THE EURO: SECOND TO (N)ONE

NORBERT WALTER

GERMAN ISSUES  23
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FORWARD

January 1, 1999 may be as important a date in European history as any in the previous thousand years. The inauguration of the Euro as the common currency for the participating members of the European Union signaled the first time Europe has had a common currency since the days of Charlemagne. But the first year and a half of the experience with the Euro illustrated a monetary glass both half full and half empty. On the one hand, the Euro operates in the second largest economic and financial region in the world with the probability of further expansion in the coming decade. The transfer of responsibility for monetary policy to the European Central Bank went smoothly when one considers what a huge transfer of sovereignty it represented. However, in the same time period, the Euro has lost over 20 percent of its value against the yen, the pound and the dollar. Money continues to pour into the United States, particularly from Germany, contributing to the Euro’s exchange rate weakness.

A year and a half is not sufficient time to interpret more than initial trends in Euroland and there is every opportunity for more problems to emerge. Blaming the Euro for domestic problems in the member countries is always an option for the politicians and the voters. The Euro’s success will be as much a result of the fiscal discipline of its members as it will be dependent on the choices of the ECB and its members.

In the United States, the potential for the Euro to be an equal option in the world economy may be judged as either unlikely or very far down the road. One can see several scenarios pointing in the direction of derailments, particularly with the significant range of conditions in the European Union. Yet, the numbers describing the current starting basis for the Euro are impressive. The Eurosystem has substantial reserves, increasingly attractive investment opportunities in its financial markets, and the longer run advantages of a system capable of incorporating the remaining members of the EU. For those with deep pockets and patience, those opportunities look good.

Professor Norbert Walter takes a hard look at these factors in this edition of German Issues. The title The Euro: Second to (N)one is illustrative of the arguments he makes in his essay about the future of the Euro. By the time the Euro becomes the legal tender in the member countries in early 2002, Walter argues that the final step of the EU system will “create the basis for a full-fledged currency, which can be competitive with the dollar on equal footing.” Achieving that basis does not create parity in the international economic market.
The more immediate impact will be felt primarily in Europe. In this context, Germany’s role and interests, together with those of France, will continue to be dominant as the next stage of the European Monetary Union begins.

Three years ago, Norbert Walter made strong arguments (German Issues #17, *European Monetary Union or Neotribalism in Europe*) for Germany and Europe not to miss the window of opportunity to complete the European Monetary Union with the commencement of the Euro. The situation was, at the time, not a done deal by any means. Opposition to the Euro was widespread in Germany and France. Today, the Euro is reality but challenges remain. The fact that a formal common currency exists does not replace the measure of success based on performance. The Euro’s path to potential parity with the dollar may be a long one. However, Professor Walter is convinced that the journey has begun.

We wish to thank the German Marshall Fund of the United States and the Deutsche Bank AG for their support of this publication.

Jackson Janes
Executive Director

July 2000
**ABOUT THE AUTHOR**

**Professor Norbert Walter** is Managing Director of Deutsche Bank Research and Chief Economist of the Deutsche Bank Group with which he has been affiliated since 1987. He worked with the Kiel Institute of World Economics from 1971 to 1986 and in 1986/87, he was the John McCloy Distinguished Research Fellow in Residence at the American Institute for Contemporary German Studies.
I. INTRODUCTION

The creation of the European Monetary Union (EMU) at the beginning of 1999 and the introduction of the Euro as the single currency for the eleven member states of the European Union were milestones in European integration. The changeover was managed successfully in both monetary policy and financial markets. EMU eliminated intra-European exchange rate risks between the eleven countries, thus facilitating trade and long-term investment and stimulating growth. The Euro has increased price transparency and competition. It established the second largest economic and financial area in the world behind the U.S.

After one and a half years of EMU the Euro is a success story in many respects. EMU has strengthened the macroeconomic performance of the member countries with regard to growth and inflation, and has triggered major improvements in European financial markets. However, 18 months is too short a period to allow for definitive conclusions about EMU since the benefits will primarily be long-term and of a structural nature.

The Euro area’s growth performance is now excellent (GDP: +3.75 percent in 2000) and likely to surpass that of the U.S. in 2001. Fiscal consolidation is on track. Overall, government budgets are in balance and tax rates are on the decline. Social benefit systems are up for reform. The European Central Bank (ECB) has been successful in achieving its primary objective of price stability. Inflation will probably be 2 percent in 2000 despite the weakness of the Euro and the nearly tripling of the price of oil within a year. While monetary policy has been implemented smoothly and efficiently, the ECB has had some problems with regard to communicating its strategy. The weakening of the Euro exchange rate right at the inception of EMU is disappointing but not disquieting. The Euro is stronger than foreign exchange traders suggest.

The huge foreign exchange reserves held by the ECB and the national central banks (together known as the “Eurosystem”) have triggered a lively debate on how to use them more efficiently. The weakness of the Euro is a good opportunity to sell the surplus dollar reserves at a profit and use the receipts to reduce public debt.

The Euro definitely has important international implications. It has the potential to challenge the dollar as the international currency of choice, but for
the time being, the dollar is expected to predominate. While there are no up-to-date statistics on the use of the Euro as an international trade and reserve currency, it is obviously in widespread use in financial markets and as an anchor currency.

The Euro has triggered substantial structural changes in the European financial markets. As a consequence of increased transparency and competition, transaction costs have been lowered in several areas. The elimination of currency-related investment barriers has considerably boosted cross-border investment within the Euro area. A liquid, single money market was created on day one of EMU. The Euro has reinforced the trend towards securitization and disintermediation. The integration of bond markets, and to a lesser extent, stock markets, has made substantial progress. While the convergence of government bond yields has continued, there has been a growing appetite on the part of investors for private-sector Euro bonds bearing higher yields. Private-sector issuing activity has been especially vigorous in the corporate bond market. The volume of the individual bond issues has increased substantially, thus providing higher liquidity. A dynamic consolidation process is under way in the fragmented European stock exchange structure. Nevertheless, Euroland has still a long way to go in order to achieve efficient capital-market structures comparable to those in the U.S.

Looking ahead, EMU is open to new members. Four European Union (EU) member states did not participate from the start of EMU. However, Greece—which only recently met the convergence criteria for price and exchange rate stability, interest rate convergence and fiscal discipline—will join on January 1, 2001. The UK, Sweden and Denmark—although fulfilling the criteria—decided for political reasons not to join yet. For the ten central and eastern European countries currently negotiating accession to the EU, there is no fixed timetable for joining. After entering the EU, new members will have to qualify for EMU. The present candidates still have a long way to go before they are ready to enter EMU. The first may be full members by the end of this decade; and quite a few of them might have unilateral ties to the Euro a good deal earlier.
II. THE EMU ECONOMY: SUCCESSFUL CONVERGENCE AND DYNAMIC GROWTH

If a monetary union is to function smoothly, its constituent economies must be as similar as possible in terms of economic structure and cyclical development. In a monetary union, the individual member states can no longer make monetary and exchange rate adjustments. Asymmetric shocks leading to distortion in competitiveness in a particular sector or region may cause unemployment and, in the final analysis, lead to fiscal redistribution between the member states, if factor mobility or factor price flexibility do not correct the initial distortions.

Table 1
Key economic indicators: EMU in international comparison
Data as of 1999

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>General indicators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population m</td>
<td>291</td>
<td>376</td>
<td>272</td>
<td>127</td>
</tr>
<tr>
<td>GDP USD bn</td>
<td>6,498</td>
<td>8,458</td>
<td>9,255</td>
<td>4,380</td>
</tr>
<tr>
<td>GDP per capita USD</td>
<td>22,300</td>
<td>22,525</td>
<td>34,090</td>
<td>34,490</td>
</tr>
<tr>
<td>Share in OECD GDP %</td>
<td>26.1</td>
<td>34.0</td>
<td>37.2</td>
<td>17.6</td>
</tr>
<tr>
<td>Unemployment rate %</td>
<td>9.4</td>
<td>8.7</td>
<td>3.9</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>Public sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenditure ratio % of GDP</td>
<td>47.8</td>
<td>46.7</td>
<td>30.1</td>
<td>38.1</td>
</tr>
<tr>
<td>Budget balance % of GDP</td>
<td>-1.2</td>
<td>-0.7</td>
<td>1.0</td>
<td>-9.4</td>
</tr>
<tr>
<td>Government debt % of GDP</td>
<td>72.0</td>
<td>68.0</td>
<td>59.0</td>
<td>116.0</td>
</tr>
<tr>
<td><strong>Foreign trade</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of world exports % (1998)</td>
<td>19.6</td>
<td>n. a.</td>
<td>15.0</td>
<td>8.5</td>
</tr>
<tr>
<td>Exports % of GDP</td>
<td>12.0</td>
<td>8.5</td>
<td>7.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Imports % of GDP</td>
<td>11.1</td>
<td>8.6</td>
<td>11.5</td>
<td>7.1</td>
</tr>
<tr>
<td>Current account USD bn</td>
<td>53</td>
<td>-13</td>
<td>-365</td>
<td>108</td>
</tr>
</tbody>
</table>

Source: ECB, Deutsche Bank Research
In order to avoid such painful results and to provide a solid basis for the single European currency, much emphasis was placed on the economic convergence of the member states of EMU. The great efforts that the EU member states had made throughout the 1990s and especially in the run-up to EMU to meet the EU Treaty’s convergence criteria largely paid off in May 1998, when the first-round participants of EMU were selected. Except for Greece, which is now scheduled to enter EMU in 2001, all member states wishing to join EMU succeeded in fulfilling the convergence criteria. The Euro started off with eleven members rather than 14 because the UK, Sweden and Denmark had political reasons not to join.

Economic coherence among the member states remains important for the success of the Euro even after the establishment of EMU. After one and a half years it is apparent that EMU and its member states have been successful in maintaining the momentum generated by the drive to meet the convergence criteria and pave the way for a zone of economic and monetary stability.

Most importantly, the ECB has successfully pursued its primary objective of maintaining price stability. The ECB’s inflation measure, the Harmonized Index of Consumer Prices (HICP), came in at 1.1 percent in 1999, well within the ECB’s definition of price stability, which is an increase in the HICP of less than 2 percent. Despite unfavorable conditions stemming from rising oil prices and higher import prices as a result of the weak Euro exchange rate, the ECB has a good chance of keeping inflation within the limit throughout 2000, and well below the expected rate of inflation in the U.S. (3.1 percent). Also, the inflation rates in the individual member states have remained largely comparable to the exceptions of Spain and Ireland, where above-average growth rates have triggered faster increases in the price levels.

The convergence of long-term interest rates, too, was a notable feature of the pre-EMU qualification phase. This trend continued beyond the 1997 reference period, leading to yield spreads between ten-year government bonds of EMU countries to stabilize largely at around 20 to 25 basis points since 1999. This year yields in EMU have remained low compared internationally, with a differential of more than 100 basis points below U.S. Treasury bonds. The interest differentials that remain in the EMU government bond market are chiefly related to technical and liquidity considerations, and not so much to
credit risk on the part of the issuer. As these considerations will continue to influence investment decisions, yield differentials are going to remain a feature of the government bond markets in EMU.

Interest-rate convergence has clearly been supported by the commitment on the part of the EU member states to reduce their budget deficits and public debt as required for membership in the monetary union. After making significant progress during the convergence period, the EMU member states have successfully continued their fiscal consolidation measures. One major incentive for their efforts is the Stability and Growth Pact of the EU, which obliges the member states to balance their budgets or turn in a small surplus in normal cyclical conditions. Governments are required to submit multi-year stability programs, including budget targets, to the European Council, which, together with the European Commission, monitors the implementation of these programs. If a government runs a large deficit, the Council can eventually impose sanctions in the form of a substantial fine. As a result, the member states are now firmly committed to fiscal discipline, both on the revenue and on the spending side. In addition, fiscal consolidation is currently being helped by exceptionally
positive economic conditions. The strong economic upturn, still relatively low levels of interest rates and large-scale, on-off proceeds from mobile telephony license auctions are helping to improve the governments’ financial positions. As a result, the aggregate budget of the EMU member states may well move into surplus in 2000 for the first time in decades.

Table 2

**Economic development in the euro area and the USA**

<table>
<thead>
<tr>
<th></th>
<th>EMU-11</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1998</td>
<td>1999</td>
</tr>
<tr>
<td>GDP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>real, % yoy</td>
<td>2.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Consumer prices</td>
<td>% yoy</td>
<td>1.1</td>
</tr>
<tr>
<td>Fiscal balance</td>
<td>% of GDP</td>
<td>-2.0</td>
</tr>
<tr>
<td>Current account</td>
<td>% of GDP</td>
<td>0.7</td>
</tr>
<tr>
<td>Unemployment</td>
<td>%</td>
<td>10.9</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>1999</td>
</tr>
<tr>
<td>GDP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>real, % yoy</td>
<td>4.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Consumer prices</td>
<td>% yoy</td>
<td>1.6</td>
</tr>
<tr>
<td>Fiscal balance</td>
<td>% of GDP</td>
<td>0.4</td>
</tr>
<tr>
<td>Current account</td>
<td>% of GDP</td>
<td>-2.5</td>
</tr>
<tr>
<td>Unemployment</td>
<td>%</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank Research

All in all, the economic convergence and consolidation in terms of the EU Treaty’s convergence criteria on inflation, interest rates and fiscal conditions show that the EMU member states are making very good progress in their pursuit of sound economic conditions.

This is also reflected in the general economic outlook for the Euro area. Almost all economic data and surveys confirm that the Euro area is experiencing
a dynamic upturn, which in some countries already has the marks of a boom. GDP is expected to grow by 3.75 percent in 2000 and is likely to outpace the U.S. economy in 2001. Foreign demand is the principal driving force behind the economic recovery in EMU. Supported by the relatively low Euro exchange rate, European exports have mainly benefited from the rebound of growth in Asia, the favorable developments in the central and eastern European countries, as well as from the continuing boom in the U.S. Domestic demand, too, has been a driving force in the Euro area’s upturn. Rising real wages and higher employment in many EMU countries have raised consumption in the member states. Investment activity in the corporate sector has also gained momentum.

Under the roof of a common monetary policy, growth differentials continue to exist among member states. Annual growth rates in 1999 extended from 1.4 percent in Italy to 9.9 percent in Ireland. The rates in most EMU economies, however, were much closer to the EMU average of 2.4 percent. Besides, such differentials are neither unusual nor problematic in a monetary union, as the experience of the U.S. shows.

Finally, the favorable economic climate is starting to spill over to the labor market. European unemployment is still high by international standards. In 1999 unemployment in the Euro area stood at 10.0 percent, compared with 4.2 percent in the U.S. Nevertheless, EMU labor markets are recovering, benefiting from the general economic upturn. Employment is expected to expand significantly, especially in the services sectors but also in manufacturing. In addition, the demographics are working in favor of the labor markets, as more retirees are expected to exit the market than young people enter. As a result, unemployment is likely to fall below 9 percent in the course of 2000, the lowest rate since the beginning of the 1990s. Here, too, there are considerable differentials between countries. For example, the Netherlands enjoyed a very low rate of unemployment, 3.2 percent in 1999, while the rate in Spain stood at 15.9 percent in the same year. Despite the positive impact of the cyclical upturn, and despite the progress made so far in liberalizing the labor markets, most EMU member states still have a long way to go to make their labor markets more flexible and competitive. This will require more decisive action, especially at the national level.
III. THE ECB HAS DONE A GOOD JOB ON MONETARY POLICY

In the Euro area responsibility for monetary policy lies with the “Eurosystem” consisting of the ECB and the national central banks of the eleven participating countries (for instance the Deutsche Bundesbank). It assumed this task on the day of the launch of the Euro on January 1, 2000. The changeover in monetary policy and the financial markets was managed successfully. The ECB had an excellent start as the Euro was launched in an environment of price stability. So far the ECB has pursued a pragmatic monetary policy. It has been successful with regard to its primary objective of price stability.

The monetary policy of the ECB has been implemented smoothly and efficiently. The banks are content with the ECB’s modern, market-oriented policy instruments, which focus on open-market operations. The ECB established the main refinancing instrument (“refi-rate”) as the key rate with signal function. Two standing facilities—the marginal lending and the deposit facility—form a corridor for the movements of money market rates, which have been above the refi-rate since the start of EMU. The ECB also introduced interest-bearing minimum reserves. Since interest is paid at a market rate (the refi-rate), banks in Euroland are not at a disadvantage in competition with banks from other countries, or in competition with non-banks. As the minimum reserve requirements have to be fulfilled on a monthly-average basis, they have formed a buffer that has counterbalanced liquidity fluctuations and contributed to a smooth development of money market rates. This contrasts with the gyrations of the Fed funds rate in the U.S.

The ECB has chosen a flexible monetary strategy. Its goal of price stability is defined as a year-to-year increase in consumer prices (HICP) in Euroland of below 2 percent. The strategy is based on two pillars: First, there is a reference value for the broad money supply aggregate M3. Genuine money supply targeting was not deemed to be appropriate because of the great uncertainty about the monetary development as well as unreliable monetary statistics in the initial phase of EMU. The reference value is less stringent than the money supply targets of the Deutsche Bundesbank up to 1998, and thus allows more flexibility. In 1999 the actual growth rate of money supply (6 percent growth in M3 on average) exceeded the reference value (4.5 percent). Nevertheless, the ECB lowered the refi-rate in April 1999. For the year 2000
there is again a reference value of 4.5 percent and the actual growth rate is exceeding the reference value.

The second pillar is a wide range of indicators for future price developments (including various price indicators, business climate, order intake etc.). Monetary policy decisions are based on both pillars. But the ECB does not reveal which pillar has more weight in the decision-making process. This strategy has permitted a flexible monetary policy, but has also made it difficult to predict the ECB’s interest rate decisions.

The ECB’s key interest rate was cut once, in April 1999, when deflationary concerns emerged in the aftermath of the Asian and Russian crises. Since November 1999 it has been hiked five times (to 4.25 percent) in order to contain rising inflation in the wake of higher oil prices and the weak Euro exchange rate. The inflation rate in Euroland, which peaked in March 2000 (2.2 percent), will remain moderate this year at about 2 percent. The core rate—excluding food and energy—is only a good one percent. In my assessment the ECB has put more weight on the second pillar, in other words, its key rate decisions have been based primarily on the expected price development. Given the increased uncertainty, the ECB was right in responding pragmatically, and not mechanically, to deviations from the reference value for money supply.

In June 2000 the ECB adopted a new money market strategy, introducing a repo with a variable interest rate (instead of the fixed-rate repos it has used since the start of EMU). In doing so, the ECB responded to the increasing momentum of the upswing in Euroland. This measure will probably lead to greater volatility in money market rates and pave the way for a further increase in the key rate to about 5 percent by the end of the year. It will also help to strengthen the credibility of the ECB in the markets and among the general public. This is important, since the ECB as a relatively new institution does not have the track record of the Deutsche Bundesbank.

Although the ECB has done a good job, it has, nevertheless, been heavily criticized—by academics, analysts and market participants—for not being transparent and for pursuing an unclear strategy. To a large extent, the criticism with regard to transparency seems exaggerated as the ECB communicates actively with the general public and the markets through publications (e.g. monthly reports), public relations activities (monthly press conferences, speeches etc.) and regular testimony by the ECB president in the European
Norbert Walter

Parliament hearings. Nevertheless, a lack of transparency has been identified, as the ECB does not publish the minutes of ECB governing council meetings and does not reveal the voting behavior in key rate decisions. The ECB does not intend to publish minutes or votes; it has only communicated that decisions are taken by “consensus.” This contrasts with the Fed, which publishes the minutes of its board meetings, albeit with a time lag of six weeks.

The ECB is right in not publishing the minutes, as this could easily lead to national pressure on the members of the governing council (consisting of the six members of the executive board plus the eleven governors of the national central banks) and jeopardize the ECB’s independence and orientation towards a perceived Euroland interest. The same is true of the voting behavior. It would, however, be interesting to know not only the arguments in favor of a key rate decision but also the arguments against, which are not revealed at the ECB’s press conferences.

As far as strategy is concerned, the ECB has been criticized that its two-pillar approach causes difficulties in assessing the relative weight of the pillars and interpreting the various indicators of pillar two. Some critics advocate a stronger focus on money supply. But there is no evidence that a stable relationship exists in Euroland between money supply and price development.

Other critics suggest the ECB should only target inflation. They argue that an inflation forecast like the one used by the Bank of England is easier to communicate and to monitor. However, this approach also has substantial disadvantages. One difficulty lies in producing a reliable inflation forecast. Obviously, there are considerable time lags between the implementation of monetary policy measures and their effects on the inflation rate (twelve to twenty-four months), and there is the risk of a self-fulfilling prophecy if the forecast for inflation is higher than the current rate. Nevertheless, the ECB president, Wim Duisenberg, has said that the ECB will publish its inflation forecast in the future. However, there is a lively debate on this issue in the ECB governing council. Given the above-mentioned disadvantages, market participants should not expect too much too soon. The new twist in monetary strategy interpretations probably does not imply that the two-pillar approach will be given up. In a rapidly changing economic and financial environment the
ECB cannot base its monetary policy on an inflation forecast alone; a broad range of other indicators must also be taken into consideration. There is no patent solution for monetary strategy.

It is obviously the fate of the ECB as a new institution to be heavily criticized for an alleged lack of transparency and strategy. There is no debate in the U.S. about the Fed even though it does not publish a clear-cut policy strategy and is far from being transparent. However, the U.S. has the luck of having an outstanding Fed chairman who embodies credibility after many years in office, crowned by economic success.
IV. THE EURO EXCHANGE RATE: CAUSE FOR CONCERN?

The weakness of the Euro on the international foreign exchange markets has put a damper on the pleasure over the currency’s successful start and the ECB’s stability-oriented monetary policy. The Euro has fallen considerably against the other major currencies since it was first quoted. It reached its lifetime lows against the dollar and the yen on May 19, 2000 at USD 0.8875 and JPY 95.69 and against sterling on May 3, 2000 at GBP 0.5711. This was equivalent to a depreciation of 25 percent against the dollar, 28 percent against the yen and 20 percent against the pound. Since then, the Euro has stabilized, but it is still far below the rates which market observers regard as compatible with the economic fundamentals.

A number of reasons can be cited to explain the weakness of the Euro. In the first place, there has been a considerable differential between growth rates in the U.S. and Europe. Despite clear recovery, European growth rates are still below that of the booming U.S. economy. The Fed lately responded to strong growth and the resulting inflationary pressures by raising interest rates. Since interest rates in the EMU area—starting from a lower level—and the U.S. have moved roughly in parallel, convergence in rate levels still has not been reached.

It is claimed that market sentiment has been influenced by a number of structural issues, as well as by cyclical factors. Tax and pension reform, deregulation and market liberalization have been criticized as moving too slowly in a number of EMU member states, inhibiting the realization of the full growth potential of their economies. Furthermore, the failure of European policymakers to conduct coherent economic policies in the EMU area has met with disapproval in the markets.

The ECB has repeatedly pointed out that the exchange rate by itself is not a target of monetary policy. The ECB’s primary objective is to maintain price stability in the Euro area. Nevertheless, the weakness of the Euro on the foreign exchange markets has altered the parameters of monetary policy. First, the Euro’s weakness increases inflationary pressures via import prices. Second, the improvement in price competitiveness due to the low Euro exchange rate supports export growth in the EMU member states, and through multiplier effects, further accelerates overall growth. In response to these potentially inflationary pressures, the ECB has gradually raised the key interest rates.
So far, the ECB has refrained from direct interventions on the foreign exchange markets. Such interventions—if not part of a consistent and credible policy—tend to have little effect as they make only a short-term impression on market participants and are generally perceived as a last resort.

All in all, the Euro’s initial decline is disappointing but not disquieting. The ECB has been successful in containing inflation in the Euro area. Besides that, the Euro weakness has increased the international price competitiveness of the EMU economies and has thereby supported export-driven growth. The fact that most of the EMU member states are tackling the structural problems in their economies and overall growth prospects are positive for the Euro area—in other words that economic fundamentals are clearly moving in favor of the EMU area—suggests that the Euro has considerable potential for appreciation in the medium and long term.

Graph 2

Euro exchange rate vs US dollar and Japanese yen

Source: Deutsche Bank Research
V. ARE FOREIGN RESERVES TOO HIGH IN EMU?

Despite the shortcomings of direct foreign exchange market interventions in the pursuit of long-term goals, foreign exchange reserves constitute an important resource for the management of exchange rate relations. Reserves allow central banks to intervene in the foreign exchange markets and can lend considerable credibility to their external operations.

After the start of EMU, a lively debate developed on the optimal level of foreign reserve assets in the Eurosystem (i.e. the ECB and the national central banks). While some voices from the financial sector, politicians and economists argue that the Eurosystem should sell reserves that are no longer needed for monetary policy (“surplus” reserves) in order to put them to better economic use and to support the Euro exchange rate, the Eurosystem does not see any reason to act. This section analyses the volume and the structure of the reserves after the beginning of EMU as well as the different options of the Eurosystem.

Graph 3

EMU-11: gold & currency reserves

Source: Deutsche Bank Research
What has changed with regard to reserves?

According to the consolidated figures at the beginning of December 1999, the Eurosystem held EUR 330 billion in reserves (foreign currency and gold, excluding IMF positions. See graph 3). Of this amount, EUR 215 billion were foreign exchange reserves. The Eurosystem has the highest reserves in the world; it ranks second after Japan in foreign currency reserves, but far ahead of the U.S. (see table 3). However, the Eurosystem’s foreign exchange reserves are lower than immediately before the beginning of EMU, although the ECB has not intervened on its own account on the foreign exchange market since the introduction of the Euro. This is mainly due to the fact that the foreign exchange reserves which the EMU countries had held in participating currencies (particularly DEM) and ECU before the start of EMU became internal assets with the introduction of the Euro, and were thus no longer foreign exchange.

At the beginning of EMU, the national central banks were required to transfer foreign reserve assets of EUR 39.5 billion (i.e. USD 48.3 billion, valued at EUR 1 = USD 1.16675 on January 1, 1999) to the ECB. The volume of the transferred reserves was determined by the share of EMU

Table 3

Countries with highest gold & currency reserves

<table>
<thead>
<tr>
<th>Currency reserves (Oct. 1999)</th>
<th>USD bn</th>
<th>Import cover months</th>
<th>Share of world reserves %</th>
<th>Gold reserves (Oct. 1999)</th>
<th>USD *)</th>
<th>Import cover months</th>
<th>Share of world reserves %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>262.0</td>
<td>10.7</td>
<td>15.8</td>
<td>EMU-11</td>
<td>120.8</td>
<td>1.8</td>
<td>42.6</td>
</tr>
<tr>
<td>EMU-11</td>
<td>223.3</td>
<td>3.3</td>
<td>13.5</td>
<td>USA</td>
<td>78.3</td>
<td>0.9</td>
<td>27.6</td>
</tr>
<tr>
<td>China</td>
<td>151.5</td>
<td>11.9</td>
<td>9.1</td>
<td>Switzerland</td>
<td>24.9</td>
<td>3.9</td>
<td>8.8</td>
</tr>
<tr>
<td>Taiwan</td>
<td>100.1</td>
<td>11.4</td>
<td>6.0</td>
<td>Japan</td>
<td>7.2</td>
<td>0.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>90.5</td>
<td>6.2</td>
<td>5.5</td>
<td>UK</td>
<td>6.9</td>
<td>0.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Singapore</td>
<td>75.4</td>
<td>8.9</td>
<td>4.5</td>
<td>Russia</td>
<td>4.7</td>
<td>1.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Korea</td>
<td>65.8</td>
<td>7.4</td>
<td>4.0</td>
<td>China</td>
<td>3.8</td>
<td>0.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Switzerland</td>
<td>33.8</td>
<td>5.3</td>
<td>2.0</td>
<td>India</td>
<td>3.4</td>
<td>1.0</td>
<td>1.2</td>
</tr>
<tr>
<td>USA</td>
<td>32.4</td>
<td>0.4</td>
<td>2.0</td>
<td>Venezuela</td>
<td>2.8</td>
<td>2.2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

*) Valued at market prices

Source: Deutsche Bank Research
countries in the ECB’s capital (see table 4). Eighty-five percent of the transferred reserves were foreign currencies, 15 percent were gold. According to the ECB, the foreign exchange reserves are held in USD (90 percent) and JPY (10 percent). The statute of the European Central Bank makes provision for the ECB to call for additional foreign reserve assets from the national central banks, the volume of which is not specified. Market transactions in the reserves still held by national central banks are subject to the approval of the ECB in order to ensure consistency with the single monetary policy.

Table 4
Transfer of foreign reserve assets to the ECB

<table>
<thead>
<tr>
<th>Shares in capital key</th>
<th>Transfers EUR bn</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shares %</td>
</tr>
<tr>
<td>Austria 2.3594</td>
<td>1.2</td>
</tr>
<tr>
<td>Belgium 2.8658</td>
<td>1.4</td>
</tr>
<tr>
<td>France 16.8337</td>
<td>8.4</td>
</tr>
<tr>
<td>Finland 1.3970</td>
<td>0.7</td>
</tr>
<tr>
<td>Germany 24.4935</td>
<td>12.2</td>
</tr>
<tr>
<td>Ireland 0.8496</td>
<td>0.4</td>
</tr>
<tr>
<td>Italy 14.8950</td>
<td>7.4</td>
</tr>
<tr>
<td>Luxembourg 0.1492</td>
<td>0.1</td>
</tr>
<tr>
<td>Netherlands 4.2780</td>
<td>2.1</td>
</tr>
<tr>
<td>Portugal 1.9232</td>
<td>1.0</td>
</tr>
<tr>
<td>Spain 8.8935</td>
<td>4.4</td>
</tr>
<tr>
<td>EMU-11 78.9379</td>
<td>39.5</td>
</tr>
<tr>
<td>Denmark 2.0564</td>
<td></td>
</tr>
<tr>
<td>Greece 1.6709</td>
<td></td>
</tr>
<tr>
<td>Sweden 2.6537</td>
<td></td>
</tr>
<tr>
<td>UK 4.681</td>
<td></td>
</tr>
<tr>
<td>EU, total 100.000</td>
<td>50.0</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank Research

How many reserves does the ECB need?

There are no universal criteria for estimating the surplus reserves of the Euro system, but there are some indications. Generally, reserves are mainly held in order to be able to intervene on the foreign exchange markets.

The necessity to hold foreign exchange reserves for obligatory intervention in the framework of the exchange rate mechanism (ERM) of the European
Monetary System has largely disappeared with the start of EMU. Any intervention within ERM II, in which the currencies of Denmark and Greece have been pegged to the Euro since January 1, 1999, would not require a high level of reserves. The Euro is traded freely against the other major currencies (USD, JPY, GBP, and CHF). Theoretically, the Eurosystem does not need to hold any foreign exchange reserves for intervention in markets with floating exchange rates; in fact, however, all central banks want to hold adequate reserves in order to intervene, for example, in the case of extreme exchange-rate developments. Reserves also enhance confidence. However, there is no objective measure for an appropriate level of reserves. This is ultimately a political decision. Nevertheless, it is clear that if the Eurosystem held adequate reserves before EMU, it now has a surplus.

An international comparison of the extent to which currency reserves cover imports provides a rough indicator. However, it must be taken into account that import cover plays a much less important role for the Euro area, which has an internationally traded currency, than for emerging markets or developing countries, which have only limited market access. Before the beginning of EMU, the participating countries had an import cover of just above two months. Now that intra-EU trade has become domestic trade owing to the Euro, imports of about 3 ½ months are covered (see graph 4). The U.S., in comparison, has an import cover of about half a month. Taking

Graph 4

**EMU-11: import cover of currency reserves**

Source: Deutsche Bank Research
into account the USD’s status as an established reserve currency—a status that the Euro will only gain over time—and granting an additional safety or confidence margin of one month to the Eurosystem, 1.5 months could be an adequate level of import cover. With imports into the Euro area coming to roughly USD 800 billion per year, reserves of the Eurosystem would have to be just over USD 100 billion. Deducting the foreign currency and gold reserves that have already been transferred to the ECB (USD 48.3 billion), the national central banks would have to keep about USD 52 billion in case they are called upon to transfer further reserves.

If we deduct this amount from the volume of foreign currency and gold reserves recently held by the national central banks (USD 288 billion), the import-cover method indicates that the Eurosystem has surplus reserves of USD 236 billion. While some other methods of determining the appropriate level of reserves produce similar results, there is a wide range of estimates. Figures for the surplus reserves range from USD 100 billion to USD 240 billion. But all studies identify a considerable surplus. The result obtained by the import-cover method, lies at the upper end of the range.

Which country has how much surplus reserves?

Table 5 shows how the surplus reserves are distributed among the national central banks. The table is based on the assumption that in the hypothetical event of a call for further foreign reserve assets the same quotas would apply as for the initial transfer of reserves to the ECB. If we consider only the foreign exchange reserves, surplus reserves amount to about USD 138 billion, of which Germany holds USD 38 billion. However, Spain and France have considerable surplus reserves as well (USD 26.5 billion and USD 23.5 billion, respectively).

What options does the Eurosystem have?

The first option is that the Eurosystem continues to pursue its conservative, i.e. passive, reserve policy, since there is currently no compelling reason to reduce the foreign exchange and gold reserves. With its high reserves, the Eurosystem would more than justify its claim to strengthen confidence in the new currency. However, it would also again and again be faced with the reproach that the profit potential of a “popular asset,” namely the foreign
Table 5

**EMU countries: surplus reserves**

(USD bn)

<table>
<thead>
<tr>
<th>Currency &amp; Hypothetical Surplus reserves***</th>
<th>Call reserves</th>
<th>Hypothetical reserves</th>
<th>Surplus reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 14.0</td>
<td>1.3</td>
<td>12.7</td>
<td>AT 3.7</td>
</tr>
<tr>
<td>BE 8.5</td>
<td>1.6</td>
<td>6.9</td>
<td>BE 2.3</td>
</tr>
<tr>
<td>FI 6.3</td>
<td>0.8</td>
<td>5.5</td>
<td>FI 0.4</td>
</tr>
<tr>
<td>FR 33.0</td>
<td>9.5</td>
<td>23.5</td>
<td>FR 27.2</td>
</tr>
<tr>
<td>DE 51.8</td>
<td>13.8</td>
<td>38.0</td>
<td>DE 31.2</td>
</tr>
<tr>
<td>IE 4.6</td>
<td>0.5</td>
<td>4.1</td>
<td>IE 0.1</td>
</tr>
<tr>
<td>IT 18.2</td>
<td>8.4</td>
<td>9.8</td>
<td>IT 22.1</td>
</tr>
<tr>
<td>LU 0.0</td>
<td>0.1</td>
<td>-0.1</td>
<td>LU 0.0</td>
</tr>
<tr>
<td>NL 6.5</td>
<td>2.4</td>
<td>4.1</td>
<td>NL 9.1</td>
</tr>
<tr>
<td>PT 7.9</td>
<td>1.1</td>
<td>6.9</td>
<td>PT 5.5</td>
</tr>
<tr>
<td>ES 31.5</td>
<td>5.0</td>
<td>26.5</td>
<td>ES 4.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>182.2</strong></td>
<td><strong>44.4</strong></td>
<td><strong>137.8</strong></td>
</tr>
<tr>
<td>AT 17.6</td>
<td>1.6</td>
<td>16.1</td>
<td>BE 10.8</td>
</tr>
<tr>
<td>FI 6.7</td>
<td>0.9</td>
<td>5.8</td>
<td>FR 60.2</td>
</tr>
<tr>
<td>DE 83.0</td>
<td>16.2</td>
<td>66.8</td>
<td>IE 4.6</td>
</tr>
<tr>
<td>IT 40.2</td>
<td>9.9</td>
<td>30.4</td>
<td>LU 0.0</td>
</tr>
<tr>
<td>NL 15.6</td>
<td>2.8</td>
<td>12.8</td>
<td>PT 13.4</td>
</tr>
<tr>
<td>ES 36.2</td>
<td>5.9</td>
<td>30.3</td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

***) Assumptions: import-cover target (curr. & gold reserves) of 1.5 months or approx. EUR 95 bn (about USD 100 bn); breakdown of hypothetical call for transfer of further reserve assets: 85% currency, 15% gold. **) Gold valued at USD 280/ounce.

Source: Deutsche Bank Research
exchange reserves, was not being optimally exploited. Gold holdings do not earn profits—or only marginal profits if they are used, for example, for gold lending. Foreign exchange reserves are usually invested in liquid, high-quality assets (above all, government paper). With this option, the most obvious course of action would be to split the foreign exchange reserves in two parts: a liquidity account, managed according to monetary-policy requirements, and an investment account which aims at a good return. The investment account would contain the surplus reserves. The national central banks could either manage the portfolio themselves or entrust some or all of these reserves to professional managers.

The second option is to sell reserve assets. As far as gold sales are concerned, however, the future room to maneuver is limited by the 1999 agreement among fifteen European central banks (among them the ECB, the Bank of England and the Swiss Central Bank) to help stabilize the gold price. It stipulates that sales of physical central-bank gold will be limited to the announced volume of 2,000 tons in the next five years (with 1,300 tons for Switzerland, 400 tons for the UK and 300 tons for the Netherlands) and that gold leasing and use of other gold transactions of the central banks will not be expanded. The gold reserves of the EMU countries will be reduced only by 2.5 percent, i.e. USD 2.7 billion (gold price: USD 280/ounce), by the transactions of the Netherlands.

This is why attention is focusing on the sale of foreign exchange reserves. The current weakness of the Euro is a good opportunity to sell surplus dollar reserves at a profit. For example, the USD reserves of the Bundesbank are valued at DEM 1.56 (annual report 1998), but could currently be sold at roughly DEM 2.05. At the same time, USD sales would support the Euro and remove any suspicion that the ECB is pursuing a policy of “benign neglect” towards the Euro exchange rate.

Problems in reducing currency reserves

If currency reserves are to be reduced, the question of the use of the resulting profits would have to be resolved politically beforehand, if only to maintain confidence. The sale of currency reserves could give rise to profits resulting from the realization of revaluation gains. It would be problematic if these additional central-bank profits flowed into the government budgets because this would ease consolidation constraints and endanger the
independence of the national central banks. In contrast to that, there are no objections to the use of gains in value to reduce government debt. We can only speculate about the volume of potential accounting gains as they depend on the obtainable dollar exchange rates, and the rates at which the national central banks have valued their foreign currency reserves are not known in detail. However, one must bear in mind that a sale will reduce the future profits of the central banks of the Eurosystem.

Another question is when and during what period the surplus reserves are to be sold. The reduction of surplus reserves would—according to the EU Treaty—have to be closely coordinated between the national central banks and the ECB. During the current Euro weakness, relatively high amounts could be sold relatively quickly. However, the market reaction cannot be gauged clearly. The sale of currency reserves might be regarded as a sign of weakness of the young currency and the Euro could trade even lower. The liquidity effects of large-scale currency sales do not represent a problem. The ECB can always increase the volume of its open-market transactions to compensate losses in liquidity.

Finally, the effects on the dollar market must also be taken into account. USD reserves not needed in monetary policy are usually invested in short and medium-term U.S. government paper. These bonds would have to be liquidated in the market before their value in dollars can be exchanged into Euros on the foreign exchange market. While the sale of USD paper by European central banks should not be a problem from a technical point of view, it might represent a psychological burden for the dollar and increase the risk of a “hard landing” of the USD and the U.S. economy. Such a market reaction would certainly not be in the interest of Europe.
VI. THE INTERNATIONAL ROLE—A POTENTIAL CHALLENGE TO THE DOLLAR?

The advent of the Euro has also an international dimension. Of course, the U.S. dollar is the dominant international currency. But the Euro also has an important international role as a trading, investment, reserve and anchor currency stemming mainly from the EMU legacy currencies, especially the DEM. Irrespective of the weak exchange rate the Euro has the potential to play a more important role than the legacy currencies. The rationale behind this is that two main preconditions for internationalization are fulfilled: Euroland has a large economy with a significant share in world trade as well as large and liquid financial markets.

EMU has created the second largest economic area after the U.S., but well ahead of Japan (see table 1). Although Euroland has a larger population than the U.S., it produces the equivalent of around 80 percent of U.S. GDP. Euroland is the most important global trading region: it ships almost 13.2 percent of the world’s exports and absorbs 12 percent of world imports. It produces about 15 percent of global GDP. With a ratio of exports of goods to GDP of 13.2 percent, Euroland’s “degree of openness” is higher than that of the U.S. or Japan.

EMU also established the second largest financial market after the U.S. (see chapter VII.). The new Euro money, bond and equity markets are much bigger and more liquid than the isolated national markets were before the start of EMU. Euroland has low inflation and interest rates, and thus provides attractive investment and financing conditions.

Where does the Euro stand with regard to its international role as a trade, investment, reserve and anchor currency? While there is hardly any recent statistical coverage of the Euro’s use as an international trade and reserve currency, it is obviously in widespread use on financial markets and as an anchor currency.

With regard to trade invoicing, the most recent survey was carried out in 1992. At that time about 28 percent of world trade was invoiced in Euro-area currencies, compared with almost 50 percent in U.S. dollars. Given the fact that intra-European trade became domestic trade with the establishment of EMU, roughly 20 percent of world trade is likely to be denominated in Euros.
and roughly 60 percent in U.S. dollars. The fact that Euroland is a large trading partner may trigger greater use of the Euro in trade invoicing, especially with non-EMU western European countries as well as eastern European and Mediterranean countries. The introduction of Euro cash and a stronger exchange rate vis-à-vis the dollar would probably be helpful to promote the use of the Euro in this field.

With regard to the Euro’s role as an international investment currency the picture has been mixed. Well ahead of the start of the Euro there were some studies forecasting that the advent of the Euro would lead to portfolio adjustments and a substantial shift of funds from the dollar into the Euro. For instance, Fred Bergsten estimated that the potential for the shift of funds would be between USD 500 billion and USD 1,000 billion. If such a shift materialized that would be probably associated with a considerable strengthening of the Euro vis-à-vis the dollar. On the other hand investors located in Euroland will also diversify their funds in other currencies. The net effect on the exchange rate remains to be seen.

The attractiveness of the Euro for foreign investors has been limited so far. The weak Euro exchange rate has been one reason. Those international investors, for instance institutional investors from Japan, who shifted funds into the Euro at the beginning of EMU expecting the Euro to rise at that time have suffered losses because of the depreciation of the currency. Many of them were disappointed and withdrew their funds from Euro financial markets. Admittedly, the improvements in the Euro financial markets may not have fulfilled the far-reaching expectations, as there are still obstacles to deeper integration of the securities markets. Moreover, there has been a market perception that the necessary structural reforms are taking place too slowly, thus preventing Euroland from achieving sustainable economic growth. But this is only partly true as structural reforms of tax and pension systems are well under way.

On the other hand the Euro has been attractive for international debtors, especially bond issuers. The market share of Euro-denominated international bond issues equaled that of dollar bonds in 1999 (46 percent), whereas the share of the Euro’s legacy currencies in 1998 was only 33 percent (USD: 60 percent). Low interest rates and a substantial broadening of the investor base contributed to the dynamic development of international bond issues in Euros.
It is perhaps even more surprising that Euroland stock markets have far outperformed the U.S. stock markets since the start of EMU in January 1999 (see graph 8). There are several factors supporting the internationalization of the Euro as an investment currency: the ongoing dynamic development of Euro securities markets, rising liquidity, the consolidation of stock market structures, leading to lower transaction costs, excellent growth performance, etc.

As far as reserve currency status is concerned, about 15 percent of worldwide official holdings of foreign exchange were in Euro-area currencies at the end of 1998, whereas the U.S. dollar accounted for 60 percent. But DEM reserves which had been held at the EMU central banks for the purpose of market intervention within the former European Monetary System (EMS) became Euro assets at the start of EMU, thereby losing their character as foreign exchange reserves. As a consequence, the share of the Euro in worldwide reserve holdings is below that at the end of 1998. However, the role of the Euro as an international reserve currency will grow. Countries that use the Euro as a yardstick for their exchange-rate policy are expected to hold a major part of their foreign exchange reserves in Euros. EMU financial markets offer attractive investment opportunities for those countries that manage their assets on return considerations. Some Asian countries with huge stock of foreign currency reserves might especially have an interest in diversifying part of their assets from dollars into Euros. One precondition seems to be, of course, that the phase of pronounced weakness of the Euro exchange rate is overcome.

Last but not least, the Euro plays an increasing role as an anchor currency. More than thirty countries have already pegged their currency to the Euro or use the Euro as orientation for their exchange policy. This is not only true of the new Exchange Rate Mechanism (ERM II) and the CFA zone in Africa but also of some Mediterranean and most Eastern European countries. Economic links and geographical vicinity to the Euro area are important motives. So, too, is the political aim—shared by most central and Eastern European countries—to become an EU member state in the years to come.

Against this background the Euro has the potential to challenge the U.S. dollar as the international currency of choice. For the time being the dollar is, however, expected to remain the most important international currency. The
ECB has announced that it will take a neutral stance, i.e. it will neither promote nor hinder the internationalization of the Euro. The current weakness of the Euro is a temporary phenomenon and no obstacle to increasing international use of the European currency in the medium term. The internationalization of the Euro is expected to be a market-driven, multi-year process. We expect that use of the Euro as an international trade, investment and reserve currency will increase. It is likely to reach market shares of between 30 and 40 percent by 2010. There will be a neck-on-neck race with the dollar for the leading position in international bond issues. The Euro will also continue to have an important role as an anchor currency.
VII. THE EURO RESHAPES EUROPEAN FINANCIAL MARKETS: AN OVERVIEW

Owing to the very close links between the financial markets and monetary and exchange-rate policy, the markets have been particularly strongly affected by the currency changeover. Overall, they have gained in a number of ways from the single currency. As the common unit of account, the Euro makes it easier to directly compare the prices of financial products in the different countries. This makes the financial markets more transparent and simplifies financial transactions. The elimination of the national currencies has done away with costs for foreign-exchange transactions. Moreover, since exchange-rate risks no longer exist within EMU, currency-hedging costs now only arise in foreign-exchange dealings with non-EMU countries.

This has greatly improved the situation for both issuers and investors in the EMU financial markets. Now that the currency borders between the EMU member states have disappeared, the national financial markets are increasingly merging into one single investment and issuing market. For investors this broadens the investment horizon and the possibilities for diversifying gives issuers and investors easier access to the capital markets risk and optimizing returns, and for issuers it enlarges the potential investor base.

The Euro is playing a major role as catalyst in the structural change taking place in the European financial markets. Historically, companies in continental Europe have preferred to take up bank loans to finance their operations. Unlike in the U.S., for example, they have not traditionally made great use of share offerings and bond issues. However, the growing pressure of competition is now forcing companies in Europe to tap more efficient, and more favorably priced, sources of financing through the capital markets. As a result, most of the continental European financial markets have been undergoing a process of structural change since the early 1990s. The share of equities and corporate bonds in total market volume is growing significantly. Since the single currency throughout EMU, it is indirectly contributing to this process of disintermediation.

Even with the common currency, however, the financial markets in EMU still show national differences that have so far prevented them from integrating completely to form a unified market, like that in the United States, for example. Compared with the U.S., the EMU member states still have a large number of clearing and settlement systems for both payments and securities. In addition,
settlement and custody risks remain greater in the case of cross-border transactions. Differences in taxation also influence the behavior of issuers and investors in EMU.

But the Euro is having a salutary effect here, too. Now that the market distortions due to exchange-rate fluctuations have been eliminated, the remaining obstacles on the road to a single market have become more conspicuous. This puts increasing pressure on politicians and market participants to dismantle these as well.

The EMU area is thus in the course of developing from the nationally segmented markets of the past into an increasingly integrated, single financial market. Apart from the lingering national differences, the pace of integration also varies between the money, bond and equity markets.

Graph 5

EMU financial markets in international comparison

1999

Source: ECB, Deutsche Bank Research
Rapid money market integration

A highly liquid money market with a single money market rate throughout Euroland was established right from day one of EMU. The implementation of new real-time payment systems, especially TARGET\textsuperscript{3}, which is run by the European System of Central Banks (ESCB), and the Euro-1 system of the Euro Banking Association (EBA), has helped enormously. These systems allow real-time processing of large-amount payments among banks throughout Euroland, thus fulfilling the prerequisite for interest-rate arbitrage and the creation of a single money market rate. The high degree of money market integration is underpinned by the fact that cross-border transactions account for more than 50 percent of all money market deals.

Many market participants, including banks and corporations, have bundled and centralized their Euro liquidity management. This is also true of many European subsidiaries of large U.S. companies. Moreover, money market standards (e.g. the interest day count) were harmonized. Although, in the wake of the consolidation process in the banking industry, the number of banks in Euroland decreased (below 8,000 in January 2000) a larger number of money market counterparties is now available to an individual bank. These factors have also contributed to the very liquid money market.

Market participants rapidly adopted the EURIBOR (Euro interbank offered rate) as reference rate for other financial instruments such as bonds, futures and swaps. EURIBOR, which is available for maturities from one week to twelve months, is used as the successor to the former national reference rates (e.g. FIBOR or PIBOR) and the internationally used LIBOR of EMU legacy currencies. It is determined daily by fifty-seven panel banks including some large American banks operating in Europe. EURIBOR is also an important reference rate for market participants outside Euroland, for instance for issuers offering floating rate instruments in Euros. At the very short end of the money market Eonia (Euro OverNight Index Average) was created as the reference rate for the dynamic overnight index swap market. Eonia-based indexed swaps have gained major importance as a flexible hedging instrument.

Short-term securities: much remains to be done

While full integration has been achieved in the money market with unsecured deposits, much remains to be done in the market segments for short-term securities (repurchase agreements or repos, commercial paper [CP], certificates
of deposit [CDs] and treasury bills), although these markets have also been stimulated by the introduction of the Euro.

For instance, repo agreements in which short-term liquidity is provided against collateral do not only play a key role in the ECB’s open-market policy. There has also been a dynamic development of the repo market between market participants such as banks, insurance companies and corporations in recent years. The markets for private short-term paper and for treasury bills issued by national governments have been rather fragmented so far. Cross-border transactions are still very limited, with the exception of CP. Moreover, short-term securities markets are underdeveloped or even non-existent in several smaller EMU countries.

Given the strong interest of many institutional investors in liquid short paper, the discussion on removing the obstacles must be intensified. This is true for government and private paper alike. The main obstacles are the absence of a European legal framework, deficient cross-border settlement procedures and a lack of liquidity. Governments and market participants must do their homework in order to boost efficiency and liquidity. It is the government’s task to create an adequate legal framework and to provide sufficient liquidity in the short-term government paper market. Only Italy offers a liquid T-bill market. In Germany there is a limit of only EUR 10 billion for this market; it was introduced in the DEM era for monetary policy reasons, but has outlived its usefulness.

As far as cross-border settlements for short-term securities are concerned it is gratifying to note that market participants are aiming to establish a central clearing and settlement institution, which is expected to bring lower transaction costs and higher liquidity. Nevertheless, in the area of short-term securities, Euroland has a long way to go in order to catch up with the U.S. markets in terms of availability and liquidity of instruments.

Integration of bond markets

The introduction of the Euro has virtually fused the bond markets of the participating countries into a unified market. At the end of September 1999 the EMU bond market (including international issues) had a volume of EUR 7,150 billion, which made it the second-largest bond market, behind the U.S., accounting for more than one-fifth of all outstanding bonds world-wide.
Norbert Walter

The integrating force of the Euro is demonstrated especially by the markets for public, corporate and mortgage bonds and for asset-backed securities.

**Public Bonds**

Since the beginning of 1999, bonds issued by the central and regional governments in the EMU member countries have been denominated in Euros, not in eleven different national currencies as before. At the end of September 1999, public bonds in circulation had a total value of EUR 4,005 billion. The market in national government bonds is by far the largest segment. The major issuers here are Italy (31 percent), Germany (22 percent) France (19 percent) and Spain (9 percent). The market for bonds of regional or local governments is not yet very highly developed.

Unlike in the U.S., there is no central issuer of government bonds in EMU. Eleven issuers at the national level vie for the favor of investors. They differ with regard to credit standing, financing requirements and the efficiency of their markets, e.g. in terms of transparency or hedging possibilities. Owing to

**Graph 6**

**Interest rate convergence: 10Y government bonds, a comparison**

![Graph showing interest rate convergence for 10Y government bonds](image)

Source: Deutsche Bank Research
the lack of liquidity in some bonds, a uniform yield curve has not yet evolved for the EMU government bond market.

Government bond yield levels in the eleven member countries had significantly converged even ahead of the introduction of the Euro. This trend has been encouraged by the policy of fiscal consolidation to which the member states committed under the Stability and Growth Pact. Since the countries pursue very similar, strict fiscal goals, the gap between the market’s assessments of the different national issuers is shrinking. Nonetheless, there can still be yield spreads versus the benchmark. In May 2000, for example, the spread on Italian government bonds over Bunds (German government bonds) widened temporarily to 50 basis points owing to uncertainty about the stability of the government coalition in Rome.

Corporate bonds

It had been predicted that the introduction of the single currency would provide a particularly strong boost to the corporate bond market. And the segment did indeed develop vigorously in the first one and a half years of the Euro, even surpassing expectations. Overall market volume is still small compared with the U.S. market, but issuance of corporate bonds increased last year by 285 percent compared with 1998. The figures for the first few months of 2000 point to continuing brisk activity.

A major factor behind the rapid expansion was undoubtedly the increased attractiveness of this segment, for both investors and issuers, following the creation of the single EMU bond market. Above all, demand was fuelled by the convergence of government bond yields. Prior to monetary union, investors could obtain above-average yields by buying different European government bonds, and exploiting yield spreads and exchange-rate movements. The advent of the single currency greatly narrowed the scope for diversification in government bonds. In order to earn higher returns within the EMU area, institutional and private investors now have to concentrate on issuers with a lower credit rating than the governments. This prompted the marked rise in demand for corporate bonds in 1998 and 1999. In addition, government financing requirements declined substantially in 1999, owing to successful fiscal consolidation in the member states. This decline gave additional room for the development of the private securities market.
The creation of EMU has given issuers, too, new incentive to turn to the bond market for funds. Above all, the growing pressure of competition is making companies increasingly keen to ferret out cheap and flexible forms of financing. The single currency facilitates access to the capital markets throughout EMU, i.e. to more liquid markets and lower financing costs. In addition, the surge in M&A activity in the recent past has led to a steep rise in the financing requirements of many companies. This partly explains the growth of the corporate bond market, and is also a reason for the increase in the average size of issues. Before 1998 there had never been a corporate bond issue for more than EUR 1 billion in any of the legacy currencies. In 1999, such issues already made up 25 percent of total new corporate bonds.

Finally, the change in the rating structure points to the growing importance of corporate bonds as a financing instrument for companies with a lower credit standing, and for small and medium-sized companies. Compared with the figures for 1995, the percentage of bonds with an AAA rating has decreased
markedly, with a corresponding increase in other categories, especially A and BBB-rated bonds.

EMU does not yet have a well-developed high-yield segment (corporate bonds with a BBB rating or lower) comparable with that of the U.S. But growth of the EMU high-yield market was way above the international average in 1999. Whereas the worldwide volume of high-yield bonds decreased by 26 percent last year, the European market expanded by more than 14 percent. Dependence on U.S. investors has decreased noticeably: relatively small issues can now be placed in Europe without any liquidity problems.

**Mortgage bonds and asset-backed securities**

A further indication of the growing scale of disintermediation in the EMU financial markets is the expansion of the markets for Pfandbriefe (German-style mortgage bonds) and asset-backed securities (ABS). This growth and the international diversification of portfolios in both areas have received a major impetus from the introduction of the Euro.

With a total outstanding volume of EUR 280 billion, *Jumbo Pfandbriefe* (i.e. Pfandbriefe of at least EUR 500 million) make up the most liquid segment of the EMU bond market after government issues. Ranked against the individual government bond markets in EMU, *Jumbo Pfandbriefe* take fourth place, outstripped only by Italian, German and French government bonds.

*Pfandbriefe* owe their success—80 percent growth in Jumbos in 1998 alone—mainly to three factors. Above all, the *Pfandbrief* market offers high liquidity compared with other segments. *Jumbo Pfandbriefe* issued in the first half of 1999 had an average size of more than EUR 1 billion—well above the required minimum of EUR 500 million. Secondly, *Pfandbriefe* are considered a safe investment as they are backed by mortgages or state guarantees and are subject to tight legal regulation. Thirdly, *Pfandbriefe* offer an attractive yield pick-up over comparable long-term government bonds.

The elimination of the currency borders in EMU has further increased the liquidity of the *Pfandbrief* market. Foreign demand is high, especially for *Jumbos*. Whereas foreign investors had previously taken up 15-20 percent of new *Jumbos*, the figure jumped to over 30 percent after the start of monetary union and has even approached 50 percent at times. The core market for *Pfandbriefe* is Germany, where 70 percent of outstanding *Pfandbriefe* were issued. However, now that the necessary legal framework has been put in
place, there are signs that liquid Pfandbrief markets are also developing in Austria, France, Luxembourg, Spain and Sweden.

The development of the ABS market has been even more dynamic. This segment of the European market only began to expand in the mid-1990s—in contrast to the U.S., where ABS have been an established instrument since the first half of the 1980s. Rapid growth was observed in this segment, too, in the run-up to the introduction of the Euro. The market is now six times as large as in 1997. In 1999 alone, the new-issue volume jumped 60 percent compared with the previous year. This expansion reflects the growing wish on the part of banks to bundle certain assets, e.g. credits to corporate clients, and issue them in the form of bonds. As in the case of Pfandbriefe, the Euro will likely act as a catalyst in this segment, fostering securitization by facilitating cross-border issuance and investment within EMU.

**On the way to a unified stock market?**

Aggregate stock market capitalization in EMU came to over EUR 6 billion at the end of April 2000. This makes the EMU market the world’s second-largest, behind the U.S. and ahead of Japan. In relation to GDP, however, it is much smaller (71 percent) than those in the U.S. and Japan (163 percent and 138 percent, respectively). This is a further reflection of the traditionally strong emphasis on bank financing in most EMU countries.

The integrating influence of the single currency shows up in two ways. First, the Euro is encouraging the process of concentration in the still relatively fragmented European stock market landscape. Europe has not only national stock markets, but also smaller, regional markets. However, the alliances concluded between European stock exchanges in the recent past show that a process of integration, which should benefit market efficiency, is already under way. The exchanges in Paris, Amsterdam, and Brussels work together in Euronext (24 percent of western European market capitalization), while Deutsche Börse AG and the London Stock Exchange are teaming up under the name iX (43 percent).

Like the market fragmentation, the operation of different trading systems is costly, has a negative effect on market liquidity, and impedes the development of a unified European stock market. But efforts are being made in the stock market, too, to synchronize trading hours and to standardize trading, settlement and clearing systems.
Second, the Euro has greatly changed investor behavior. Owing to the convergence between the economies of the EMU member states, country-related investment criteria are losing in significance whereas attention is concentrating increasingly on differences between European industries. Stock indices covering the whole of the EU or EMU are now firmly established benchmarks for the success of European investment strategies. The reorientation in investment strategies is already reflected in investor behavior. The soaring volume of cross-border transactions in shares shows that investors are increasingly internationally minded. Since 1997 the volume of stocks bought by Germans abroad has more than doubled. The same goes for foreign investors’ share purchases in Germany. Diversification within the Euro area accounts for a substantial proportion of this international investment. The pattern for mutual funds is similar. Whereas German funds (those open to the general public) investing primarily in Germany registered a net outflow of nearly EUR 1 billion in 1999, those investing mainly in Euro-denominated stocks or throughout Europe had a net inflow of EUR 10 billion.
The Euro has certainly provided an important impulse to the stock markets in EMU. At the same time, the consolidation in the stock exchange landscape and the change in investor behavior have also to be seen in the context of the growing internationalization of financial markets world-wide. The merger of the Frankfurt and London stock exchanges and, above all, the plans for cooperation between stock exchanges on a global scale show that the pressure to consolidate extends far beyond the Euro area. The international diversification of investment portfolios does not stop at the borders of EMU and will increasingly extend beyond them in the years to come.
VIII. THE ENLARGEMENT OF THE EMU AREA: EU-4...

Evidently, the introduction of the Euro has changed the environment for the economies, and the financial markets in particular, of the EMU member states. What about the countries not participating in the Euro-project? Four of the fifteen member states of the EU did not join EMU from the start: Denmark, Greece, Sweden and the United Kingdom. Greece had not succeeded in fulfilling the convergence criteria the EU Treaty imposes as a condition for entering the currency area. The two Scandinavian countries and the UK chose not to join for political reasons.

Prospects for the entry of the four countries are mixed. Greece is set to participate in EMU from January 1, 2001 after having received a favorable convergence assessment from the ECB and the European Commission in May 2000. Euro notes and coin will be introduced in Greece in the first half of 2002, at the same time as the current EMU members change over from their national currencies.

In Denmark, Sweden and the UK considerable political reservations prevail with regard to participation in EMU. Their decisions on whether to join will be heavily dependent on public opinion, not least because entry is to be conditional on a positive outcome of public referenda. Denmark will hold a referendum on September 28, 2000. If the result is favorable, it would possibly enter EMU in 2002. In Sweden and the UK, referenda will not be held before 2002. After the successful start of EMU, public opinion in all three countries turned in favor of joining. However, support for EMU entry has declined again, especially against the background of the Euro’s weakness versus the dollar. The British public, in particular, is concerned about surrendering further elements of sovereignty to the EU level. Political parties in both Sweden and the UK feel uneasy about making clear commitments in favor of EMU. Consequently, it is still unclear if and when the three countries will join the present members of EMU.

Exchange-rate relations between EMU and the four non-participants remain diverse. Greece and Denmark have participated in the Exchange Rate Mechanism II which ties their currency to the Euro via a central parity around which their exchange rates can fluctuate within a pre-defined band of +/- 15 percent and +/- 2.25 percent respectively. Partaking in the ERM II in principle constitutes a prerequisite for joining EMU, as it is part of fulfilling the convergence criteria. Sweden and the UK have not yet entered the exchange rate mechanism, and maintain they are not willing to join it.
IX. ... AND APPLICANTS FROM CENTRAL AND EASTERN EUROPE

Ten central and eastern European countries are currently negotiating accession to the EU: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia. As EMU membership is an integral part of the obligations under the EU Treaty, these countries will later also adopt the Euro and join EMU. An EMU area consisting of the present fifteen EU member states and the ten central and eastern European applicants would be a single economic area of considerable magnitude, comprising 480 million inhabitants and a GDP of nearly USD 9 trillion. In addition, integration into EMU would further underpin the economies of the central and eastern European countries and contribute to political stability.

An EMU-25, however, is still quite a long way off. The timetable for accession to EMU can be divided into three stages. First, the applicant countries have to become members of the EU. Time schedules for accession to the EU will be drawn up on a country-by-country basis. Membership in the EU does not mean that a country automatically belongs to EMU. After entering the EU, applicant countries, secondly, have to qualify for EMU membership. The latter chiefly implies meeting the convergence criteria, which stipulate clear conditions for entering EMU in terms of inflation, interest and exchange rates and government deficits and debt. Third, accession to EMU will be followed by a transitory period for the introduction of notes and coin, after which the changeover is complete.

The process of economic convergence in advance of entering EMU will be of utmost importance both for the EMU applicants as well as for the current members of the Euro area. The higher the degree of nominal and real economic divergence between a new entrant and the existing currency union, the higher the costs of economic adjustment in terms of economic growth, unemployment or fiscal redistribution among member states. This, in turn, could endanger the stability of the common currency and undermine the effectiveness of monetary policy. Inflation is still a major problem in a number of countries, and bond yields exhibit a high-risk premium measured against the EMU level.

Even though it is too early to assess the chances of membership for individual countries, it is evident that the central and eastern European countries still have quite a way to go until they will enter the Euro area. As far as membership in the EU is concerned, the first countries can be expected to
enter by 2005. Considering the significant differences in terms of economic structure and performance between most applicant countries and the EMU member states, the second stage, qualifying for EMU, may well take considerably longer than the theoretical minimum of two years. All in all, the first eastward enlargement of the EMU area looks feasible for the end of this decade, but it may be well into the 2010s before all the central and eastern European applicants become members.

Table 6
EMU after enlargement: international comparison
Data as of 1999

<table>
<thead>
<tr>
<th>General indicators</th>
<th>EMU-25*</th>
<th>U.S.</th>
<th>JP</th>
</tr>
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<tbody>
<tr>
<td>Population m</td>
<td>480</td>
<td>272</td>
<td>127</td>
</tr>
<tr>
<td>GDP USD bn</td>
<td>8,816</td>
<td>9,255</td>
<td>4,380</td>
</tr>
<tr>
<td>GDP per capita USD</td>
<td>18,351</td>
<td>34,090</td>
<td>34,490</td>
</tr>
<tr>
<td>Share in OECD GDP %</td>
<td>35.5</td>
<td>37.2</td>
<td>17.6</td>
</tr>
<tr>
<td>Unemployment rate %</td>
<td>9.5</td>
<td>3.9</td>
<td>4.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public sector</th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Expenditure ratio % of GDP</td>
<td>46.1</td>
<td>30.1</td>
<td>38.1</td>
</tr>
<tr>
<td>Budget balance % of GDP</td>
<td>-0.8</td>
<td>1.0</td>
<td>-9.4</td>
</tr>
<tr>
<td>Government debt % of GDP</td>
<td>66.9</td>
<td>59.0</td>
<td>116.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foreign trade</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Exports % of GDP</td>
<td>9.1</td>
<td>7.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Imports % of GDP</td>
<td>9.3</td>
<td>11.5</td>
<td>7.1</td>
</tr>
<tr>
<td>Current account USD bn</td>
<td>-13</td>
<td>-365</td>
<td>108</td>
</tr>
</tbody>
</table>

* Prospective EMU-25 consisting of the current 15 EU member states and the ten applicant countries in Central and Eastern Europe, namely Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

Source: ECB, Deutsche Bank Research
With the irrevocable fixing of the exchange rates and the changeover of the financial markets to the Euro on January 1, 1999 the most critical phase of the project of European monetary union was successfully accomplished. Nevertheless, there is still a lot to do before the work is completed. EMU is now in a transition phase that will last until the end of 2001. While monetary policy and the financial markets have operated in Euros right from the start of EMU in January 1999, others can use the Euro but are not obliged to do so, according to the principle of “no compulsion—no prohibition.” Many large companies in Europe have already switched their internal computer, accounting and reporting systems and their external business relations (pricing, invoicing etc.) to the Euro whereas most small and medium-sized firms (SMEs) and the public sector are still operating in national currency. The same is true of retail banking with private and SME clients. Only a very small share of retail bank accounts has been changed to the Euro. The big challenge for the private and the public sector is to complete the changeover to the Euro by the end of 2001 at the latest. Enterprises that are not Euro-fit by then run the risk of losing turnover and market share.

Pricing in Euros (in addition to pricing in the national currencies) is already widespread both in business-to-business trade and in the retail sector. But eye-catching prices are mostly still quoted in the national currency. And enterprises and people still calculate and think in the national currency. What we urgently need is a price consciousness in Euros. This will certainly develop when the Euro is available and visible in the form of Euro notes and coins.

The introduction of Euro notes and coins, which is the last major step in the EMU process, will start towards the end of 2001 and will be completed by the end of February 2002. At the beginning of 2002 the Euro cash will become legal tender in all EMU countries. National cash will be withdrawn within two months. It will lose the role of legal tender at the end of February 2002 at the latest. The exchange of cash is a tremendous logistic challenge for all parties involved, such as the central banks, banks, retailers etc. The preparations are already in full swing. Production of Euro cash started in 1999. About sixty billion Euro coins and nine billion Euro notes have to be distributed to the general public in the EMU member countries. It goes without saying that many problems concerning transportation, storage and security still have
to be solved. The ECB will launch a broad-based information campaign on Euro notes and coins in close co-operation with the national central banks, governments and the European Commission. Only after the introduction of Euro cash will EMU have been completed in a technical sense. The Euro will then be a fully-fledged currency that can compete with the U.S. dollar on an equal footing.

ENDNOTES

1  According to the provision of the EU Treaty (Article 121 of the Treaty establishing the European Community and the Protocol on the convergence criteria referred to in Article 12 of the Treaty establishing the European Community), a member state has to fulfil the following convergence criteria to qualify for EMU membership:

- An average rate of inflation, observed over a period of one year before the examination, that does not exceed that of, at most, the three best performing member states in terms of price stability by more than 1.5 percentage points.
- Participation in the exchange-rate mechanism of the EMS and observance of the normal fluctuation margins for at least the last two years before the examination.
- An average nominal long-term interest rate on government bonds, observed over a period of one year before the examination, that does not exceed by more than two percentage points that of, at most, the three best performing member states in terms of price stability.
- Government deficit of 3 percent of GDP and government debt of 60 percent of GDP at most, unless the ratio is close to the reference value and either has already declined substantially or exceeds the reference value only temporarily.

2  There is no official figure for the reserves just before the start of EMU. On the basis of national data, we estimate them to be at EUR 276 billion. However, this figure is not entirely comparable due to new, market-oriented valuation principles.

3  TARGET (Trans-European Automated Real-Time Gross-Settlement Express Transfer System) links national real-time gross-settlement systems to ensure rapid settlement of Euro payments emanating from ESCB (European System of Central Banks) monetary policy operations.
Norbert Walter

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* No longer available.