

The ECB, the Euro and Global Financial Markets

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Abstract

The economic case for European monetary union was shaky at best when it was first discussed thirty five years ago. Europe's leaders felt that EMU was the capstone to their efforts to create an integrated Europe, and much to the rest of the world's surprise, they succeeded. The introduction of the Euro and the establishment of the ECB as the monetary authority of Europe went much more smoothly than many predicted. But nagging doubts about the wisdom of integration persist. The slim margins by which Maastricht passed, and the wide margin on which the constitution failed, are reminders that Europeans are still wary of giving up their national sovereignty. This wariness also influences the ability of the ECB to efficiently take over monetary policy and limits the ability of the Euro to become a true rival of the dollar in global financial markets.

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I. Introduction

European Monetary Union, thought by many to be a pipe-dream when first proposed in 1969, became a reality in 1999, and, to the surprise of many, is likely to include twenty-five countries within the next few years. After all the debates over whether Europe is (or will ever become) an optimal currency area, scholars are now focusing on the more immediate questions of who actually calls the shots at the European Central Bank (ECB), and how monetary decisions made there affect citizens in Berlin, Liverpool, and Peoria. This paper attempts to demystify the determinants of European monetary policy and its impact on countries within and outside the European Union (EU). At the time of this writing, the European currency, the Euro, is second only to the U.S. dollar in use and importance in international money and capital markets. This is an impressive statistic for a currency which has only been in circulation for four years. On the other hand, the Euro is less widely used than the combination of European currencies (the mark, franc, the guilder etc) that it replaced.

Although EMU is reality, many citizens in Europe are still grappling with the question of how truly unified they care to be. The French and Dutch “non” vote on the European Union constitution in the summer of 2005 is instructive for students of all European institutions, including the ECB. The constitution was to define the new (enlarged and enlarging) Europe, reducing the “democratic deficit” by giving the European Parliament more powers, and reforming a bureaucracy that was set up for six countries¹ rather than the current twenty-five EU member countries. Much has been written to explain the no vote, including antipathy to the “Anglo-Saxon” model of capitalism, a lack of enthusiasm of current member populations for further EU enlargement,² and a distaste for further centralization of European policy-making. The same political constraints that led to the defeat of the constitution, making the task of governing Europe less efficient, are apparent in many European institutions, including the

¹ The original six EU countries include: West Germany, Belgium, France, Italy, Luxembourg and the Netherlands. Britain, Ireland and Denmark were admitted in 1973, Greece in 1981, Spain and Portugal in 1986 and Austria, Finland and Sweden in 1995.

² The most recent EU enlargement took place in May 2004 with the accession of ten new countries (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia). The current plan is for these new members to eventually adopt the Euro when they meet the Maastricht criteria. Bulgaria and Romania are currently termed “acceding countries” and are expected to join in 2007. Candidate countries for future accession include: Turkey, Macedonia and Croatia; and potential candidate countries include: Albania, Bosnia and Herzegovina, Serbia and Montenegro, and Kosovo.

ECB. This paper examines the history, organization and policies of the ECB, and how this institution in turn, influences the internal and global role of the European currency, the Euro.³

The value of the Euro lost over a cent to the U.S. dollar on the day after the French defeat of the Constitution referendum (on May 29th, 2005). The ECB chose not to alter interest rates in reaction to the no vote, presumably to assure Europe and the world of its political autonomy. This paper will argue, however, that the ECB is subject to the same tension that exists for all European Institutions, a desire for more integration combined with a reluctance to cede national political control. Just as the no vote put limits on the efficiency of European Parliament governance, political constraints limit the ability of the ECB to efficiently take over monetary policy for Europe.

Contractors who perform major renovations know that it is usually much more efficient simply to scrap existing structures and start again from scratch. Property owners decide instead to renovate presumably because they like certain aspects of existing buildings, and just want to upgrade certain features – or that it simply costs too much to build something right. European integration is a renovation job. It starts from the premise that each country wants to stay largely as it was before integration. European institutions are additions to the main buildings (in this case, the original member country institutions) rather than new constructions that efficiently take on European economic policy-making. It should come as no surprise therefore, that European economies have not performed dramatically differently post-integration, and the global role of the new European currency, the Euro, is not much different than the combination of currencies that it has replaced.

II. The ECB as an Institution

History

The conception of a unified Europe is a shocking development from a historical perspective. France and Germany went to war with each other three times in the seventy

³ The Euro was launched as an electronic currency and accounting unit in January 1999, and has been in circulation since January 1, 2002, in Germany, Austria, Belgium, Spain, France, Finland, Greece, Ireland, Italy, Luxembourg, Netherlands and Portugal. Three EU member countries: Denmark, the United Kingdom and Sweden have not introduced the Euro. The "Euro area" is likely to be expanded when the ten new member states that joined the EU on May 1, 2004 meet the entry criteria. These countries currently participate in the exchange-rate mechanism (EMS II).

five year period from 1870 to 1945, with consequent loss of life, property and deep-seated national animosity of one country toward the other. Against this backdrop leaders from France, Germany and other (now) European countries became convinced that the only way to secure a lasting peace between their countries was to unite them economically and politically. The first step in this direction was the integration of coal and steel industries in the early 1950s. In 1957, with the signing of the Treaty of Rome, the European Economic Community (EEC) and the European Atomic Energy Community (Euratom) were established. Twelve year later (at the summit in the Hague in December 1969), the EEC decided to make economic and monetary union (EMU) an official goal of European integration. A group chaired by Pierre Werner, at the time the Prime Minister of Luxembourg, was given the task of drawing up a report on how this goal might be reached by 1980. The Werner group submitted its final report, an ambitious three-stage plan that would result in full liberalization of capital within Europe and a new single currency, in October 1970. The first stage of the plan, which involved a narrowing of intra-European currency fluctuation margins, was launched just as the Bretton Woods system collapsed and world currency markets went into turmoil. The timing could not have been worse and the fledgling EMU project was brought to an abrupt halt.⁴

At the instigation of France and Germany efforts to coordinate monetary policy and stabilize exchange rates were renewed in March 1979, with the creation of the European Monetary System (EMS), based on the concept of fixed, but adjustable exchange rates. The currencies of all the EEC States, except the United Kingdom, participated in the exchange-rate mechanism.⁵ After ten fairly successful years of EMS a new push was made to achieve EMU. This effort culminated with the Delors report in 1989, which once again proposed a three-stage plan which included the creation of a new, completely independent institution which would be responsible for the Union's monetary policy, the European Central Bank (ECB).

⁴ In March 1972 the EEC attempted to restart EMU by creating the "snake in the tunnel": a mechanism for the managed floating of currencies (the "snake") within narrow margins of fluctuation against the dollar (the "tunnel"). Thrown off course by the oil crises, the weakness of the dollar and the differences in economic policy, the "snake" lost most of its members in less than two years and was finally reduced to a "mark" area comprising Germany, the Benelux countries and Denmark.

⁵ The principle was as follows: exchange rates were based on central rates against the ecu, the European unit of account, which was a weighted average of the participating currencies. A grid of bilateral rates was calculated on the basis of these central rates expressed in ecus, and currency fluctuations had to be contained within a margin of 2.25% either side of the bilateral rates (with the exception of the Italian lira, which was allowed a margin of 6%).

The Delors three-stage approach to EMU (which was codified in the Treaty of Europe) included a precise timetable which was (to the surprise of many) largely followed. The first stage of the plan mainly involved the dismantling of capital controls.⁶ In stage two, which took place on 1 January 1994, member states were to make significant progress towards economic convergence in both monetary and fiscal policies. The European Monetary Institute (EMI), whose task was to strengthen cooperation between the national central banks and to carry out the necessary preparations for the introduction of the single currency, was also established. Stage three was EMU.⁷

In a striking example of *déjà vu* European currency markets went into crisis in 1992 (just as they had in the early 1970s during the first push toward EMU). Markets did not believe that the quasi-fixed EMS exchange rates were sustainable given the disparate economic situations across European countries (France was in recession, Germany was in the midst of unifying, etc). The Italian and UK authorities were the first to be forced to withdraw their currencies from the EMS in September 1992, and the Irish punt, the Portuguese escudo and the Spanish peseta were all devalued. During the summer of 1993 the French franc also came under strong pressure, and in August EU governments responded by changing the rules to allow exchange rates in future to fluctuate by up to 15% on either side of their central rates, in place of 2.25%, and doubt was once again cast on the feasibility of EMU.

The Maastricht Treaty (1993)

In a display of amazing (or, in the view of some, reckless) resolve, after surviving the currency turbulence in 1992 and 1993, EEC members codified the conditions for entry into EMU with the Maastricht Treaty.⁸ The Treaty laid out five criteria that countries must meet to become eligible for the Euro. These criteria include restrictions on inflation, interest rates, exchange rates, government budget deficits and debt. Specifically, a country's inflation rate is not to exceed the average inflation rate (measured with the consumer price index) of the three best performing Member States by more than one and a half percent. Long term interest rates (measured using long term

⁶ Specifically these involved the elimination of all restrictions of within European capital movements, prohibition on the granting by central banks of overdraft facilities to public authorities and public undertakings and prohibition on maintaining privileged access for the latter to financial institutions.

⁷ Denmark and the United Kingdom obtained opt-out clauses exempting them from the third stage of EMU.

⁸ In the context of the recent rejection of the European Constitution, it is worth remembering that the Maastricht Treaty was rejected by Danish voters and only just squeaked through with a "yes" vote of 50.5% in France in 1992.

government bonds) are not to exceed by more than two percentage points the average of the three best performing Member States. A country must have stayed within the normal fluctuation margins provided for by the EMS, for at least two years, without devaluing against the currency of any other Member State. And, a country's government deficit to GDP ratio must not exceed three percent and its government debt to GDP ratio must not exceed sixty percent.

Britain, Denmark and Sweden indicated early on that they did not intend to participate immediately in the Euro. Greece did not meet the price stability and interest-rate convergence criteria initially, but it had made sufficient progress to join the EMU in 2001. The interpretation of the two fiscal prudence criteria has been a matter of continuing dispute. Some have argued for the strictest literal interpretation. Though the official wording of the criteria allows for some flexibility; it allows a breach of the reference value for the budget deficit if the figure has declined substantially and is approaching the reference value, or if circumstances are such that divergence is thought to be "exceptional and temporary". The public-debt criterion can be exceeded if the ratio is falling and approaching the reference value steadily. Ironically, as seen in Table 1, in 2005 it was the two core EU countries, France and Germany (as well as Greece, Italy and Portugal) that exceeded both the deficit and debt criteria, making it impossible for the EU to impose a strict interpretation of these criteria on other countries.

How the ECB is organized? Who makes the decisions? Who gets appointed?

The institution that maintains EMU is the European Central Bank, headquartered in Frankfurt. It is part of the European System of Central Banks (ESCB) along with the National Central Banks (NCBs) of all member-states of the European Union. Only Governors from National Banks inside the Eurozone (meaning that the UK, Denmark and Sweden are not included) take part and are responsible for Euro-zone monetary policy decisions.

The main decision-making body of the ECB is the Governing Council (GC) which includes the twelve Governors of the National Central Banks and six members of the Executive Board. The Executive Board includes the president and vice-president of the ECB, and four members that are appointed "on the basis of professional merit and

monetary/banking experience”.⁹ Their terms are for eight years (lagged terms of office were applied on appointment of the first Executive Board in May 1998 to avoid replacement of all six members at one time). The Executive Board is responsible for day-to-day management and the implementation of Governing Council policy decisions. Governing Council policy decisions, in turn, are made by simple majority, or in some cases by qualified majority,¹⁰ which in either case means that the preferences of the twelve National Central Bank Governors dominate ECB decision making. The normal frequency of GC meetings is every two weeks. The first meeting of the month is typically devoted to evaluating whether interest rates are required to be adjusted and the second meeting is left open for discussions of other issues related to the Eurosystem's tasks. Economic forecasts used in GC policy discussions are generally prepared by the National Central Banks. The GC does not “formally” vote on monetary policy decisions so there exists no official voting record.

The constitution of the ECB is contained in an annex to the Maastricht Treaty where the ECB’s primary objective is unequivocally stated as price stability, with economic growth as a (decidedly) secondary objective.¹¹ Specifically, Article 105 of the Maastricht Treaty defines that "... the primary objective of the ECB shall be to maintain price stability" and that "without prejudice to the objective of price stability, the ECB shall support the general economic policies in the Community...". The ECB has the exclusive right in the EU to authorize the issue of banknotes and coins; however, the National Central Banks handle the technical aspects of Euro issuance. Further, Article 107 of the Maastricht Treaty establishes the ECB's (political) independence. ECB executives are not to seek or take instructions from any other institution or government body, European or national, and the European governments are not to seek to influence the decision-making bodies of the ECB.

⁹ The Maastricht treaty gives the European Council the responsibility to appoint the ECB’s executive board, though the election process is a secretive one. Viewed from the outside, the appointments seem to be based on implicit quotas with three or four members from the four large countries, and with the small countries fighting for the remainder. According to Giavazzi and Wyplosz (FT, Feb 2004), "...they all currently come from successful careers in their own national central banks. They share a penchant for caution and secrecy, a distance from the markets’ logic and from the latest academic thinking.”

¹⁰ Qualified majority requires a 2/3 vote weighted according to the National Central Banks' shares in the ECB capital; which are determined half-and-half by the member state's population share and the member state's GDP share. The weights are adjusted every five years. In December 2002 the CG decided to limit the number of voting rights of ECB Governors to 15 through the use of a rotation system to take into account the likely problems that would arise with EMU enlargement.

¹¹ In contrast, in the US, the Fed has a dual mandate of price stability and economic growth.

The role of the ECB as the representative of European monetary interests is still evolving and is at times awkward. For example, the ECB represents Europe at some parts of the G-7 meetings of finance ministers and central bank governors, whereas at other parts, the heads of the national central banks of France, Germany, and Italy join the meeting and the president of the ECB leaves (Truman, 2004). There is no European representative of the European fiscal authorities because there is no euro area fiscal authority. The UK attends Ecofin meetings, is not a participant in the euro area, but is a full-fledged member of the G7. No provision was included in the Maastricht Treaty for the ECB to act as a lender of last resort in the case of financial crisis, nor does the ECB have supervisory powers over European banks – both of these roles are still held by the NCBs.

The ECB was established as an independent central bank, presumably based in part on the vast academic literature that has argued that political independence is essential for a monetary authority to make economically-sound policy decisions. Ironically, much of the criticism leveled at the ECB revolves around the perception that it is excessively independent and undemocratic. The ECB does not publish or invite comments on its proposed decisions. It provides immediate information (via a press conference) about its policy decisions, though it does not provide the rationale for its decisions. Minutes of the GC meetings will supposedly be made available after a 20-year lag. European citizens can only influence the policy decisions of the ECB very indirectly through the European Parliament. The European Parliament appoints the ECB president, vice-president, and the other members of the Executive Board, and in theory they have the power to remove appointees. The ECB president must also present an annual report to the plenary sitting of Parliament. National Central Bank governors are chosen by their respective countries, European Parliament has no powers of influence over them.

Buiter (2004) makes the case that ECB independence may not be optimal and that the current practice of not releasing the voting record of the Governing Council may provide members cover for nationalistic voting preferences. (The rationale for not publishing this information is that confidentiality will protect individuals from pressure to vote in line with narrow national interests). Meade (2004) interestingly shows that the ECB's monetary policy decisions from 1999 to 2001 are consistent with the regional bias hypothesis (as are the policy decisions of Governors of the U.S. Federal Reserve).

The issue of ECB independence can be viewed from a number of different dimensions. Regardless of the transparency of its voting record, is it possible in practice for an institution that is largely run by National Central Bank Governors to be independent of country-specific preferences? And is strict independence optimal? ECB policy decisions after all are presumably supposed to benefit Member countries, the issue is only which countries will in the end benefit the most.

The structure of the ESCB resembles the Federal Reserve System and the Bundesbank, though it is much more decentralized. There are twelve National Bank Governors on the Governing Council, twelve regional Fed presidents on the FOMC and nine Landesbank presidents on the Bundesbank Council, but the power at the GC resides with the National Banks while at the Fed it resides with the Governors.¹² The greater decentralization of the ECB is also reflected in its small staff; around 700 compared with over 20,000 for the Bundesbank and 16,000 for the Bank of France. Even though the ECB was to take over some of the decision-making from the National Central Banks, there is little evidence of staff shrinkage in the latter institutions.

III. ECB Policy and the Euro

Has ECB Policy been effective? The ECB came into being during a particularly volatile period for global financial markets, and has, by all appearances, succeeded in maintaining a stable Euro-zone money market. Quibbles can be made regarding its ability to keep inflation within its target in the early years, and its lack of focus on growth and unemployment rates, but overall, the ECB gets good marks for its performance to date.

ECB Monetary Policy

The most controversial element of the ECB's monetary policy strategy is what is referred to as its "first pillar", the role assigned to the growth of monetary aggregates, specifically a reference value of 4.5% for annual M3 growth. The money supply is useful as a policy target only if there is a stable link between money and inflation. Under Volker in 1979 the Fed switched from targeting monetary aggregates to targeting interest rates after the former policy led to double-digit inflation in the US. However, the Bundesbank successfully followed a monetary targeting regime and Germany was presumably keen for the ECB to continue its tradition. Cecchetti and O'Sullivan (2003) point out that

¹² Only five of the Federal Reserve Bank Presidents vote at any one time in the FOMC.

technicalities make the “first pillar” near impossible to implement. The ECB defines M3 to include only currency deposits and marketable financial instruments held by euro area residents, which requires the ECB to know the identity of the ultimate owners of the relevant instruments, a non-trivial task. In any case, there is little evidence to-date to suggest that the ECB has, in fact, put much weight on monetary aggregates in its monetary policy decisions. Figure 1 shows the Euro area M3 growth rate (year-to-year percentage changes) exceeded its reference value continuously since 2001.

The second (and curiously less controversial) pillar of the ECB’s monetary policy involves monitoring a range of indicators, such as wages, price indices and business confidence. The two pillars are used to maintain an inflation target for the Euro-zone of less than two percent per year. Figure 2 shows the Euro area measure of inflation over the period 1996 through 2005. Inflation generally exceeded the two percent target after 2000 and, at least in practice, the ECB has behaved as if 2% were the midpoint not the ceiling. It is notoriously difficult to measure inflation, and because the index tracked by the ECB (the harmonized index of consumer prices) excludes the housing costs of owner-occupiers, the index may well understate the true cost of living.¹³ So it appears that monetary policy in the euro area, at least in the last few years, has been looser than the ECB “party line”.

The main way the ECB provides liquidity to the market is through open market operations, known locally as “refinancing operations,” and conducted according to a pre-arranged schedule on a weekly and monthly basis.¹⁴ In practice the ECB (through the NCBs) gives banks reserves in exchange for securities, and then reverses the transaction. The ECB also provides overnight loans to banks at the “marginal lending rate”.¹⁵ One of the main motivations for banks to borrow from the ECB is to satisfy their minimum reserve levels which involve deposits at the ECB of the equivalent of 2% of their outstanding loans. These reserve requirements are said to have been imposed at the Bundesbank’s insistence, but unlike the Bundesbank, the ECB pays interest on these bank deposits.

¹³ Calculations by the OECD suggest that if owner-occupied housing costs were added in, average inflation in the euro area in 2004 would have been 2.7%, rather than the published 2.1%.

¹⁴ The loans provided at these auctions generally have a two-week maturity.

¹⁵ Technically, the GC determines the “spread” between the marginal lending rate and the target refinancing rate.

The GC makes the day-to-day and longer-term monetary policy decisions, but the National Central Banks actually undertake the monetary operations. Indeed, refinancing operations are done simultaneously by all the NCB's in the Euro-system in combination with over 500 counterparty institutions and a wide range of government securities (the list of acceptable collateral differs by country). The case for more efficient liquidity provision, via a more centralized process, is easy to make when one considers the complexity of the simultaneous operations that currently take place. This is yet another area where one might have thought the ECB would take a more dominant role, suggesting that political concerns among the NCBs, rather than economic efficiency, must explain the current set up.¹⁶

Quite apart from the logistics of European monetary policy, some critics feel that the objectives given to the ECB are inappropriate. The ECB sets interest rates with a primary objective of controlling inflation, with no explicit objective for employment or exchange rate stability. For example, the unusually low interest rates set by the ECB in the early years have been criticized as being inappropriate for regions of Europe with property bubbles, and the relatively high recent interest rates have been criticized as hampering economic growth for some of the larger countries in the EU. Empirical evidence, however, suggests that the ECB has been more concerned about growth than might be expected given its mandates. One gauge of the relative weights a country's central bank places on price stability versus growth is how closely it conforms to a "Taylor rule", which calculates the appropriate interest rate according to the amount of excess capacity in the economy and the inflation rate. A number of studies have found that while the Fed's policy has broadly matched the Taylor rule in recent years, the ECB has actually maintained interest rates at lower levels than those the Taylor rule would have prescribed (and lower than those that the Bundesbank would have maintained based on its monetary approach).¹⁷ Figure 3 shows Euro-area short term interest rates from 1995 to the present.

The ECB must implement policies for the entire Euro-area, despite differences among countries in preferred policies, and differing sensitivities to policy changes. Angeloni and Ehrmann (2004) report evidence that countries who trade more with non-

¹⁶ Alesina and Perotti (2004) also discuss the difficulties for EU centralization, which are typically viewed as encroachments upon on national competencies.

¹⁷ See Taylor (1993) and Faust, Rogers, and Wright (2001).

European countries are more sensitive than others to ECB monetary policy, since changes in the Euro (reflecting changes in Euro-area interest rates) have more influence on them than on countries whose trade lies mostly within Europe.

ECB Exchange Rate Policy

The creation of the Euro is arguably the most momentous currency innovation since the establishment of the United States dollar in 1792. The main economic rationale of a single European currency was to deepen integration among its members by reducing the costs of cross-border commerce, encouraging cross-border mergers, improving price transparency and eliminating exchange rate risk. The focus prior to EMU was on the specific intra-European exchange rates that would be used to set Euro parity and therefore influence within-Europe trade and finance patterns. After January 1, 1999 the focus quickly changed to the value of the Euro relative to other non-European currencies, especially relative to the dollar. Figure 4 shows the Euro Real Effective Exchange Rate and Figure 5 shows Euro bilateral rates relative to the U.S. dollar, the British Pound, and the Japanese Yen over the period 1999 through 2005. On the first day of EMU the usd/euro rate was 1.17. The value of the euro then steadily declined over the first year, and by late January 2000 the euro fell below dollar parity. European exporters were presumably pleased with the competitive advantages of a weak Euro, but European leaders actively voiced their concern over the weakening Euro.

Although the ECB is wholly in charge of monetary policy, the Maastricht treaty puts finance ministers (the ECOFIN Council) in charge of exchange rate policy for the Euro. In Article 111 the ECOFIN Council is given authority to “formulate general orientations and formal agreements for the Euro”. Foreign exchange market intervention policy is also addressed under “External Operations” in Article 23 of the Maastricht Treaty for the ECB and the NCBs. The United States has a similar jurisdictional split, with the US Treasury having legal authority to decide intervention policy, though in practice the Fed is generally an equal partner in intervention decisions. Interventions may be carried out either directly by the ECB or by the NCBs acting on behalf of the ECB. Interventions may also take place within the framework of the Exchange Rate Mechanism II (ERM II).¹⁸

¹⁸ Currently seven countries participate in ERM II: Denmark (since January 4, 1999), Estonia, Lithuania and Slovenia (since June 28, 2004), Cyprus, Latvia and Malta (since May 2, 2005). The other countries that entered the EU on May 1, 2004 are expected to join ERM II as a pre-condition to joining the Euro-

After much speculation in the financial press over whether it would intervene, the ECB intervened on four occasions in September and November 2000 to strengthen the euro against the dollar.¹⁹ The first ECB operation was coordinated with the U.S. Fed and the Bank of Japan, along with other central banks, and, while the dollar magnitudes were released by all the other central banks, the magnitudes of the ECB operations have never been made publicly available. The ECB operations came as the euro was at its weakest against the dollar, and the operations coincided with a substantial (although relatively short-lived) strengthening of the euro.

After the initial obsession with dollar parity in the early years, the more current concern is that the Euro is “over valued,” hampering economic growth for export-oriented European countries. It is also the case that, although nominal exchange rates are fixed within Europe, differences in inflation across countries can still affect real exchange rates. For example, Germany’s low inflation has made the country’s exports relatively cheap, while higher rates of inflation in Greece and Spain make their exports relatively dear.

Although EMU was thought to be a way to further integrate countries economically, evidence suggests a more mixed view. Despite the efforts to converge in advance of EMU, countries entered the Euro-zone from very different starting points. Once in the Euro, these differences in some cases increased rather than decreased divergences among countries in rates of real income growth. Monetary policy was inevitably too tight for slower growth countries (including Germany) and too loose for faster-growing countries. Labor market rigidities in Europe aggravate real divergences by failing to allow wages to adjust to local circumstances. The growth and stability pact, for its part, only makes things worse by depriving governments of the one power which, under monetary union, they most need: the ability to use national fiscal policy to counteract recessions that affect one member state more than the others.²⁰

The Global Role of the Euro

The role of the Euro as a reserve currency in central bank and private portfolios is still evolving. A number of Asian Central Banks as well as the Russian Central Bank

zone. New countries cannot formally opt out of the Euro. If they pass the Maastricht tests, they are supposed to join – though Sweden has stayed out even without a treaty-sanctioned opt-out.

¹⁹ The dates of the ECB interventions in 2000 are September 22 and November 3, 6, 9.

²⁰ Gali and Perotti (2003), however, show that fiscal policy has become less procyclical among the EU countries since the signing of the Maastricht Treaty.

have suggested that they will diversify out of dollars and into Euros, though there is little evidence that this has yet occurred. The share of the euro in official foreign exchange reserves went from 18.7% of total reserves in 2001 (compared to 64.5% for the U.S. dollar) to 19.7% in 2003 (mainly due to the appreciation of the Euro relative to the dollar). The dollar remains the dominant intervention currency for non-US central banks, though the Euro is increasingly being used in countries neighboring the EU.

Foreign exchange trading in Euros as a percentage of global trade has not increased compared to the share of the combined EMS currencies that existed prior to the Euro (Rey (2001)). In 1998, the dollar was present 87% of the time at one end of a transaction in the foreign exchange market while the EMS currencies were present 53% of the time (shares add to 200% to take into account both sides of a transaction). In 2003, the share of the dollar was 90 % and the share of the euro was 37%, virtually unchanged from 2001. Global euro trading is mainly against the U.S. dollar

The greatest increase in the use of Euros has come in the stock of international debt denominated in euros (excluding home-country issuance), which rose from below 20% at the end of 1998 to just above 30% at the beginning of 2003. Most of the (non-EMU) countries issuing euro-denominated bonds, lending in euros, and creating euro deposits, are neighbors of the Euro area (for example, UK residents own almost 40% of all non-EMU-resident euro-denominated deposits). Lenders and borrowers in Asia, Latin American and the Middle East continue primarily to use the dollar, and the share of Euros in cross border lending and deposit activity conducted outside the Euro area is small (around 5 to 6%).²¹

One of the main rationales for the Stability and Growth Pact (SGP) was that, because financial markets would not differentiate between countries' public debts once they were all denominated in euros, rules were required to prevent free riding.²² Figure 6 shows that long term government bond yields did indeed converge dramatically with the establishment of EMU. Interestingly however, even though the SGP has been violated (by the two largest countries, as well as some of the smaller ones) there is little evidence that countries are being penalized by financial markets (or, for that matter, by the EU).²³

²¹ See Lane (2005) for further discussion of the changes that have taken place in post-EMU financial markets.

²² See Feldstein (2005) for further discussion of the role of the SGP.

²³ Only Portugal has been "officially" punished for its SGP violations.

In the early (heady) days after the signing of the Maastricht Treaty, there were suggestions that once EMU was solidly in place, the Euro might rival (or even surpass) the dollar as the world's international reserve currency. To date, as already discussed, there is little evidence that the global role of the dollar has been usurped. In a recent study Chinn and Frankel (2005) provide two scenarios under which the euro could become more dominant. The first is if the UK and enough other EU members join euroland so that it becomes larger than the US economy. The second is if confidence in the value of the dollar falls (something that economists have long been concerned about, though financial markets have yet to come to the same conclusion). Another factor that is hindering an increased global role for the Euro, however, is the continued hesitation on the part of Euro-zone countries themselves to fully embrace their newly created currency. Leaders of a number of Euro-zone countries (including Germany, France and Italy) have at one time or another hinted that an exit strategy might be needed under certain economic conditions. Even if these murmurings are intended only for internal political consumption, they leave the rest of the world with a nagging sense of doubt about the longevity of Euro-land.

IV. Conclusions

The economic case for European monetary union was shaky at best when it was first discussed thirty five years ago. Europe's leaders felt that EMU was the capstone to their efforts to create an integrated Europe, and much to the rest of the world's surprise, they succeeded, even in the wake of two currency crises. The introduction of the Euro and the establishment of the ECB as the monetary authority of Europe went much more smoothly than many predicted. But nagging doubts about the wisdom of integration persist. The slim margins by which Maastricht passed, and the wide margin on which the constitution failed, are reminders that Europeans are still wary of giving up their national sovereignty. This wariness also influences the ability of the ECB to efficiently take over monetary policy and limits the ability of the Euro to become a true rival of the dollar in global financial markets.

The true test of the influence of the ECB and the longevity of the Euro has yet to come. The Fed has proved itself able to calm financial markets and keep the US economy on track even in the face of dramatic financial market turbulence: the 1987

stock market crash, the collapse of LTCM, and nine-eleven. What role the ECB might play in the event of a major collapse of a European bank, or if one country or region within Europe goes into financial crisis is less clear. It seems likely that individual country governments will want to take center stage, leaving the ECB and other European institutions on the side-lines.

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European Monetary Union Convergence Criteria

Reference value	CPI Inflation (%) 1/			10-Year Interest Rates (%) 2/			Budget Deficit (% GDP) 3/			Public Debt (% GDP) 3/		
	3.0			5.8			-3.0			60.0		
	1995	2000	2005	1995	2000	2005	1995	2000	2005	1995	2000	2005
Austria	1.8	2.6	1.9	6.4	5.2	3.1	-5.3	-1.7	-1.9	69.2	67.0	65.1
Belgium	1.5	2.5	3.1	6.7	5.3	3.3	-4.4	0.2	0.0	133.9	109.2	93.7
Finland	0.2	3.4	1.0	7.1	5.1	3.2	-3.9	7.1	1.3	57.1	45.5	42.1
France	2.1	1.6	1.8	6.6	5.0	3.3	-5.5	-1.4	-3.9	54.6	57.1	65.9
Germany	1.5	2.1	1.9	6.0	5.5	3.5	-3.3	1.3	-3.7	54.1	60.6	67.9
Greece	7.6	3.8	3.7	...	4.9	3.3	-10.2	-4.2	-4.2	108.7	114.0	108.8
Ireland	...	5.7	2.3	7.3	5.0	3.3	-2.1	4.4	0.5	84.7	42.1	27.4
Italy	5.4	2.7	2.0	10.9	5.3	3.4	-7.6	-0.7	-4.4	124.2	111.1	106.7
Luxembourg	1.2	3.4	2.5	5.6	-1.3	...	5.5	4.0
Netherlands	1.7	2.9	1.6	6.0	5.0	3.3	-4.2	2.2	-1.9	76.9	58.5	56.5
Portugal	3.3	3.9	2.6	9.8	5.2	3.3	-5.5	-2.9	-6.3	64.3	53.3	66.6
Spain	4.2	3.9	3.2	9.7	5.2	3.2	-6.7	-0.9	-0.6	63.9	61.1	49.4

1/ Source: IMF International Financial Statistics. End of year observation. 2005 value most recent observation.

2/ Source: Datastream. End of year observation. 2005 value most recent observation.

3/ Source: Economist Intelligence Unit, derived from OECD data. End of year observation. 2005 value forecast.











