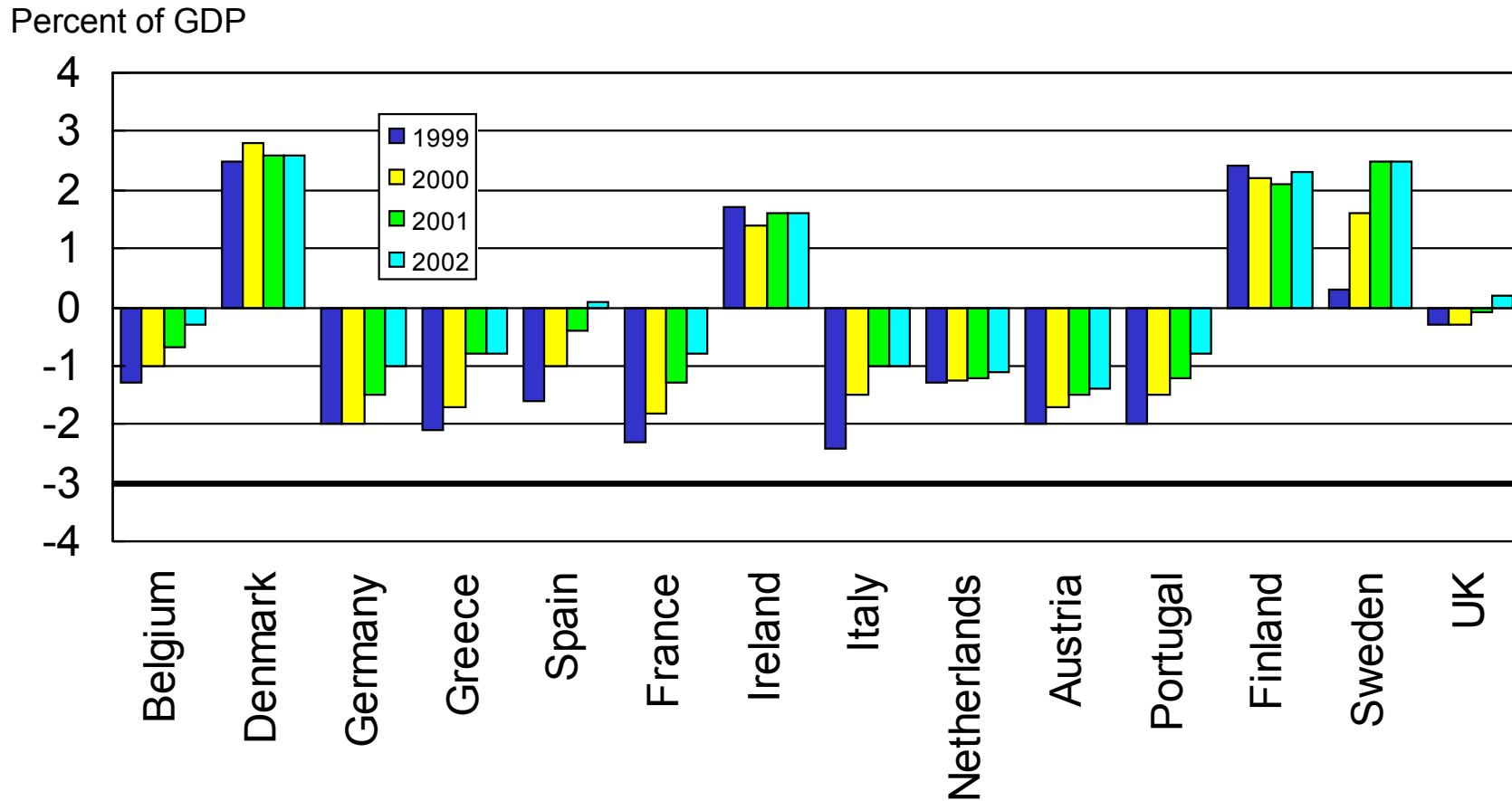
Source: Elaboration from EUROSTAT Harmonized Indices of Consumer Prices.

Figure 5. Price Level Dispersion



Source: Banca d'Italia and Eurostat

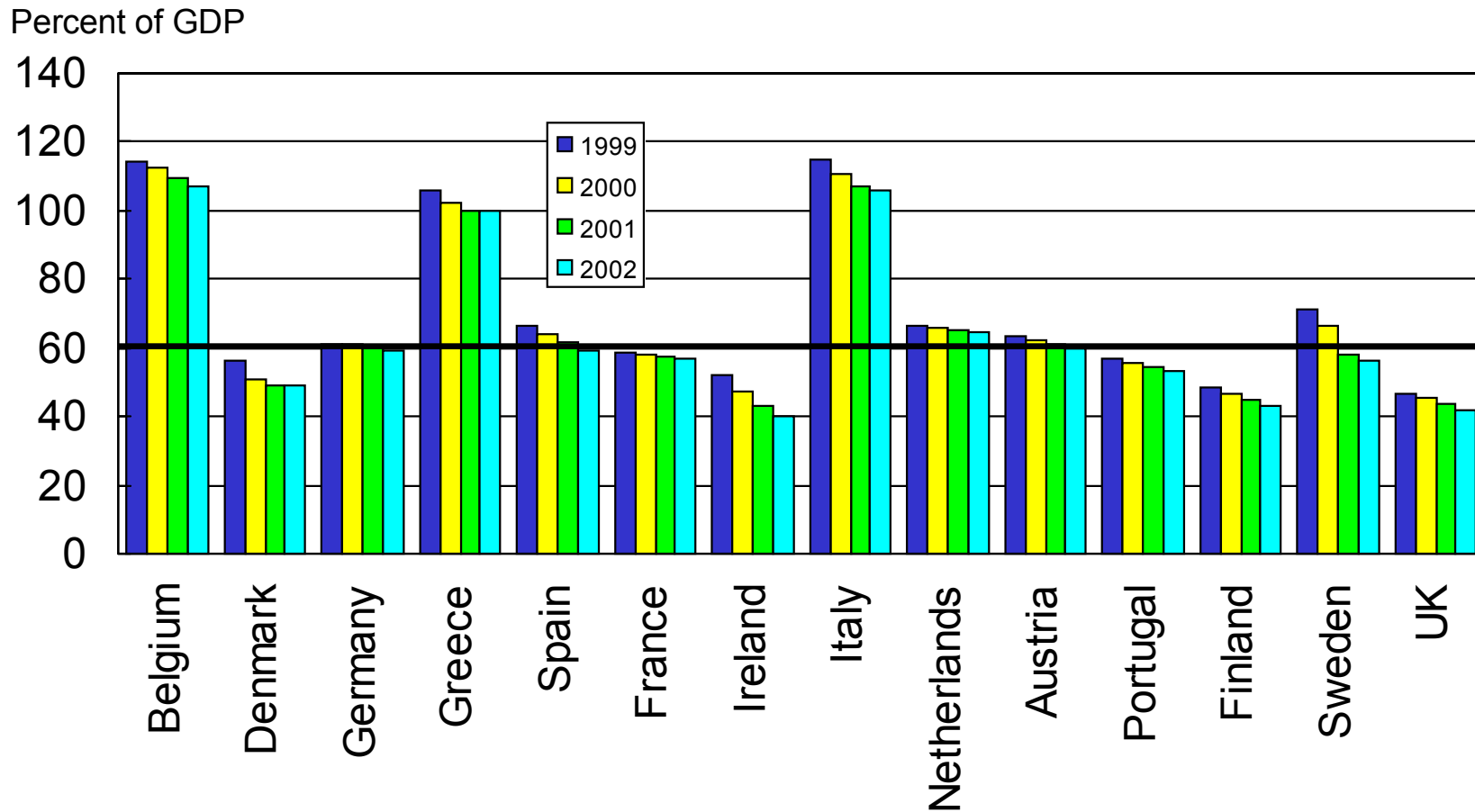
Figure 6. Official Government Balance Forecasts



Source: European Central Bank , Monthly Bulletin, May 1999, except for the recently downgraded official forecast for Italy in 1999.

Note: The bold line indicates the 3 percent deficit threshold as directed by the SGP.

Figure 7. Official Government Debt Forecasts



Source: European Central Bank , Monthly Bulletin, May 1999.

Note: The bold line indicates the 60 percent debt threshold as directed by the SGP.