

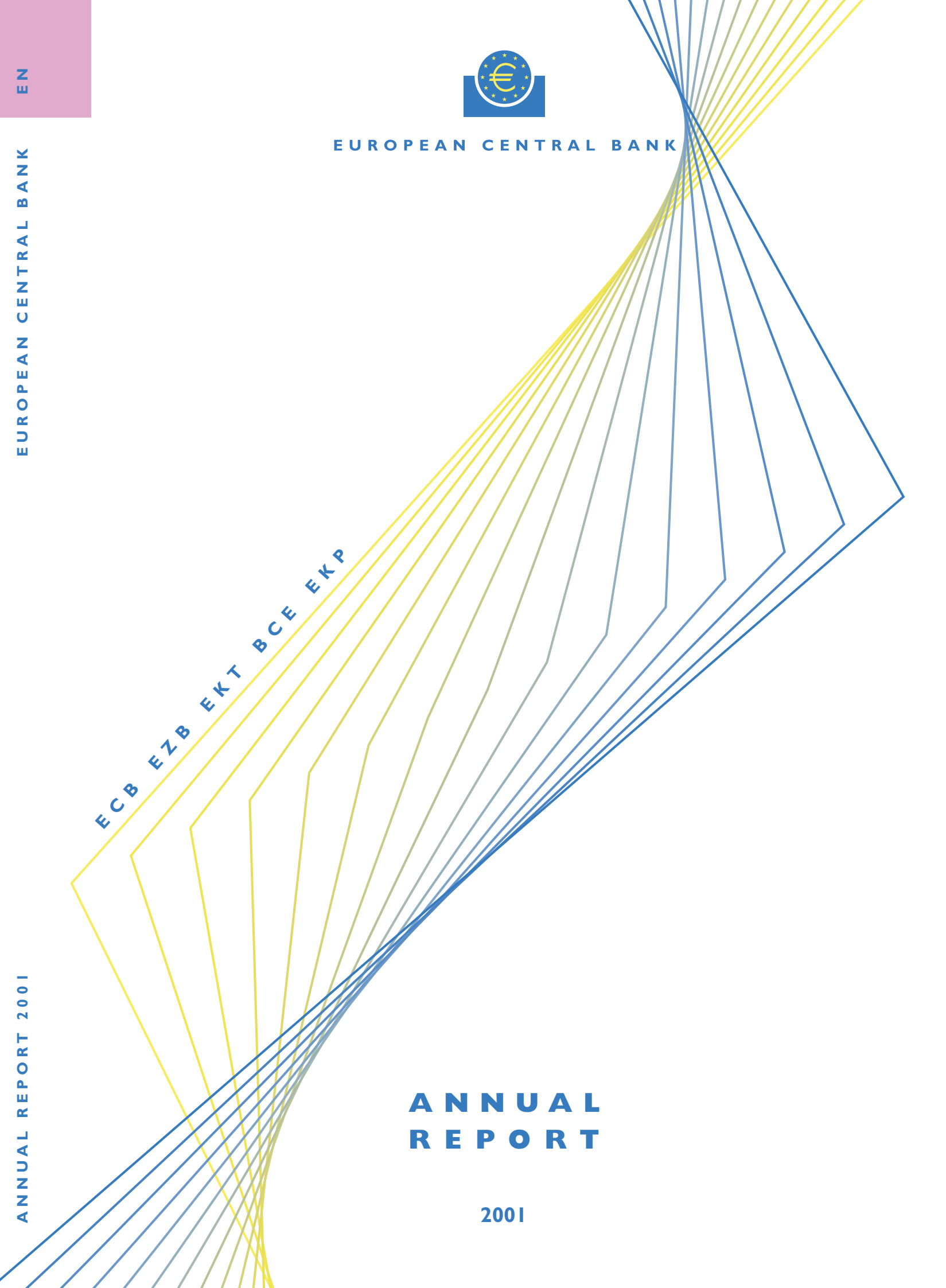


EUROPEAN CENTRAL BANK

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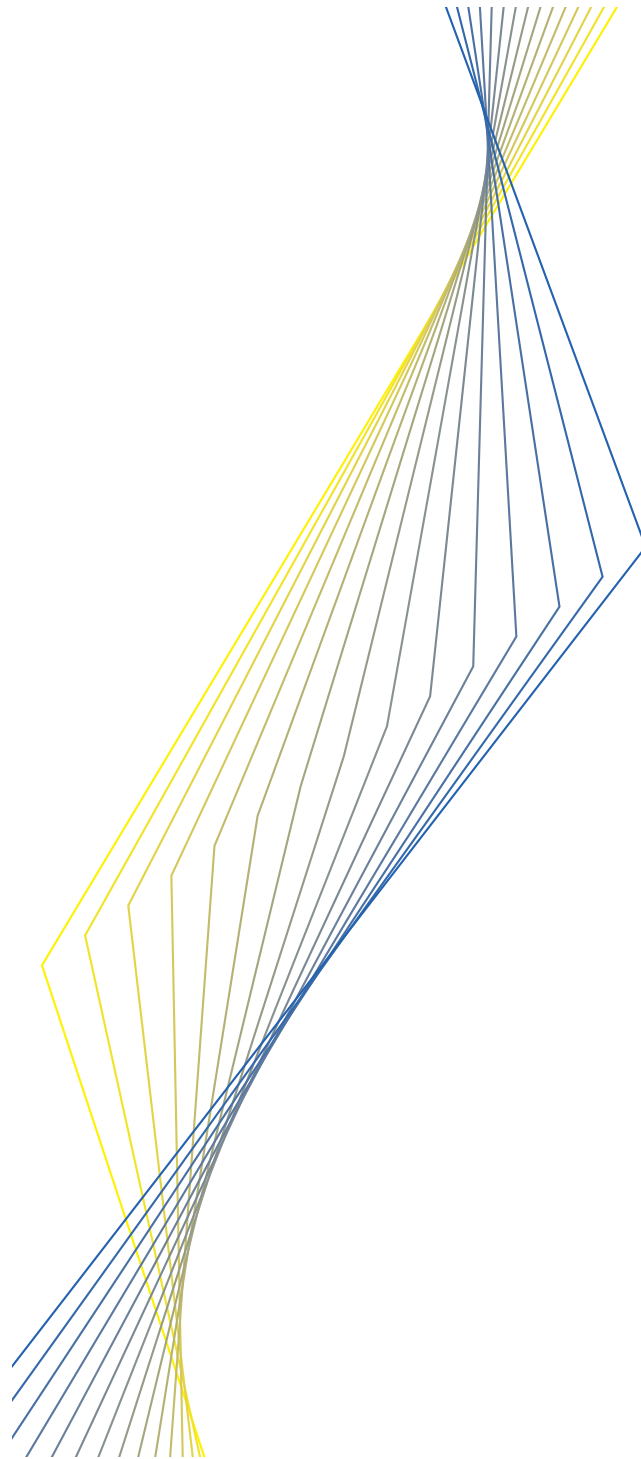
ANNUAL REPORT

2001





EUROPEAN CENTRAL BANK



**ANNUAL
REPORT**

2001

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Abbreviations

Countries

| | |
|----|----------------|
| BE | Belgium |
| DK | Denmark |
| DE | Germany |
| GR | Greece |
| ES | Spain |
| FR | France |
| IE | Ireland |
| IT | Italy |
| LU | Luxembourg |
| NL | Netherlands |
| AT | Austria |
| PT | Portugal |
| FI | Finland |
| SE | Sweden |
| UK | United Kingdom |
| JP | Japan |
| US | United States |

Others

| | |
|-------------|---|
| BIS | Bank for International Settlements |
| BPM5 | IMF Balance of Payments Manual (5th edition) |
| CDs | certificates of deposit |
| c.i.f. | cost, insurance and freight at the importer's border |
| CPI | Consumer Price Index |
| ECB | European Central Bank |
| ECU | European Currency Unit |
| EER | effective exchange rate |
| EMI | European Monetary Institute |
| ESA 95 | European System of Accounts 1995 |
| ESCB | European System of Central Banks |
| EU | European Union |
| EUR | euro |
| f.o.b. | free on board at the exporter's border |
| GDP | gross domestic product |
| HICP | Harmonised Index of Consumer Prices |
| ILO | International Labour Organization |
| IMF | International Monetary Fund |
| MFI | Monetary Financial Institutions |
| NACE Rev. 1 | Statistical classification of economic activities in the European Community |
| NCBs | national central banks |
| PPI | Producer Price Index |
| repos | repurchase agreements |
| SITC Rev. 3 | Standard International Trade Classification (revision 3) |
| ULCM | Unit Labour Costs in Manufacturing |

In accordance with Community practice, the EU countries are listed in this Report using the alphabetical order of the country names in the national languages.

The euro cash changeover in the 12 euro area Member States was a historic event. The 14 dividing pages between the chapters of this Annual Report feature scenes from the cash changeover drawn from a collection of photographs commissioned by the European Central Bank. The work of photographer Claudio Hils, they depict preparations across the euro area, ranging from the design and production of the euro banknotes and coins to €-day itself on 1 January 2002.

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European Central Bank: **The euro symbol in front of the Eurotower was illuminated for the first time at midnight on 31 December 2001**

Foreword



In this foreword to the Annual Report 2001, I should first like to mention the euro cash changeover, which started on 1 January 2002 and which represents an important milestone in the European monetary integration process. It went far more smoothly than could have been expected and the national banknotes were largely withdrawn well before 1 March, the date on which the last remaining legacy currencies of the euro ceased to be legal tender in any of the euro area countries. I should like to express my sincere gratitude to all citizens of the euro area, who accepted the new euro cash with enthusiasm, and to the financial and economic agents that contributed to making the cash changeover a success. After three years of existence, the euro – with the introduction of the banknotes and coins – finally became a tangible reality for more than 300 million euro area citizens.

The euro cash changeover followed a year in which inflation in the euro area, measured in terms of the Harmonised Index of Consumer Prices (HICP), was 2.5%, 0.2 percentage point higher than in 2000. The slight increase in inflation last year was mainly due to developments in the more volatile components of the HICP, namely energy and

unprocessed food. The knock-on effects of the increase in energy prices and the depreciation of the effective exchange rate of the euro in 2000, as well as the consequences of the spread of livestock diseases in a number of euro area countries on the prices of unprocessed food, were among the main factors contributing to the increase in the inflation rate, which reached its peak in May 2001 (3.4%), and then gradually declined to 2.0% in December (in year-on-year terms). This turnaround was mainly a result of the gradual unwinding of the factors that had generated inflationary pressures in late 2000 and in the first months of 2001. In early 2002, inflation increased somewhat, owing to base effects, increases in indirect taxes in some countries and adverse weather conditions. However, the impact on price developments of the euro cash changeover appeared to be small or even negligible.

In the course of last year, the overall risks to price stability gradually declined. Economic conditions in the euro area worsened as a result of the global economic slowdown which started to materialise at the end of 2000. The terrorist attacks in the United States increased uncertainty and prolonged the economic downturn. Against the background of declining inflationary risks in the euro area, the Governing Council of the European Central Bank (ECB) decided to lower the key ECB interest rates four times in the course of last year, by a total of 150 basis points. Since 8 November 2001, the Governing Council has kept the key ECB interest rates unchanged, at levels appropriate for the maintenance of price stability over the medium term, with the minimum bid rate at 3.25%. Although annual M3 growth rose to high levels in late 2001, this development was not considered to be a threat to the prospects for price stability in the euro area. Rather, it had to be seen primarily in the context of substantial financial market uncertainty in the second half of 2001. At the turn of the year the first signs emerged of renewed growth in the euro area economy. While the strength of the economic recovery remains subject to some uncertainty at the

current juncture, conditions are in place in the euro area to ensure that a recovery will take place.

The worsening of economic conditions in the course of 2001, in combination with those factors that had temporarily increased inflation rates in the early part of the year, presented major challenges for the conduct of monetary policy in the euro area. Nevertheless, 2001 ended with the prospect of inflation soon being in line with the ECB's definition of price stability, an annual increase in the inflation rate of below 2% and a positive outlook suggesting that price stability would prevail in the medium term.

In this respect, the level of long-term interest rates in the euro area indicates that financial markets have confidence in the determination and ability of the ECB to maintain price stability in the medium and longer term. In addition, various indicators of the inflation expectations of economic agents have clearly shown that the credibility of the ECB with regard to delivering price stability in the medium term is very high. This, in turn, is reflected in the relatively low degrees of inflation uncertainty prevailing in the euro area, as can be seen, for example, from the structural reduction in inflation risk premia in the euro area, which illustrates very convincingly the real economic benefits which the euro area has derived from the consistent pursuit of stability-oriented policies over the years.

The economic downturn in the euro area in 2001 also presented challenges for fiscal policy. The average budget deficit of the countries that have adopted the euro increased last year to 1.3% of GDP, as a result of both the working of automatic stabilisers and the implementation of major tax cuts in some euro area countries. It was the first time since 1993 that the overall fiscal position of the euro area had deteriorated. As a result, most countries failed to meet the targets laid down in their stability programmes, submitted in late 2000. On average, these targets were missed by 0.7%

of GDP. The rules of the Stability and Growth Pact allow, in principle, for automatic stabilisers to work if economic growth deviates from its trend rate. If countries have achieved, over the medium term, a balanced budget or a surplus, it is very unlikely that normal business cycle fluctuations would lead the budget deficit to exceed 3% of GDP, which is the threshold laid down in the Treaty. This is why it is so important that those countries that have not yet achieved a balanced budget or surplus over the medium term should try to do so as soon as possible. In this respect, the Stability and Growth Pact was put under strain in the course of last year and early this year, but it kept working. If countries were not to adhere to the Stability and Growth Pact and were to fail to use the economic recovery to improve their fiscal position substantially, the credibility of fiscal policy in the euro area would be seriously impaired. This would not only have adverse consequences for medium-term economic growth, but would also make the monetary policy task of maintaining price stability more difficult.

2001 also marked the tenth anniversary of the conclusion of the negotiations on the Treaty on European Union. The macroeconomic policy framework laid down in this Treaty has served the European Union and the euro area well. Following the ill-fated experiences of the 1970s and 1980s, the drafters of the Treaty realised that monetary and fiscal policy should not be geared towards fine-tuning economic activity, but should rather create a stable macroeconomic environment. Only in this way can they make a lasting contribution to economic growth. For this reason, monetary policy should serve to maintain price stability, while fiscal policy should aim to ensure sound public finances.

In the same vein, the rate of potential growth in the euro area, estimated by the ECB at 2% to 2.5% per annum, can be raised only by structural reforms aimed at improving the functioning of markets. A more flexible labour market and continued wage moderation are also of paramount importance in reducing

the unacceptably high level of unemployment, which amounted to 8.3% last year. In the course of last year, a number of initiatives were taken (in particular as regards product markets), some of which stemmed from the Lisbon European Council in March 2000, at which the importance of structural reforms to promote economic growth and reduce unemployment in the European Union was emphasised. However, overall progress in these areas has to be speeded up. Indeed, the main challenge for the European Union and the euro area in the years to come is to make substantial progress with such structural reforms.

The replacement of national currencies by the euro raises important issues concerning the distribution of monetary income in the Eurosystem, i.e. the ECB and the national central banks (NCBs) of the Member States participating in the euro area, which collectively perform the central banking functions for the area as a whole. Against this background, the Governing Council decided, in December last year, on the issuance of euro banknotes and the allocation of monetary income. According to this decision, the ECB will issue, as from 2002, 8% of the total euro banknote requirement, while the issuance of the remaining 92% is to be divided between the NCBs of the Eurosystem in accordance with their shares in the ECB's capital. The seigniorage income earned by the NCBs on euro banknotes issued will be included in the monetary income, which has to be pooled and redistributed in accordance with the provisions laid down in the Statute of the European System of Central Banks and of the European Central Bank. In order to mitigate its impact on the relative financial positions of the NCBs, the new regime will be phased in progressively during a transitional period which will end in 2007. As from 2008, all monetary income earned will be distributed among the NCBs in accordance with their shares in the ECB's capital.

At the end of 2001 the number of staff employed by the ECB from all 15 Member

States stood at 1,043, with total budgeted staff positions at 1,118.5. This compares with 941 staff employed at the end of 2000. The ECB's budget for 2002 envisages increasing the number to slightly over 1,150 in the course of the year. In the light of the experience gathered during the first three and a half years of the existence of the ECB, a number of organisational changes were made. In order to enhance the synergy between business areas, the Executive Board of the ECB decided to change the responsibilities of individual Executive Board members. Moreover, some changes were made in the functions of the ECB business areas. These changes are reflected in the new organisation chart of the ECB.

In 2001 the ECB made a net profit of €1,822 million.

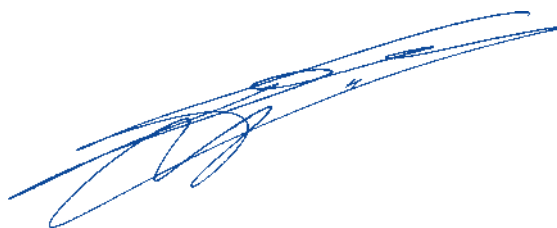
This Annual Report summarises the activities of the European System of Central Banks and the Eurosystem in 2001. It also reports on monetary policy in 2001 and early 2002 and highlights the many issues, sometimes of a technical nature, that arose in establishing and consolidating the Eurosystem as the "central bank" of the euro area.

I should like to conclude this foreword by returning to the historic event that closed the past year and marked the beginning of this year. Indeed, the introduction of the euro banknotes and coins not only represents the final phase of the monetary integration process, but also gives fresh impetus to European economic and financial integration. First, the increased price transparency as a result of the euro cash changeover will encourage more cross-border trade and commerce and, therefore, competition. Second, people will become more aware that the Single Market is not complete: regulatory, administrative and legal impediments to trade in goods, to the provision of cross-border services and to the mobility of labour still exist. The introduction of the euro – one reason for which was to "crown" the establishment of the Single Market – will thus help to highlight these obstacles and stimulate

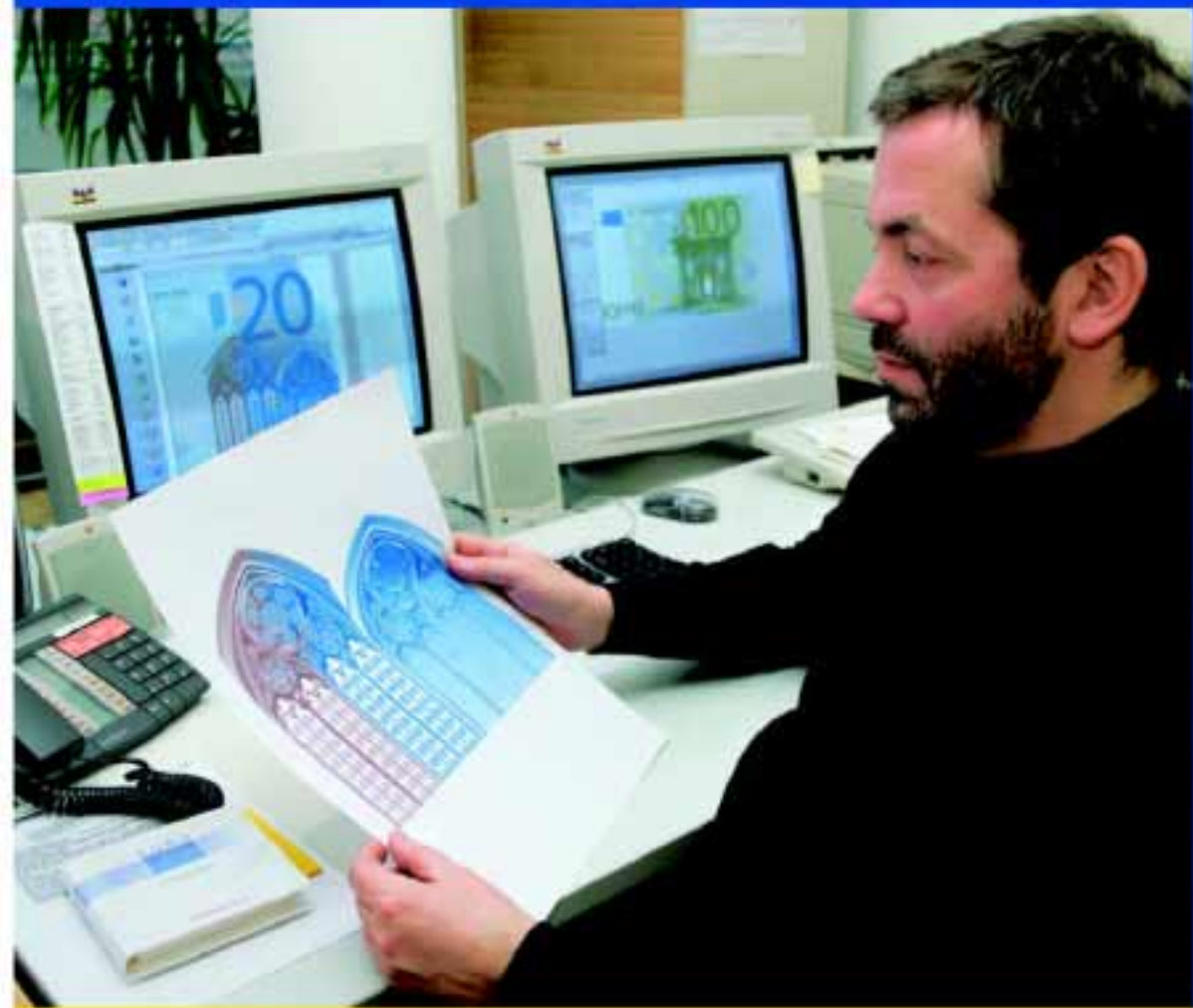
attempts to eliminate them. Indeed, now that the governments of the euro area have voluntarily relinquished their national currency, and the citizens of the euro area will be able to reap the economic benefits of using one single currency in an enlarged economic area, these citizens will ask why it is possible to have a single currency but not to eliminate other barriers between the countries of the euro area. In other words, European integration might become more of a “bottom-up” process, initiated by the citizens of Europe, and less of a “top-down” process driven by politicians and experts. It is rare for central bankers to have a hand in events such as the euro cash changeover, which can fundamentally reshape societies and their economies. I have had the great privilege of presiding over the Eurosystem as such

events unfolded, and I should like to take this opportunity to express my gratitude to, and pride in, all the thousands of colleagues in the ECB and NCBs, who have turned the solemn contract and intention of the European nations at Maastricht into an everyday reality.

Frankfurt am Main, March 2002

A handwritten signature in blue ink, consisting of several overlapping, fluid strokes that form a cursive name.

Willem F. Duisenberg



Austria: **Robert Kalina**, designer of the euro banknotes, at work at the **Oesterreichische Nationalbank** in Vienna



Chapter I

Economic developments and monetary policy

I Overview: monetary policy decisions in 2001

In 2001, monetary policy in the euro area was conducted in a challenging environment. One of the most difficult tasks faced by the Governing Council of the ECB was the prompt and accurate assessment of a gradually changing growth outlook in the euro area, stemming mainly from the global economic slowdown and the impact of oil and food price rises on real disposable income. This task was made harder by the global shock related to the terrorist attacks in the United States on 11 September, which increased uncertainty and aggravated the economic slowdown already taking place in the world economy and the euro area. The conduct of monetary policy was further complicated by the short-term inflationary pressures related to the lagged effects of the increases in import prices in 2000 and the impact of livestock diseases on unprocessed food inflation in early 2001. In this environment, the Governing Council's interest rate decisions were aimed at maintaining price stability over the medium term based on the assessment of the outlook under the two pillars of the monetary policy strategy of the ECB.

At the start of 2001, the key ECB interest rates were those prevailing since 5 October 2000, when the Governing Council had increased them by 25 basis points. On that occasion, consistent with an assessment that pointed to the existence of upward risks to price stability, the rate on the main refinancing operations of the Eurosystem was increased to 4.75%, and the rates on the marginal lending facility and the deposit facility were raised to 5.75% and 3.75% respectively (see Chart 1). Reflecting the increase in oil prices as well as the depreciation of the exchange rate of the euro in 1999 and most of 2000, inflation had remained above levels compatible with price stability for some months. Most forecasts at that time expected economic growth both in the euro area and abroad to remain strong. This increased the risk that the rise in inflation would have a longer-lasting impact on inflation via

second-round effects through wages. In addition, developments in monetary and credit aggregates indicated risks of upward inflationary pressures in a context of still robust growth.

In the course of 2001, the balance of risks to price stability gradually shifted downwards. With regard to the first pillar, M3 growth, which had already started to decline in the course of 2000, decreased further in early 2001. This deceleration was mainly attributable to a pronounced decline in the expansion of the most liquid components of M3, which reflected the impact of the gradual increase in the key ECB interest rates since November 1999. The annual growth rate of loans to the private sector also declined from the beginning of 2001. The moderation in monetary and credit aggregates indicated that the risks to price stability stemming from the monetary side were becoming more balanced.

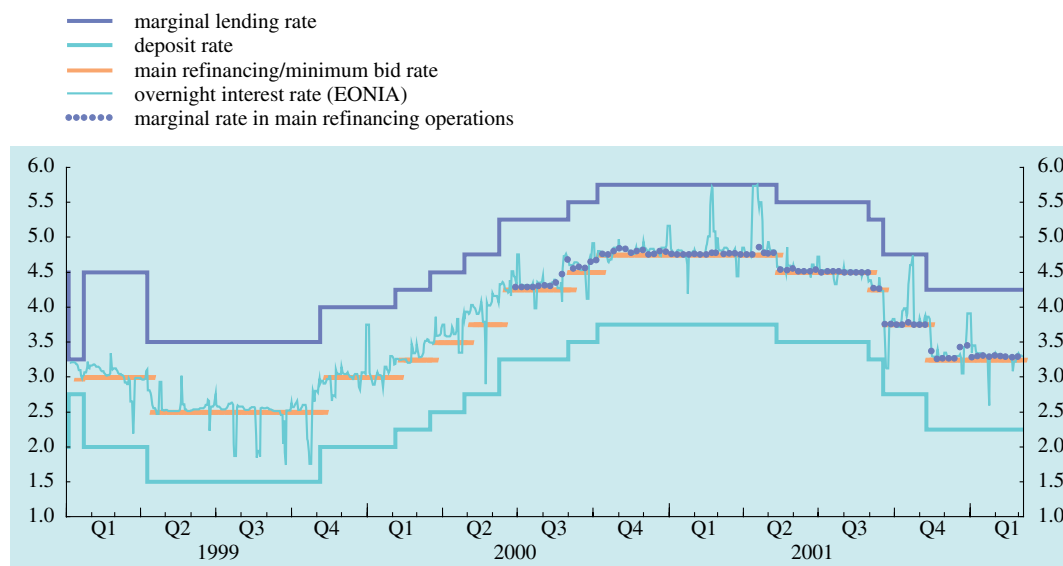
At the end of 2000, there had also been preliminary indications that the official monetary growth figures were being distorted upwards by non-euro area residents' purchases of negotiable paper included in M3. A rough quantification of these distortions, which became available shortly before the first Governing Council meeting of May 2001, suggested that the amounts involved were significant, adding up to 1 percentage point of annual M3 growth, had been increasing over time and were higher than previously expected. Taking these factors into account, the growth of M3 appeared to be less pronounced than previously thought, and first estimates of corrected M3 growth were already at levels below the 4½% reference value from late 2000. (These distortions could only be fully eliminated from the official statistics in November 2001.)

As regards the second pillar, by the end of 2000 the global economy was showing some signs of weakness, notably the first indications of a slowdown in the United States and a worsening of the Japanese economy, both of

Chart I

ECB interest rates and money market rates

(percentages per annum; daily data)



Source: ECB.

Note: The rate for main refinancing operations is the rate applicable to fixed rate tenders for operations settled before 28 June 2000. Thereafter, the rate reflects the minimum bid rate applicable to variable rate tenders.

which were giving rise to increasing uncertainty about the growth prospects for other regions of the world. The first indications that the euro area economy was being affected by these developments were visible in sectors most exposed to the external environment. Industrial production growth started to decline from the beginning of 2001 and all available surveys on economic conditions also pointed to some slowdown in economic activity in the first few months of 2001. At the same time, consumption was expected to remain resilient given the strong employment growth and tax cuts implemented in several countries. Overall, while it became increasingly evident that real GDP growth was slowing down in the euro area, forecasts available in the first half of 2001 from several institutions, as well as the Eurosystem staff projections, pointed to a decline in euro area real GDP growth in 2001 towards levels broadly in line with trend potential growth. The risks to these projections were, however, increasingly on the downside, given the international economic outlook.

An additional factor dampening growth prospects, in particular those for growth in private consumption, was the further increase in HICP inflation in the euro area in early 2001. This counteracted the positive effect on households' disposable income stemming from reductions in direct taxes in a number of euro area countries at the end of 2000 and the beginning of 2001. The annual rate of HICP inflation, which had stood at 2.4% in January 2001, increased to a peak of 3.4% in May 2001. This increase was mainly due to rises in unprocessed food prices related to the outbreak of livestock diseases in a number of euro area countries, as well as the delayed effects of past oil price rises and the depreciation of the exchange rate of the euro, which had worked their way through producer prices. As a result of these indirect effects, HICP inflation excluding unprocessed food and energy prices also maintained a steady upward path in early 2001. These price increases in the euro area were of some concern for the conduct of monetary policy since they also implied upward risks to the medium-term prospects for inflation, especially related to potential second-round effects via wages.

However, the concerns over such second-round effects dissipated gradually over time as the outlook for the euro area economy deteriorated further. In fact, the worsening of the economic growth outlook implied both lower inflationary pressure from domestic demand and lower risks to inflation from wages. Against this background, and taking into account the facts that wage growth continued to be moderate until then and revised M3 figures indicated a significant weakening of monetary growth, the Governing Council decided at its meeting on 10 May 2001 to lower the key ECB interest rates by 25 basis points.

Economic activity in the euro area moderated further in subsequent months. The deceleration mainly reflected a decline in euro area exports and investment growth as a consequence of the global slowdown and, at the same time, a weakening of consumption growth. In addition, short-term price pressures abated. In this environment, from the second quarter of 2001 M3 growth stabilised after the previous period of decline and then started to increase. However, for several reasons, this increase was not interpreted as implying risks to inflation. First, part of the rise in M3 growth reflected the greater need of economic agents for transaction balances in order to adjust to previous increases in energy and food prices. Second, the strong M3 growth took place in a period with a relatively flat yield curve, which increased the attractiveness of holding short-term assets relative to long-term assets. Third, there was evidence that the continued decline in stock prices observed from spring 2000 and the uncertainty prevailing in the financial markets had led many investors to shift their investments into safer and liquid short-term assets such as deposits. Lastly, it had to be borne in mind that the high rate of growth in the official M3 figures was still partly distorted by holdings of marketable instruments by non-euro area residents. All these factors, together with the further decline in the growth of loans to the private sector, suggested that the information under the first pillar was consistent with the

maintenance of price stability over the medium term. Against a background of increasingly apparent weakness of economic activity and lower inflationary pressures, the Governing Council decided to reduce key ECB interest rates on 30 August 2001 by another 25 basis points.

The terrorist attacks in the United States on 11 September constituted a major shock to the world economy and risked disrupting the functioning of financial markets. Immediately after the attacks, the Eurosystem took measures to ensure the normal functioning of the financial markets. The Eurosystem conducted several liquidity-providing fine-tuning open market operations, which stabilised money markets in the euro area within a few days. In addition, through a foreign exchange swap agreement between the ECB and the US Federal Reserve, the Eurosystem also contributed to alleviating euro area banks' shortages of liquidity in US dollars (see Chapter II).

The terrorist attacks increased uncertainty worldwide and therefore had the potential to reinforce the already prevailing downward trend in economic activity. The weaker international environment adversely affected external demand in the euro area and hampered business investment. The heightened uncertainty also had the potential to affect consumption growth. In these circumstances, with the prospects for economic growth already worsening in the euro area prior to the terrorist attacks, downside risks to economic growth increased and inflationary pressures were expected to ease further. Against this background, following an extraordinary meeting held by means of a teleconference on 17 September, the Governing Council reduced the key ECB interest rates by 50 basis points, in concert with an equivalent decision by the Federal Open Market Committee of the US Federal Reserve System. This decision responded to exceptional circumstances and reflected the Governing Council's conviction that a prompt and concerted response to this common global shock was needed. It also reflected

the assessment of lower inflationary pressures in the euro area and was thereby fully in line with the ECB's monetary policy strategy.

In the subsequent period, the evidence available, especially that stemming from the second pillar of the monetary policy strategy, indicated that inflationary pressures were likely to decline further over the medium term. In the aftermath of the attacks of 11 September, it became increasingly clear that the economic slowdown in the euro area would last longer and be more pronounced than previously expected. External demand was expected to decline further and the uncertainty generated by the terrorist attacks was considered likely to delay the recovery in investment in the euro area and negatively affect domestic private consumption. All these elements led to the expectation that economic activity would remain subdued in the second half of 2001, and that real GDP growth would also remain weak in early 2002.

At the same time, the impact of the shocks to the price level from the oil price increases and the depreciation of the exchange rate of the euro in 1999 and 2000, as well as from the food price increases seen in early 2001, was gradually fading. As a consequence, HICP inflation fell continuously in late 2001. The decline in inflationary pressure was likely to contribute to the stabilisation of inflationary expectations, as it showed that the previous increase in inflation was temporary. This development, together with the slowdown in economic activity, was, in turn, expected to support the continuation of wage moderation.

This assessment was not contradicted by the analysis stemming from monetary data. A further strong acceleration in M3 occurred after the terrorist attacks of 11 September, but this was seen to largely reflect shifts in private investors' portfolios from shares and other longer-term financial assets towards more liquid, relatively safe short-term assets included in M3. These shifts were seen as a response by investors to heightened financial market uncertainty and were therefore

judged by the Governing Council to have only a temporary effect on M3 growth and not to indicate future inflationary pressures. This assessment was supported by the fact that annual growth of credit to the private sector continued to decline. In this environment, the Governing Council took the decision to reduce the key ECB interest rates by a further 50 basis points on 8 November. After this decision, the minimum bid rate on the main refinancing operations stood at 3.25% and the rates on the marginal lending facility and the deposit facility at 4.25% and 2.25% respectively.

At its meeting on 8 November, the Governing Council also decided that it would henceforth – as a rule – assess the stance of the ECB's monetary policy and take interest rate decisions only at its first meeting of the month. The Governing Council announced that, at the second meeting of the month, the focus would be on issues related to the other tasks and responsibilities of the ECB and the Eurosystem.

At its meeting on 6 December, the Governing Council conducted its regular review of the reference value for M3 growth and reconfirmed the value of 4½% for the broad aggregate M3. This decision was based on the ECB's definition of price stability and on unchanged assumptions for trend potential output growth of 2-2½% per annum and a trend decline in M3 income velocity of ½-1% per annum in the euro area. It was recalled at that time that the reference value is a medium-term concept. Temporary deviations of M3 from levels in line with its long-term determinants might occur in the context of extraordinary economic developments. The strong developments of M3 growth in late 2001 should be assessed in this light. They occurred in an economic and financial environment characterised by high uncertainty and should therefore not indicate upward risks to price stability over the medium term. It was also recalled that, should the prevailing economic and financial market uncertainty subside, any persisting excess liquidity in the economy would need to be carefully reassessed with regard to whether it signalled risks to price stability.

At the end of 2001 and in early 2002, the information which became available confirmed the earlier expectations of the Governing Council regarding the economic outlook in the euro area and thereby also the forward-looking monetary policy decisions previously taken. Real GDP growth turned out to be close to zero in the third quarter of 2001, and several indicators pointed towards weak economic activity in the fourth quarter of 2001 and in early 2002. At the same time, there were expectations that economic growth would improve overall in the course of 2002. These expectations were reflected in the available forecasts of international institutions and also in the Eurosystem staff projections published in December 2001. Several factors supported this view. First and foremost, there were no major imbalances in the euro area that would have required a lengthy process of adjustment. Given that the uncertainty

overshadowing the world economy was expected to diminish over time, the sound economic fundamentals and the favourable financing conditions in the euro area were considered to provide a solid basis to sustain a recovery. In addition, it was envisaged that the continued decline in consumer price inflation would positively affect real disposable income and thereby support domestic demand. Overall, while the timing and strength of the upturn remained uncertain, the evidence available in early 2002 indicated that a firming of economic activity should take place.

At the beginning of 2002, all information, including all available forecasts and the Eurosystem staff macroeconomic projections, supported the view that annual HICP inflation should stabilise at levels below 2% over the medium term.

2 Monetary and financial developments

2.1 Monetary developments

Strong rise in M3 growth linked to specific factors

The annual growth rate of the broad monetary aggregate M3 averaged 5.5% in 2001, which compares with an average of 4.9% in 2000. However, after a substantial slowdown between spring 2000 and early 2001, M3 growth increased significantly in the course of 2001, from a low of 3.8% in March to 8.0% in December (see Chart 2). The marked increase in M3 growth meant that the three-month moving average of the annual growth rates of M3 was above the reference value of 4½% from the second quarter of the year onwards. The three-month moving average of the annual growth rates of M3 covering the period from October to December 2001 was 7.8%, compared with 4.1% in the same period of 2000.

The strong rise in M3 growth in the course of 2001 can be related to a number of factors.

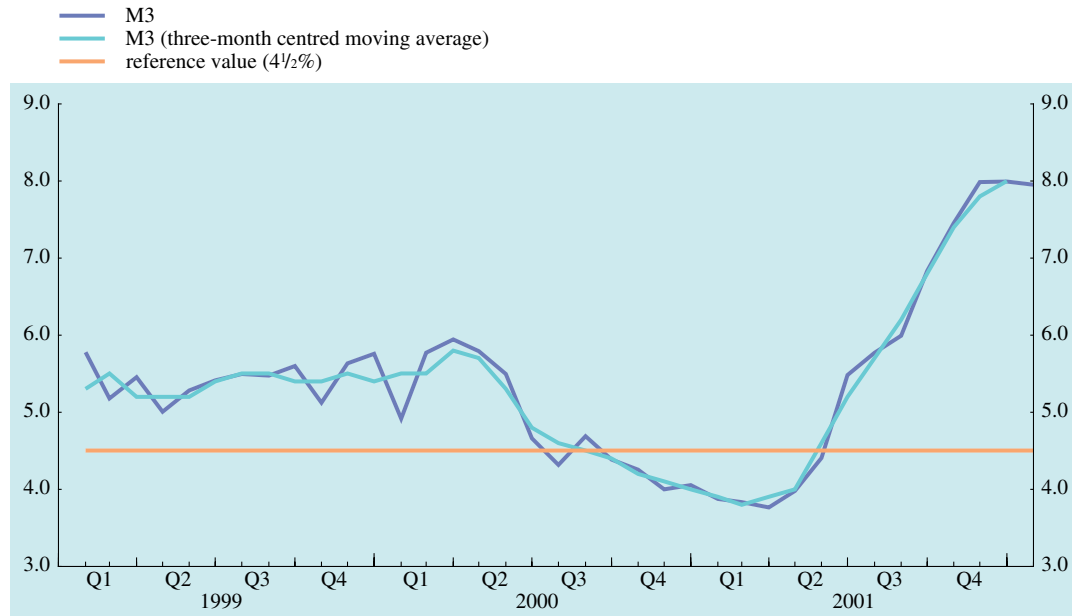
The rise in energy and food prices increased the needs of economic agents for transaction balances, and the acceleration of M3 can be partly seen as an adjustment following the subdued monetary growth around the end of 2000 and the beginning of 2001.

The influence of these two factors can be illustrated with the help of measures of liquidity such as the nominal and real money gaps. In Chart 3 the measure of the nominal money gap is defined as the difference between the actual level of M3 and the level of M3 implied by monetary growth in line with the reference value since December 1998 (taken as the base period). The measure of the real money gap is defined as the difference between the actual level of M3 deflated by the HICP and the level of real M3 implied by medium-term potential output growth and trends in income velocity of M3, again taking December 1998 as the base period. When interpreting the nominal and the real money gaps, it has to be taken into

Chart 2

M3 growth and the reference value

(annual percentage changes; adjusted for seasonal and calendar effects)

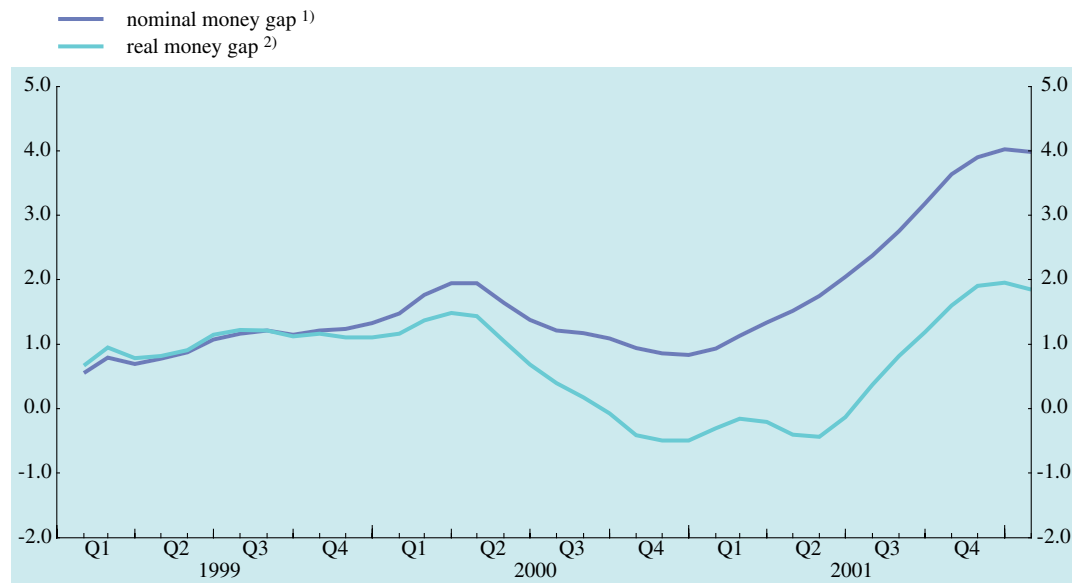


Source: ECB.

Chart 3

Estimates of the nominal and real money gaps

(as a percentage of the stock of M3; three-month moving averages)



Source: ECB.

1) Deviation of the actual level of M3 from the level consistent with monetary growth at the reference value, taking December 1998 as the base period.

2) Nominal money gap minus the deviation of consumer prices from the definition of price stability, taking December 1998 as the base period.

account that the choice of the base period is somewhat arbitrary. As can be seen in Chart 3, between the beginning of 2000 and the second quarter of 2001 there was a widening discrepancy between the two measures. This discrepancy was caused by the rise in the inflation rate during this period, reflecting higher energy and food prices. The resulting higher price level combined with weak M3 growth resulted in low levels of the real money gap in late 2000 and early 2001, indicating that there was a shortfall of M3 when measured in real terms in that period. Part of the rise in M3 growth in 2001 was therefore probably related to a “catch-up” effect and a stronger demand for transaction balances than was necessary to bring nominal money holdings back into line with desired levels.

An additional factor leading to the increased liquidity preference of euro area non-MFI investors in 2001 was, at least until August, the relatively flat yield curve. As a consequence, the relative attractiveness of shorter-term assets that are remunerated close to the money market interest rate as compared with longer-term assets remained high during most of 2001. While the yield curve gradually steepened as from late summer 2001, following reductions in the key ECB interest rates, the associated decline in short-term market interest rates reduced the opportunity costs of holding instruments contained in M3, in particular those with low or no remuneration, such as overnight deposits, compared with other short-term assets not included in M3 (e.g. Treasury bills). Hence this constituted a further factor underpinning the higher M3 growth in late 2001.

Finally, M3 developments in 2001 appear to have been influenced by stock market developments. The persisting weakness in global stock markets between March 2000 and September 2001 seems to have led to a gradual rise in the risk aversion of investors with regard to holding stocks. This, in turn, induced a reallocation of the portfolios of euro area non-MFI investors, from equity to

low-risk assets. Later in the year, the considerable rise in stock market uncertainty in the wake of the 11 September terrorist attacks also led to a strong demand for safe and liquid assets.

Overall, the combination of the aforementioned factors suggested that the strong monetary dynamics in 2001 were not to be overemphasised. As long as these factors were of a temporary nature, they were not to be seen as signalling risks to price stability in the medium term.

Looking at the evolution of the components of M3 in more detail, the annual rate of change in currency in circulation declined significantly in 2001 (see Table 1). This development reflected to a large extent the increasing effect of the prospect of the euro cash changeover (see Box 1 for further details). By contrast, after being very subdued in the first four months of 2001, the annual rate of growth of overnight deposits rose significantly, particularly in the second half of the year. As is the case for M3 as a whole, the rise in the growth of overnight deposits may in part be seen as a “catch-up” effect following the earlier weak growth and an adjustment to the higher price level, particularly as these are very liquid components that are more closely related to transactions. In addition, there are indications that former holdings of currency may to a large extent have been shifted into holdings of overnight deposits. The strong increase in overnight deposits, particularly from September onwards, was also related to high financial market uncertainty, as overnight deposits seem to have been used by investors as an instrument for “parking” money for a limited period of time.

The annual growth rate of marketable instruments included in M3 also increased markedly, to 20.9% in the last quarter of 2001, which compares with 6.5% in the last quarter of the previous year. This rise presumably resulted primarily from portfolio reallocations on account of both developments in global stock markets and

Table I**Components of M3***(annual percentage changes; quarterly averages)*

| | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 | 2002 Jan. |
|--|------------|------------|------------|------------|------------|--------------|
| <i>Adjusted for seasonal and calendar effects</i> | | | | | | |
| M1 | 5.6 | 2.6 | 2.4 | 3.9 | 5.4 | 6.6 |
| <i>of which: currency in circulation</i> | 1.9 | -1.2 | -3.2 | -7.5 | -18.5 | -26.2 |
| <i>of which: overnight deposits</i> | 6.4 | 3.4 | 3.5 | 6.3 | 10.3 | 13.2 |
| M2 - M1 (= other short-term deposits) | 2.2 | 3.4 | 4.4 | 4.9 | 5.8 | 6.8 |
| M2 | 3.8 | 3.1 | 3.4 | 4.5 | 5.6 | 6.7 |
| M3 - M2 (= marketable instruments) | 6.5 | 9.4 | 10.3 | 16.2 | 20.9 | 16.0 |
| M3 ¹⁾ | 4.2 | 3.9 | 4.3 | 6.0 | 7.6 | 7.9 |
| <i>Not adjusted for seasonal and calendar effects</i> | | | | | | |
| Currency in circulation | 1.8 | -1.3 | -3.3 | -7.4 | -18.4 | -26.1 |
| Overnight deposits | 6.4 | 3.3 | 3.9 | 6.2 | 10.1 | 13.1 |
| Deposits with agreed maturity of up to two years | 12.6 | 15.3 | 14.0 | 10.9 | 6.9 | 4.1 |
| Deposits redeemable at notice of up to three months | -4.9 | -4.7 | -2.6 | 0.5 | 5.0 | 8.7 |
| Repurchase agreements | 10.3 | 20.7 | 15.5 | 20.5 | 19.7 | 3.0 |
| Money market fund shares/units | 1.8 | 5.4 | 11.2 | 20.5 | 30.2 | 35.2 |
| Money market paper and debt securities issued with maturity of up to two years | 12.1 | 6.3 | 1.3 | 0.9 | 2.2 | -4.6 |

Source: ECB.

1) Series adjusted for non-euro area residents' holdings of all negotiable instruments.

the relatively flat yield curve in the euro area during most of the year. Marketable instruments are particularly suited to parking money since they are liquid, entail a low risk, and their remuneration is closely related to market interest rates and is thus typically higher than that of short-term bank deposits. Within marketable instruments, the increase in the annual growth rate of money market fund shares/units was particularly strong in the last quarter of 2001 (30.2% compared with 1.8% in the last quarter of 2000).

Finally, the annual growth rate of short-term deposits other than overnight deposits also increased in 2001, continuing a rising trend that started at the beginning of 2000. However, this increase masks contrasting developments in short-term savings deposits (i.e. deposits redeemable at a period of notice of up to three months) and short-term time deposits (i.e. deposits with an agreed maturity of up to two years). While the annual rate of change in short-term savings deposits recovered strongly (from -4.9% in the last quarter of 2000 to 5.0% in the last quarter of 2001), there was a significant moderation in the annual growth rate of short-term time

deposits, which occurred mainly in the second half of the year (from 12.6% in the last quarter of 2000 to 6.9% in the last quarter of 2001). These developments reflected the evolution of the retail interest rates of these components of M3, which altered their relative attractiveness in 2001. In fact, from the end of 2000, the spread between the retail interest rates of short-term time deposits and those of short-term savings deposits fell by 80 basis points, to 60 basis points in December 2001, reflecting the fact that time deposits more closely followed the gradual fall in short-term interest rates during 2001. Accordingly, short-term savings deposits became more attractive in relative terms.

In January 2002 the annual growth rate of M3 declined to 7.9%, from 8.0% in the previous month. The three-month average of the annual growth rates of the broad monetary aggregate M3 increased to 8.0% in the period from November 2001 to January 2002, from 7.8% during the period from October to December 2001. This increase, however, masked a slowdown in the short-term dynamics of M3, as indicated by a decline

in the annualised six-month growth rate to 8.1%, after 8.7% in December and 9.7% in November 2001.

Slowdown in credit to the private sector

Chart 4 provides an overview of the developments in M3 and its counterparts in 2001. The chart shows that the strong rise in M3 growth was accompanied by decreasing (but still relatively robust) credit growth, subdued growth of longer-term financial liabilities and higher net external assets. This contrasts strongly with the situation in 1999 when strong M3 growth was accompanied by high credit growth, pronounced growth of long-term financial liabilities and a strong decline in the MFI net external position.

Examining these developments more closely and starting with credit developments, the annual average growth of total credit granted by MFIs to residents of the euro area declined

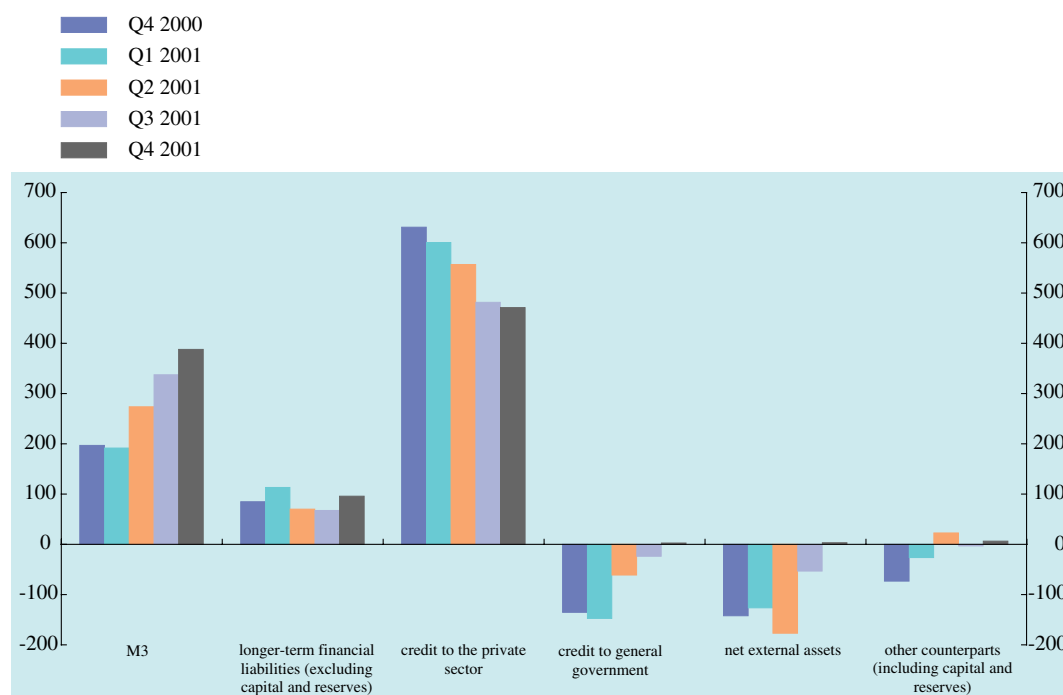
to 5.5% in 2001, from an annual average growth rate of 7.1% in 2000. This reflected contrasting developments in credit to the general government and credit to the private sector.

Credit to the general government recovered strongly in the course of 2001, showing only a small annual decline in the last quarter of the year (0.5%), which contrasts with the high annual decline (7.0%) in the last quarter of 2000 (see Table 2). This recovery may partly reflect the increased financing needs of the general government in the euro area as a whole against the background of worsening government budget balances.

In contrast, the annual rate of growth of credit granted by MFIs to the private sector fell during 2001, to 6.9% in the last quarter, from 10.5% in the last quarter of 2000. This reflected the significant fall in the annual growth rate of loans to the private sector, down to 6.5% in the last quarter of

Chart 4
Movements in M3 and its counterparts

(annual flows; EUR billions; not adjusted for seasonal and calendar effects)



Source: ECB.

Table 2**Counterparts of M3***(annual percentage changes; quarterly averages; not adjusted for seasonal and calendar effects)*

| | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 | 2002 Jan. |
|--|------------|------------|------------|------------|------------|--------------|
| Longer-term financial liabilities (excluding capital and reserves) | 3.6 | 3.8 | 3.1 | 2.2 | 2.8 | 2.9 |
| Deposits with agreed maturity of over two years | 0.9 | -0.1 | -0.1 | -0.4 | -0.2 | -0.0 |
| Deposits redeemable at notice of over three months | 10.9 | 12.2 | 8.2 | 1.2 | -5.7 | -11.5 |
| Debt securities issued with maturity of over two years | 5.2 | 6.3 | 5.2 | 4.3 | 5.8 | 6.2 |
| Credit to euro area residents | 6.0 | 5.6 | 5.4 | 5.6 | 5.2 | 5.3 |
| Credit to general government | -7.0 | -7.3 | -5.3 | -1.9 | -0.5 | 1.7 |
| Securities other than shares | -10.5 | -12.3 | -8.2 | -2.3 | -0.5 | 4.3 |
| Loans | -1.9 | -0.1 | -1.3 | -1.4 | -0.8 | -1.8 |
| Credit to other euro area residents | 10.5 | 9.8 | 8.8 | 7.8 | 6.9 | 6.3 |
| Securities other than shares | 17.8 | 18.7 | 23.4 | 24.3 | 24.0 | 24.2 |
| Shares and other equities | 17.5 | 13.6 | 7.9 | 4.5 | 3.1 | 3.5 |
| Loans | 9.6 | 9.1 | 8.3 | 7.4 | 6.5 | 5.8 |
| <i>Memo item: sectoral breakdown for loans (end of quarter)¹⁾</i> | | | | | | |
| <i>To non-financial corporations</i> | 10.9 | 10.0 | 9.0 | 7.4 | 6.3 | . |
| <i>To households</i> | 7.4 | 6.6 | 6.3 | 6.0 | 5.3 | . |
| <i>Consumer credit²⁾</i> | 7.8 | 4.5 | 5.2 | 3.6 | 3.7 | . |
| <i>Lending for house purchase²⁾</i> | 8.6 | 8.3 | 7.7 | 7.8 | 6.6 | . |
| <i>Other lending</i> | 3.5 | 3.1 | 2.7 | 2.1 | 2.5 | . |

Source: ECB.

1) Growth rates are calculated on the basis of flow data. Sectors correspond to ESA 95 definitions. For further details, see the footnote to Table 2.5 in the "Euro area statistics" section of the Monthly Bulletin and the relevant technical notes. Differences between some sub-totals and their components are due to rounding.

2) The definitions of consumer credit and lending for house purchase are not fully consistent across the euro area.

2001, from 9.6% in the last quarter of the previous year. The quarterly sectoral breakdown of loans granted by euro area MFIs to the non-financial private sector shows that in 2001 the growth of both loans to non-financial corporations and loans to households declined (see Table 2). Within loans to households, there was a particularly marked decline in the growth of consumer credit (to 3.7% in the fourth quarter of 2001, from 7.8% in the last quarter of 2000), possibly reflecting the deterioration in consumer confidence in the euro area as well as the slowdown in economic activity during the year. The annual growth rate of lending for house purchase declined to 6.6% in the fourth quarter of 2001, from 8.6% in the last quarter of 2000. This decrease appears to have been partly related to less buoyant conditions in property markets in some euro area countries. At the same time, the continuous relatively strong demand for loans for house purchase may be related to the

relatively pronounced fall in the corresponding retail interest rates in the course of the year. As regards non-financial corporations, the annual growth rate of loans to these corporations declined to 6.3% in the fourth quarter of 2001, from 10.9% in the last quarter of the previous year. This development was partly explained by the moderation or unwinding of special factors that in 2000 had pushed up the annual growth rate of loans to corporations, such as strong merger and acquisition activity and the financing of UMTS licences. In addition, the weakening of economic growth is likely to have played an important role in the slowdown of the growth of loans to corporations.

The subdued growth of the longer-term financial liabilities of the MFI sector (excluding capital and reserves) provides further evidence of the above-mentioned portfolio reallocations into assets included in M3 in

Box I

Impact of the euro cash changeover on currency in circulation and M3

Developments in currency in circulation during 2001 were strongly influenced by the prospect of the euro cash changeover on 1 January 2002. From December 2000 to December 2001 currency in circulation decreased by €116 billion, which is equivalent to an annual growth rate of -32.2%. As illustrated in the chart below, this decline is far too sharp to be explained by the slowdown in economic activity. A shrinking amount of currency in circulation was observed in 11 out of the 12 euro area countries over this time span.

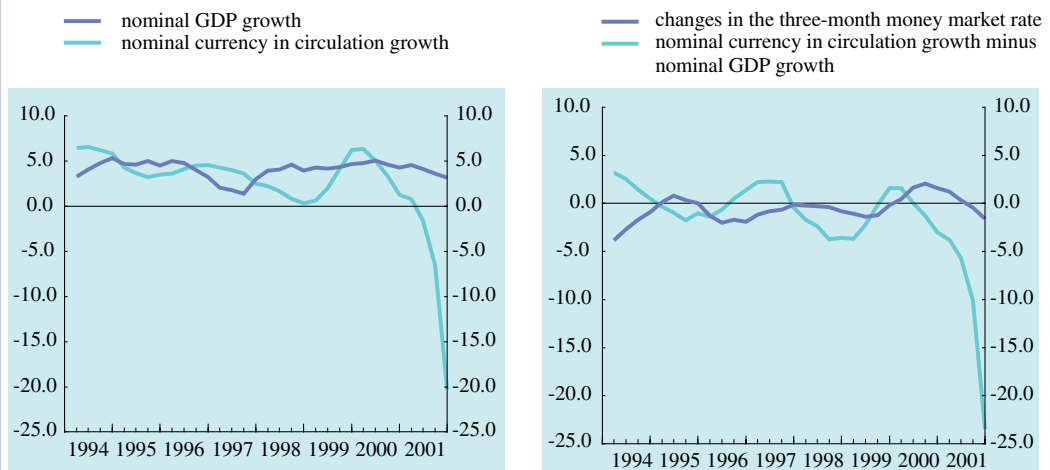
For an analysis of the decline in currency in circulation during 2001, two distinct periods can be identified: the first three-quarters of the year and the last quarter. The main source of the decline in currency in circulation in the first three-quarters of the year was probably the fact that economic agents in the euro area were disposing of their hoarded currency. This led in particular to a reduction in high-denomination banknotes. The flowback of banknotes denominated in the euro legacy currencies from abroad had an additional impact. This effect is likely to have been particularly pronounced in Germany, as the circulation of Deutsche Mark outside the euro area was the highest among all legacy currencies. Indeed, there was a sharper decline in the circulation of Deutsche Mark than in the other legacy currencies taken together. (The annual growth rate of Deutsche Mark in circulation was -46.4% compared with -25% for the other legacy currencies combined in December 2001.)

In the last quarter of 2001, especially in December, the decline in currency in circulation was more widespread and affected high as well as low-denomination banknotes. In addition to a reduction in domestically hoarded banknotes and a flowback of banknotes of the euro legacy currencies from abroad, currency holdings for transaction purposes may also have decreased to some extent in anticipation of the cash changeover. Moreover, there is some evidence that the flowback of banknotes of euro legacy currencies from abroad, especially Deutsche Mark-denominated banknotes, picked up towards the end of 2001.

There are indications that the reduction in currency in circulation during 2001 has led to important substitutions between currency and short-term deposits within M3. In particular, the pace of growth of overnight deposits, which is the closest substitute for currency, increased during 2001. Thus, despite the massive decline in currency in circulation, the impact of the euro cash changeover on monetary aggregates, especially M3, can be assumed to be small.

Currency in circulation, GDP and opportunity costs

(annual differences in percentage points or annual percentage changes)



Source: ECB.

Finally, the euro cash changeover highlights the importance of both the use of currency as a domestic store of value and non-resident holdings of currency in circulation. Data on the distribution of euro banknotes to residents and non-residents, which became available in early 2002, can be used as a preliminary indication of the demand for euro banknotes by non-residents. Data on the different channels for the initial distribution of banknotes to non-residents of the euro area (frontloading via euro area NCBs, sub-frontloading and banknote distribution via euro area credit institutions) suggest that the initial distribution of banknotes and coins to non-residents of the euro area reached €5 billion at the end of December 2001, i.e. 4% of the total amount distributed. There are additional indications that a similar amount was distributed to non-residents of the euro area in January 2002.

2001. The annual growth rate of longer-term financial liabilities (excluding capital and reserves) was 2.8% in the last quarter of 2001, which was exceptionally low by historical standards. This development partly reflected the fact that the yield curve was relatively flat for most of 2001. The narrower spread between the yield on longer-term financial liabilities and the remuneration on short-term instruments is likely to have reduced the demand for longer-term financial liabilities in 2001. In addition, the unsettled conditions in financial markets, particularly after the terrorist attacks in September, seem to have contributed to lower demand for longer-term assets, even though in the last two months of the year, there appeared to be some rebound in the growth of this counterpart. This development could be related to the steepening of the yield curve from August onwards and a normalisation of the situation on financial markets after the surge in uncertainty caused by the terrorist attacks on 11 September.

Finally, there was a significant change in the pattern of the flows in net external assets of the MFI sector in 2001. Following strong declines in the net external position of euro area MFIs in 1999 and 2000 (of €196.6 billion and €142.3 billion respectively), in the 12-month period up to December 2001 net external assets of euro area MFIs rose by €3.0 billion. The significant improvement in the net external position of MFIs mainly reflected strong inflows of funds by non-MFIs into the euro area in the period from June to December 2001. Data from the balance of payments suggest that this development

reflected net inflows of combined direct and portfolio investment and, in particular, equity inflows into the euro area.

2.2 Financial markets

Continued growth in the issuance of debt securities

In 2001 the market for debt securities issued by euro area residents continued to grow at a slightly higher pace than in 2000, with the amount of debt securities outstanding increasing by more than 7% between end-2000 and end-2001, compared with growth of just below 7% in 2000. Underlying the growth in 2001 was an increase of 5.5% in the amount outstanding of short-term debt securities, up from 4% in 2000, and an increase of 7.3% in the amount outstanding of long-term issues, up from 7% in 2000. Long-term debt securities accounted for most of the total amount of debt securities outstanding, representing more than 90% of the total amount outstanding at the end of 2001. This share has been stable since 1997. At the same time, issuance of short-term debt securities accounted for roughly 75% of total gross issuance in 2001, which represents a strong increase compared with the average share of short-term issuance during the 1990s.

Issuance activity in 2001 increased in all sectors except the MFI sector. In terms of both amounts outstanding and issuance, the general government and the MFI sector continued to dominate the securities market

for euro-denominated debt, but the growth in the market was due to the continued strong issuance by the private non-MFI sector (see Chart 5). The decline in the issuance activity of the MFI sector seems to have been largely due to lower credit demand by the private non-financial sector against a background of slowing economic activity, combined with rising inflows of deposits to MFIs (see Section 2.1).

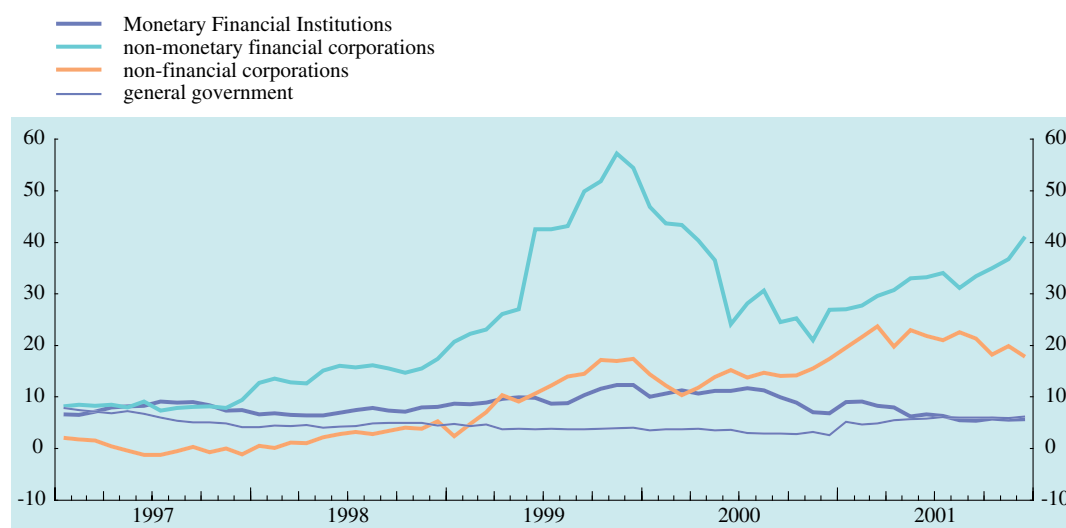
The annual growth of the total amount outstanding of debt securities issued by the general government increased from 2.6% at the end of 2000 to 3.6% at the end of 2001. This reflected the increased borrowing requirements in the public sector in 2001, in particular outside central government, at the state and local levels.

For the private non-MFI sector, the amounts outstanding of euro-denominated debt securities issued by non-financial corporations grew by approximately 18% in 2001, compared with 17% in 2000, while issuance by non-monetary financial corporations grew by about 41% in 2001

compared with 28% in 2000. This sharp increase in the growth of debt securities issuance in the private non-MFI sector took place in an environment of weakening economic growth in the euro area and a general widening of spreads for corporate debt securities during 2001, particularly for lower-rated issuers.

The strong issuance by the private non-MFI sector was due to the concurrence of several factors. Restructuring in the euro area corporate sector continued at a steady pace in 2001, despite easing off slightly compared with 1999 and the first half of 2000. Interest rates were also relatively low by historical standards. Part of the stronger reliance on debt securities finance might also have been due to somewhat lower corporate earnings and deteriorating financing conditions in the equity market, owing to high volatility and declining prices in stock markets in 2001. Furthermore, the virtuous circle, initiated with the introduction of the euro, of more issuers creating a larger market which, in turn, attracts more issuers continued in 2001 as increasing market depth and liquidity

Chart 5
Amounts outstanding of euro-denominated debt securities issued by euro area residents
(annual percentage changes)



Source: ECB.
 Note: From 1 January 2001, euro area data include Greece.

continued to improve conditions for private issuers to tap the euro area capital markets. In 2001 the market broadened its appeal to a steadily growing number of individual issuers, so that a broader range of industrial sectors increasingly came to rely on direct financing through the issuance of debt securities, although the dominant issuers continued to be the telecommunications sector, in particular, and the automobile sector.

As a consequence of these trends, the proportion of outstanding debt securities issued by non-monetary financial and non-financial corporations increased from 9.8% at the end of 2000 to 11.5% at the end of 2001, continuing the trend that had prevailed over previous years (see Table 3). The MFI sector's share in the stock of euro-denominated debt securities declined from 37.4% at end-2000 to 36.5% at end-2001. Mirroring these changes, the proportion of general government euro-denominated securities fell from 52.9% at the end of 2000 to 52.0% at the end of 2001.

Table 3

Sectoral shares of amounts outstanding of euro-denominated debt securities issued by euro area residents

(as percentages; end of period)

| | 1998 | 1999 | 2000 | 2001 |
|------------------------|------|------|------|------|
| MFI's | 35.8 | 37.0 | 37.4 | 36.5 |
| Non-MFI private sector | 7.2 | 8.5 | 9.8 | 11.5 |
| General government | 57.0 | 54.5 | 52.9 | 52.0 |

Source: ECB.

Note: From 1 January 2001, euro area data include Greece.

The share of gross issuance by euro area residents of debt securities denominated in euro as a percentage of issuance in all currencies was stable at just below 93% in 2001. The euro also remained an attractive currency for international issuers, and the amount outstanding of euro-denominated debt securities issued by non-residents of the euro area grew by about 17% in 2001, down from the high growth rate of 26.3% observed in 2000.

Money market interest rates decreased in line with ECB interest rates in 2001

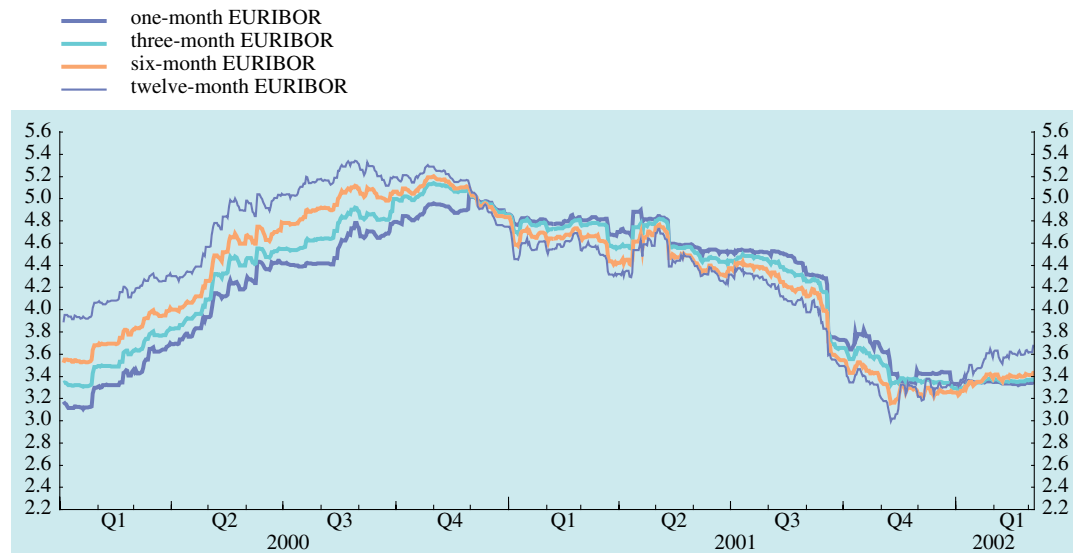
Money market rates decreased significantly in the course of 2001, continuing the trend seen since autumn 2000. This mirrored the decrease in the key ECB interest rates of a total of 150 basis points in 2001 which was implemented in four steps over the course of the year. The decline in money market interest rates during 2001 was not fully anticipated by the markets at the beginning of the year. This can be seen from the difference between the one-month and the 12-month interest rates at the beginning of the year, which was less than 20 basis points, indicating that market participants only expected a moderate decrease in money market rates during 2001 (see Chart 6). More precisely, at the beginning of January 2001, according to the interest rates implied in EURIBOR futures contracts, market participants expected a decline of around ½ percentage point in three-month money market rates during the year. Expectations of a fall in money market rates increased during the year as the incoming information increasingly pointed to a decline in inflationary pressures.

The level of the overnight interest rate, as measured by the EONIA, tended to mirror the pattern of the minimum bid rate in the main refinancing operations of the Eurosystem. The volatility of the EONIA was, in general, low and confined to the end of the reserve maintenance periods when the minimum reserve constraints on the banking system became binding. The main exceptions followed episodes of insufficient bidding by the Eurosystem's counterparties in the main refinancing operations. Such episodes occurred in February, April, October and November. Moreover, following the September terrorist attacks, the EONIA rose temporarily as market participants increased their preference for holding excess liquidity. However, two fine tuning operations conducted by the Eurosystem helped to restore normal market conditions in the overnight market (see Chapter II). In addition,

Chart 6

Short-term interest rates in the euro area

(percentages per annum; daily data)



Source: Reuters.

the EONIA tended to experience a slight increase on the last trading day of each month, in response to financial institutions' desire to adjust their balance sheets at these times. As in previous years, this occurred most markedly at the turn of the year. At the start of 2002 the euro cash changeover generated some uncertainty with regard to the liquidity situation, but the volatility of the EONIA remained contained and normal conditions were restored after two fine-tuning operations conducted by the Eurosystem.

In the first half of 2001 money market interest rates at all maturities declined by somewhat more than the key ECB interest rates, which were reduced by 25 basis points in May, reflecting increasing expectations of further monetary policy easing in the second half of 2001. In the period after the Governing Council decision on 10 May, money market interest rates at maturities of up to one month broadly stabilised, while at longer maturities they continued to decline somewhat.

In August, the downward trend resumed at all maturities, reflecting increased

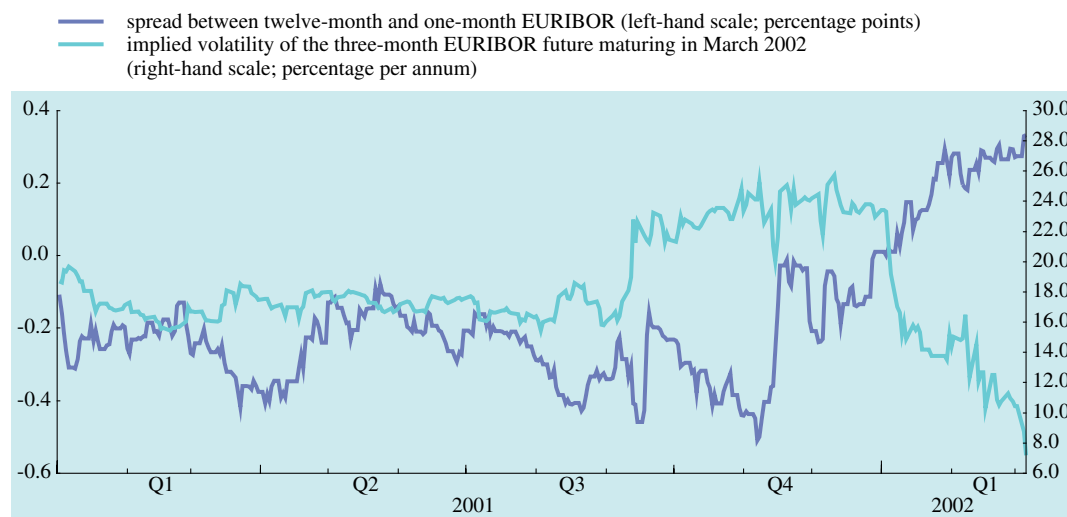
expectations among market participants of reductions in the key ECB interest rates as signs of a decline in medium-term inflationary pressures became more evident. The Governing Council reduced the key ECB interest rates by 25 basis points on 30 August.

Money market rates declined further in the days following the terrorist attacks on 11 September, as market participants expected that these events would have an impact on economic confidence and the outlook for price stability. On 17 September, the Governing Council decided to reduce the key ECB interest rates by 50 basis points, in concert with an equivalent decision by the Federal Open Market Committee of the US Federal Reserve System. The volatility of the three-month EURIBOR implied in options on futures contracts rose considerably following the terrorist attacks, indicating an increase in market participants' perceived uncertainty about the economic outlook (see Chart 7). Following the decision of the Governing Council to lower the key ECB rates by 50 basis points on 8 November, however, implied volatility broadly stabilised, to decline significantly later on.

Chart 7

The slope of the money market yield curve and implied volatility from options on three-month EURIBOR futures

(daily data)



Sources: Reuters and Bloomberg.

In November, the downward movement in interest rates came to a halt and the money market rates at the longer maturities tended to increase, reflecting financial market expectations of a gradual recovery in the euro area. The downward slope of the money market yield curve, measured as the difference between the 12-month and the one-month interest rates, thus levelled off (see Chart 7). At the end of 2001 the one-month and the 12-month money market rates stood at 3.33% and 3.34% respectively, both around 1½ percentage points lower than a year earlier.

In early 2002 money market interest rates rose. The increase was most pronounced at the longer maturities. As a consequence, the money market yield curve became positively sloped.

Long-term bond yields in the euro area changed little overall in 2001

Long-term interest rates in both the euro area and the United States were subject to some fluctuations in 2001. Overall, however, they changed little between the end of

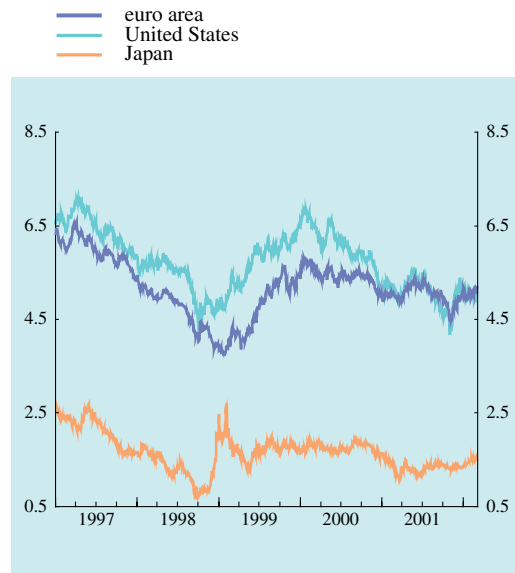
2000 and the end of 2001. In the euro area and the United States, average ten-year government bond yields stood at around 5.1% at the end of 2001 (see Chart 8 (a)). The differential between US and euro area ten-year bond yields – which had narrowed substantially in 2000 – hovered at around zero throughout 2001, although it went into negative territory in the aftermath of the terrorist attacks on 11 September and fell temporarily to a low of ½ percentage point (see Chart 8 (b)). By contrast with developments in long-term rates, short and medium-term bond yields declined markedly in 2001 in both economies, reflecting the global slowdown in economic activity.

In the United States, long-term interest rates waxed and waned throughout 2001, albeit showing little overall change between the end of 2000 and the end of 2001 in an environment where the US economy was moving into recession. The continued slowdown in economic activity against a background of contained inflationary pressures triggered significant monetary easing by the Federal Reserve System, which successively lowered its target for the federal funds rate by a total of 475 basis points in

Chart 8

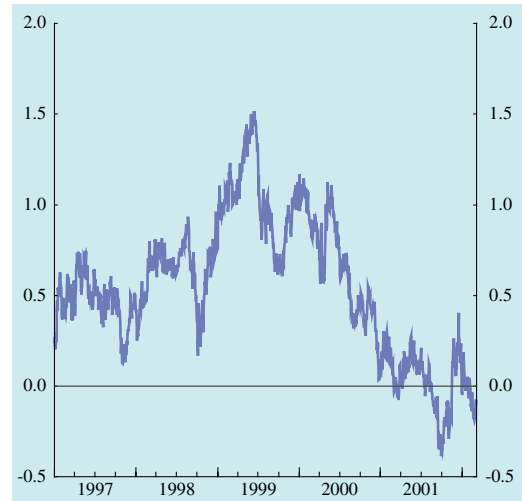
(a) Long-term government bond yields in the euro area, the United States and Japan

(percentages per annum; daily data)



(b) Ten-year interest rate differential between the United States and the euro area

(percentages per annum; daily data)



Source: Reuters.

Note: Long-term government bond yields refer to ten-year bonds or to the closest available bond maturity. From 1 January 2001, euro area data include Greece.

the course of 2001. This led to a marked steepening of the yield curve slope reflecting market participants' overall optimism that the US economy would be able to recover from recession sooner rather than later. This overall optimism notwithstanding, investor sentiment with regard to the severity of the recession and the anticipated start of the recovery changed markedly in the course of the year, giving rise to the above-mentioned swings in long-term interest rates. For example, long-term bond yields increased rather strongly between mid-March and the end of May on the back of market participants' growing optimism about a quick rebound in economic activity and related inflation fears. This episode gave way to a period where investors seemed to become more pessimistic about growth prospects, which was reinforced by the terrorist attacks in early September. Moreover, the sharp declines in long-term interest rates after the attacks were to a large extent also driven by portfolio shifts out of the stock market into the market for long-term government bonds

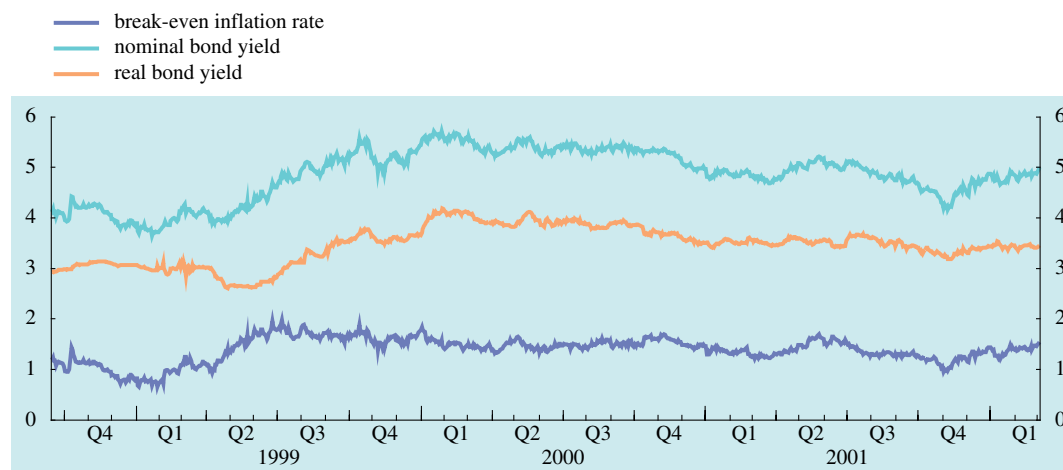
in connection with investors' temporarily increased preference for relatively safe and liquid assets. These yield declines were subsequently reversed following a normalisation of market conditions and some positive news about the US economy, reinstating market participants' belief in a relatively quick recovery.

In Japan, long-term government bond yields remained more or less decoupled from interest rate developments abroad in 2001, which mirrored the distinctive features of the economic situation in this country. Overall, Japanese ten-year government bond yields declined by about 30 basis points to a level of around 1.4% between the end of 2000 and the end of 2001. This decline reflected the rapid and continuous deterioration in economic activity throughout 2001 and the ongoing deflationary tendencies in Japan, which apparently affected market participants' long-term growth and inflation expectations. Against this background, the Bank of Japan introduced a policy of

Chart 9

Real interest rate and break-even inflation rate calculated for the French CPI

(as percentages; daily data)



Sources: French Treasury, ISMA and Reuters.

Note: The real bond yields are derived from the market prices of French bonds which are indexed to the French CPI (excluding tobacco) and mature in 2009. The nominal bond yields are derived from the market prices of French fixed income bonds which also mature in 2009.

quantitative monetary easing in March 2001 aimed at providing ample liquidity and keeping short-term interest rates close to zero percent. Over the second half of 2001, long-term bond yields did not decline further, reflecting market participants' increasing concerns about the high level of issuance, and lowered credit ratings, of Japanese government debt.

In the euro area, bond yield developments in 2001 were quite similar to those in the United States. This indicates that common global factors – in particular the worldwide slowdown in economic growth and the uncertainty related to the terrorist attacks on 11 September – were the main driving forces behind interest rate movements in both economies, a view also confirmed by stock market developments (see Box 2). However, movements in long-term interest rates were much less pronounced and less volatile in the euro area, signalling more stable market expectations for euro area growth and inflation than in the United States. In particular, market participants' long-term inflation expectations as reflected in the break-even inflation rate – calculated as the

difference between French nominal ten-year government bond yields and the real yield on French ten-year index-linked bonds (linked to the French consumer price index) – changed little overall in 2001, remaining at relatively low levels (see Chart 9). This can be interpreted as revealing market participants' confidence that the ECB would maintain price stability in the euro area over the medium term.

Real yields on French ten-year index-linked bonds remained basically unchanged between the end of 2000 and the end of 2001. This suggests that investors' long-term average real growth expectations also changed little over this period. In this respect, the upward sloping yield curve could be seen as an indication that at the end of 2001, market participants were expecting the euro area economy to make a relatively quick recovery. In fact, reflecting declines in money market interest rates, the slope of the euro area yield curve, as measured by the difference between ten-year bond yields and the three-month EURIBOR, steepened from an almost flat level in December 2000 to a level of around 180 basis points by the end of 2001.

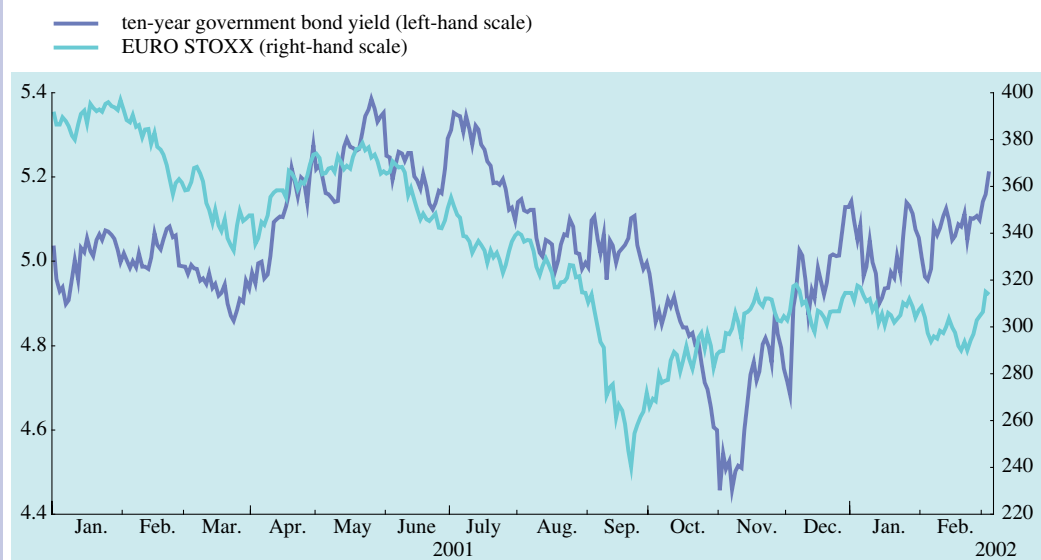
Box 2

Euro area bond yields and stock prices were positively correlated during most of 2001

On average, weekly changes in euro area long-term bond yields and stock prices are negatively correlated. This is because when bond yields fall in an environment of stable inflation expectations, future dividends and earnings should be discounted less heavily. This means that stock prices – which in equilibrium are the discounted present value of all future cash-flows to investors – should rise if the origin of declining bond yields is declining real interest rates, other things being equal. During most of 2001, however, long-term interest rates and stock prices in the euro area moved in the same direction. For example, from around March until the terrorist attacks in the United States in September, euro area ten-year bond yields and the EURO STOXX price index moved broadly in parallel (see the chart below). By contrast, stock prices and bond yields reacted quite differently to the terrorist attacks, with stock prices initially falling and then rebounding some weeks earlier than bond yields. Although this caused a short period of negative weekly correlation between them from around mid-September to early November, the correlation was positive overall in 2001.

Bond yields and stock prices in the euro area

(bond yields in percentages per annum; daily data)



Source: Reuters.

Note: Bond yields are average ten-year government bond yields for the euro area. Stock prices are measured by the Dow Jones EURO STOXX price index.

In general, the degree of co-movement between bond yields and stock prices depends on relative changes in the fundamental economic factors that drive bond yields and stock prices over a specific period of time.

Long-term interest rates depend on expected short-term interest rates over the remaining life of the bond as well as a bond-specific risk premium. This risk premium, in turn, compensates investors for the risk of bond price changes prior to the maturity of the bond. Moreover, the longer the maturity of the bond, the higher this risk premium tends to be. As short-term interest rates reflect the current stance of monetary policy, which in turn depends on perceived inflationary pressures and the expected state of economic activity, long-term interest rates basically mirror market participants' growth and inflation expectations over a long-term horizon.

Stock prices should reflect the discounted present value of future dividends. Hence, expectations of future corporate earnings are one of the key factors that determine stock prices. The discount rates can be broken down into current and expected short-term interest rates and an equity risk premium which compensates

investors for the risks implied by stock price volatility, but also reflects investors' attitudes towards incurring such risks (risk preferences).

Against this background, the correlation between changes in bond yields and stock prices may help in identifying the likely driving factors behind bond and stock market movements. For example, if market participants expect higher short-term interest rates in the future, all else being equal, stock prices decline and long-term bond yields increase, causing a negative correlation between the two. By contrast, when expectations for economic growth improve, stock prices often rise – as corporate earnings and thus dividends tend to rise when economic activity increases – together with bond yields, leading to a positive correlation between stock prices and long-term interest rates. A positive correlation may also arise in situations where investors become more risk-averse and uncertain about future stock returns. This is because such uncertainty can often prompt portfolio shifts from stocks into long-term government bonds, which can be regarded as safer investments (“flight to safety”). The resulting price effects of such portfolio shifts – lower stock prices and lower bond yields – can be interpreted as an increase in the equity risk premium and a decline in the risk premium on bonds.

In this vein, the strong co-movement of bond yields and stock prices over most of 2001 appears to have been mainly due to changes in the general outlook for economic growth in the euro area. For example, in the course of 2001, in line with global developments, the economic outlook in the euro area became less favourable. This led to declines not only in short-term interest rates, but also in long-term interest rates, albeit to a lesser extent. At the same time stock prices declined, which suggests that the ongoing economic slowdown had a stronger impact on corporate earnings expectations than on the expected interest rates used to discount future dividends.

In September, this strong positive correlation between changes in bond yields and stock prices was interrupted by the terrorist attacks in the United States. These events substantially increased stock market participants' uncertainty and risk aversion, prompting investors to shift funds out of the stock market into safer securities. The resulting strong decline in stock prices seemed to have been due mainly to an increase in the equity risk premium. Long-term interest rates, however, changed little immediately after the attacks. This was because, in contrast to previous periods of financial market turbulence, investors in the euro area seemed to prefer short-term bonds or bank deposits, as safe assets, to long-term bonds. At the same time, it seems that the terrorist attacks did not initially prompt a significant reappraisal of long-term growth prospects for the euro area economy. As a result, bond yields and stock prices showed little discernible correlation immediately after the terrorist attacks.

However, when market conditions started to normalise, probably reflecting the swift reaction of policy-makers to the new situation after the terrorist attacks, stock prices gradually rebounded, as market participants apparently demanded a lower risk premium for holding equity, in line with declining uncertainty and risk aversion. The upward movement in stock prices coincided with declines in long-term bond yields. This caused a temporary strong negative correlation between changes in stock prices and ten-year bond yields.

The subsequent upturn in long-term interest rates from early November onwards – triggered by waning investor pessimism about the euro area economic outlook – was generally accompanied by further increases in stock prices, reinstating the positive correlation between long-term interest rates and stock prices that had prevailed over most of the year. This would suggest that, beyond the support received from further declines in the equity risk premium, higher economic growth and thus earnings expectations again exerted a strong influence on stock price developments in the last two months of 2001.

All in all, contrasting with the standard negative correlation, euro area stock prices and long-term bond yields tended to move in the same direction during most of 2001. This seemed to suggest that bond and stock market developments during 2001 were mainly driven by investors' changing views about growth prospects in the euro area, which illustrates the particular difficulty experienced by market participants in the year 2001 in assessing future economic activity and the prospects for corporate profits.

In the period from the end of December 2001 to 5 March 2002, ten-year government bond yields in the euro area increased slightly to a level of about 5.2%. Owing to the fact that long-term bond yields in the United States remained broadly stable over the same period, the differential between ten-year government bond yields in the United States and in the euro area narrowed somewhat and stood at around -10 basis points by 5 March 2002.

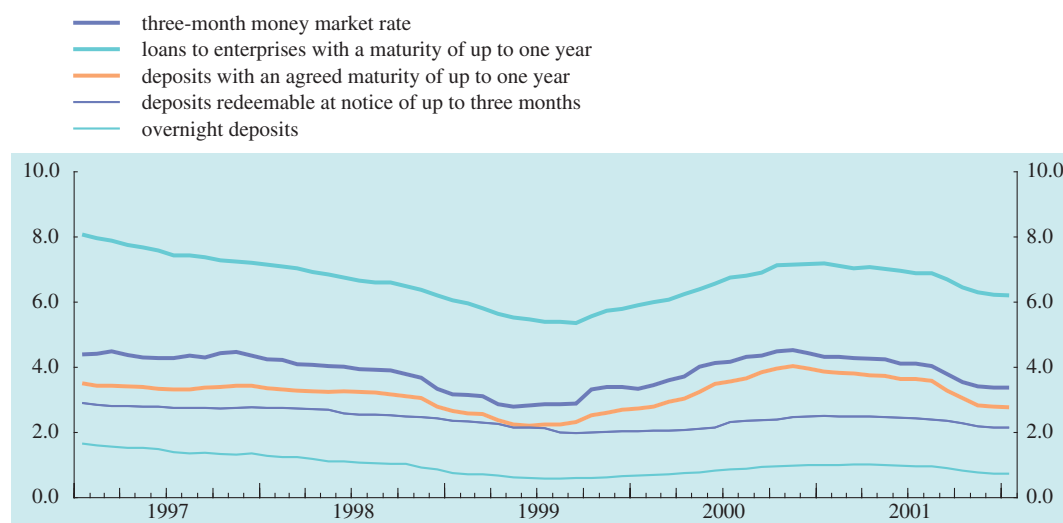
Retail rates declined in 2001, broadly following market rates

Short-term retail bank interest rates declined throughout 2001, following the trend set by money market rates from late 2000 onwards. However, significant differences could be observed between the rates for various forms of deposits. From end-2000 to end-2001 the monthly average of the three-month money market rate declined by about 160 basis points. Over the same period, however, the rates for overnight deposits and short-term savings deposits (deposits redeemable at a period of notice of up to three months) both declined fairly modestly, by about 30 basis

points. This resulted in a decline in the spread of these two rates against the three-month money market rate of approximately 130 basis points by the end of 2001. By contrast, the rate on deposits with an agreed maturity of up to one year declined by about 115 basis points (see Chart 10). This development is not particularly unusual compared with historical experience, which shows that the pass-through from market rates has tended to be slower and less complete for overnight deposits and short-term savings deposits than for short-term time deposits, partly on account of country-specific institutional arrangements. Retail rates for loans to enterprises with maturities of up to one year declined by about 95 basis points. Whereas, by the end of 2001, money market rates had returned to the levels prevailing at the end of 1999, this retail loan rate remained more than 40 basis points above the December 1999 level. This widening of spreads can be partly explained by the usual sluggishness of the pass-through from market rates to retail rates, but it may also be attributed in part to an increase in credit risk associated with the general economic downturn in 2001, as reflected, for instance, in the widening of corporate bond spreads in

Chart 10
Short-term retail bank interest rates and a comparable market rate

(percentages per annum; monthly averages)



Sources: ECB and Reuters.

Note: From 1 January 2001, data include Greece.

2001. In January 2002 most short-term retail bank interest rates continued to decline.

Long-term retail bank interest rates generally declined steadily until November 2001 (see Chart 11). Medium-term market rates, as measured by the monthly average of the five-year government bond rate, which is the market rate to which longer-term retail bank rates are most closely linked, were quite stable in the first half of 2001 and declined in the second half of the year until December, when they started to increase. The continued decline in longer-term retail bank rates was partly due to declines in market rates which had already taken place in 2000, in particular in the last quarter. From the end of 2000 to November 2001, the monthly average of the five-year government bond yield declined by about 85 basis points. By comparison, the rate for long-term time deposits (deposits with maturities of over two years) and the rate for loans to households for house purchase declined by about 95 basis points over the same period, while the average rate for loans to enterprises with a maturity of over one year declined by about 75 basis points. Starting in December, the monthly average of the five-year government bond

yield increased markedly, which was quickly reflected in the rate for long-term deposits and to a lesser extent in the rate for loans to households for house purchase. The average rate for loans to enterprises continued to decline in January 2002. Rather than unusual sluggishness, this development should probably be seen as a decrease in the risk premium of uncollateralised lending in particular, which had built up during 2001.

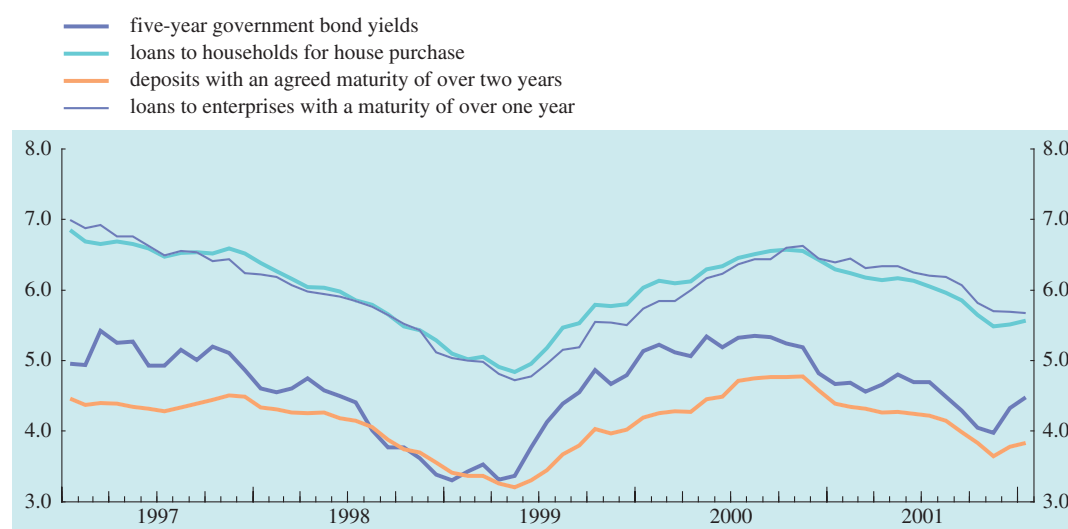
Global stock prices declined in 2001

Stock prices declined globally in 2001, continuing the downward trend that started in September 2000, thus unwinding the substantial increases before April 2000 and bringing the levels of benchmark indices in the United States and the euro area close to those seen in late 1998 (see Chart 12 (a)). A major factor behind the broadly based, continued decline in stock prices in 2001, which had been concentrated in technology-related sectors in 2000, seemed to be the global economic slowdown that materialised in the course of 2001. This was accompanied by downward revisions to expectations of future corporate profitability, company profit

Chart 11

Long-term retail bank interest rates and a comparable market rate

(percentages per annum; monthly averages)



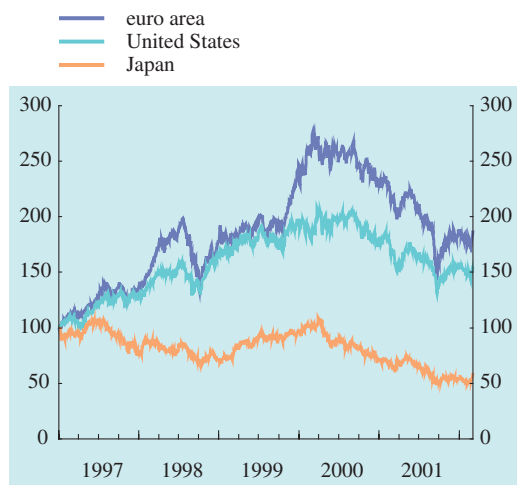
Sources: ECB and Reuters.

Note: From 1 January 2001, data include Greece.

Chart 12

(a) Stock price indices in the euro area, the United States and Japan

(1 January 1997 = 100; daily data)

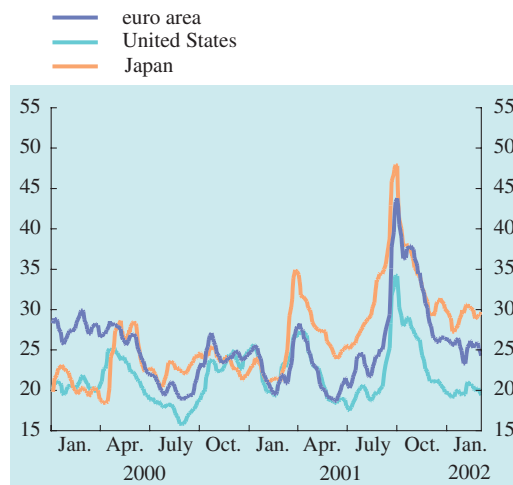


Source: Reuters.

Note: Dow Jones EURO STOXX broad (stock price) index for the euro area, Standard & Poor's 500 for the United States, and Nikkei 225 for Japan. From 1 January 2001, euro area data include Greece.

(b) Implied stock market volatility in the euro area, the United States and Japan

(percentages per annum; ten-day moving average of daily data)



Source: Bloomberg.

Note: The implied volatility series reflect the expected standard deviation of percentage stock price changes over a period of up to three months, as implied in the prices of options on stock price indices. The equity indices to which the implied volatilities refer are the Dow Jones EURO STOXX 50 for the euro area, Standard & Poor's 500 for the United States, and Nikkei 225 for Japan.

warnings, and a correction of the buoyant stock price developments before the second quarter of 2000. Stock market developments in 2001 were also characterised by periods of high uncertainty as measured by implied volatility derived from prices on options contracts (see Chart 12 (b)).

Overall, stock prices in the United States, Japan and the euro area followed similar patterns in 2001. In the first quarter of 2001 benchmark stock price indices generally declined and implied volatility in stock markets increased as the outlook for the world economy became more uncertain. However, between late March and late May stock prices recovered to levels similar to those prevailing at the beginning of the year, mainly owing to increasing confidence in a quick recovery in the world economy. This increased confidence in a quick recovery in economic activity nevertheless faded rather rapidly, and stock prices declined again more or less continuously from early June to late September as corporate earnings continued to fall and expectations for economic

activity and corporate profits were adjusted downwards.

This downward trend in stock prices was reinforced temporarily in September owing to the terrorist attacks in the United States. In addition to an immediate significant negative impact on stock prices, the attacks also induced a surge in implied volatility. This reflected the highly uncertain outlook for profitability, particularly for insurance companies and companies in the travel industry. In the course of October and November, however, implied volatility settled at levels more typical of historical experience and stock prices gradually recovered to levels similar to those seen before the terrorist attacks. This might suggest that stock price developments reflected a perception that the events would not have a lasting impact on earnings in the corporate sector, including on those companies which were most affected by the events of 11 September 2001. The steps taken by the monetary authorities in the United States and Europe and the fiscal

measures adopted by the US Government also helped restore market confidence. Overall, stock prices in the United States, as measured by the Standard & Poor's 500 index, declined by 14% between the end of 2000 and the end of 2001, while, in Japan, the Nikkei 225 index lost 24% over this period. In the euro area, the Dow Jones EURO STOXX broad index declined by 20% between end-2000 and end-2001.

In the United States, despite the monetary easing throughout 2001, stock prices were negatively affected by the further slowdown in the pace of economic activity in the course of the year. In early 2001 there were widely held expectations of a recovery in the course of the second half of the year, but evidence gradually accumulated pointing to a deeper and more prolonged downturn. For the corporate sector, this implied a sharp deterioration in reported earnings and an increase in bankruptcies, while, at the same time, investors were revising their expectations for future corporate earnings downwards. Accordingly, stock prices declined significantly in most sectors, emphasising the broad nature of the slowdown in economic activity in 2001. In this respect, similar to 2000, the technology sector was a significant contributor to the decline in the broad index between end-2000 and end-2001, owing to a further significant downward adjustment of long-term earnings expectations in this sector.

In Japan, the fall in stock prices reflected the continued weakness in the domestic economy, which was exacerbated by the worldwide economic slowdown. This implied that, in addition to companies operating domestically, exporting companies also faced a sharp deterioration in earnings prospects. Moreover, the high level of non-performing loans in the financial sector contributed to a lowering of stock prices in Japan during 2001. Implied volatility, as derived from prices on options contracts on the Nikkei 225 index, was higher than in previous years, reflecting the continuing uncertainty about future economic developments in Japan.

In the euro area, stock prices in 2001 were negatively affected by an increasing realisation over the course of the year that the slowdown in economic activity would be more prolonged than generally believed at the beginning of the year. Coinciding with this, reported earnings for the corporate sector were, overall, worse than expected and, at the same time, companies tended to emphasise the uncertain outlook for future corporate earnings. Owing partly to the simultaneous economic slowdown in all the major economies of the world, stock prices declined across all sectors in the euro area between end-2000 and end-2001. There were only small sectoral differences compared with those observed in recent years, with the exception of the telecommunications and technology sectors, where the declines were particularly marked. The telecommunications sector stock price index declined by 28% between end-2000 and end-2001 after a drop of 43% in 2000. It seemed that investors were increasingly becoming more concerned about the profitability of companies in this sector, given the high level of debt that had been built up in order to finance the acquisition of UMTS licences in 2000 and the investments in the necessary technology. Similar to developments in the United States, stock prices in the technology sector declined by 37% between end-2000 and end-2001, as the market revised its expectations for earnings prospects in this sector downwards.

In the period from end-2001 to 5 March 2002, stock prices in the euro area, as measured by the Dow Jones EURO STOXX index, and in the United States, as measured by the Standard & Poor's 500 index, remained broadly stable. Developments in US stock markets seemed to reflect ongoing concerns about the sustainability of high levels of corporate debt as well as the reliability of reported earnings, particularly for companies in the telecommunications and technology sectors. At the same time, market participants became more optimistic that an economic rebound was on its way. The same mixed signals seemed to influence euro area stock prices.

3 Price developments

Upward movement in HICP inflation reversed in May 2001

In 2001, HICP rates of inflation were largely influenced by developments in their more volatile components – energy and unprocessed food. Although unit labour cost growth increased somewhat in the course of the year as a result of the cyclical decline in labour productivity growth, domestic price pressures remained subdued. The upward movement in the inflation rates, which began

in spring 1999, continued into early 2001. Between December 2000 and May 2001, the year-on-year rate of change in the HICP rose from 2.6% to 3.4%. After peaking in May 2001 the inflation rate started to decline. In the fourth quarter of 2001, the annual growth rate of the HICP was 2.2%, which is 0.5 percentage point lower than the increase observed in the fourth quarter of 2000. On average, the HICP increased by 2.5% in 2001, 0.2 percentage point higher than in 2000 (see Table 4).

Table 4
Price and cost developments in the euro area
(annual percentage changes, unless otherwise indicated)

| | 1999 | 2000 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 |
|--|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|
| | | | | Q1 | Q2 | Q3 | Q4 | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. |
| Harmonised Index of Consumer Prices (HICP) and its components | | | | | | | | | | | | | |
| Overall index | 1.1 | 2.3 | 2.5 | 2.3 | 3.1 | 2.5 | 2.2 | 2.3 | 2.4 | 2.1 | 2.0 | 2.7 | 2.4 |
| <i>of which:</i> | | | | | | | | | | | | | |
| Goods | 0.9 | 2.7 | 2.5 | 2.4 | 3.5 | 2.4 | 1.8 | 2.1 | 2.1 | 1.6 | 1.7 | 2.5 | 2.1 |
| Food | 0.6 | 1.4 | 4.6 | 3.3 | 5.0 | 5.2 | 4.8 | 5.1 | 5.2 | 4.6 | 4.7 | 5.6 | 4.9 |
| Processed food | 0.9 | 1.1 | 2.9 | 1.9 | 2.8 | 3.4 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.8 | 3.3 |
| Unprocessed food | 0.0 | 1.7 | 7.2 | 5.3 | 8.5 | 8.0 | 6.9 | 7.7 | 7.7 | 6.4 | 6.5 | 8.4 | 7.2 |
| Industrial goods | 1.0 | 3.4 | 1.5 | 2.0 | 2.7 | 1.0 | 0.3 | 0.6 | 0.5 | 0.1 | 0.2 | 0.9 | 0.8 |
| Non-energy industrial goods | 0.7 | 0.7 | 1.1 | 0.5 | 1.4 | 1.0 | 1.6 | 1.2 | 1.5 | 1.6 | 1.7 | 1.7 | 1.9 |
| Energy | 2.4 | 13.3 | 2.8 | 7.2 | 7.3 | 1.2 | -4.1 | -1.3 | -2.7 | -5.0 | -4.5 | -1.7 | -2.8 |
| Services | 1.5 | 1.7 | 2.5 | 2.2 | 2.5 | 2.5 | 2.8 | 2.6 | 2.8 | 2.7 | 2.8 | 3.0 | 3.0 |
| Other price and cost indicators | | | | | | | | | | | | | |
| Industrial producer prices ¹⁾ | -0.4 | 5.5 | 2.2 | 4.6 | 3.7 | 1.5 | -1.0 | 0.7 | -0.7 | -1.3 | -1.1 | -0.9 | . |
| Unit labour costs ²⁾ | 1.3 | 1.1 | . | 2.1 | 2.5 | 2.3 | . | - | - | - | - | - | - |
| Labour productivity ²⁾ | 0.9 | 1.4 | . | 0.2 | 0.0 | 0.1 | . | - | - | - | - | - | - |
| Compensation per employee ²⁾ | 2.3 | 2.5 | . | 2.3 | 2.5 | 2.4 | . | - | - | - | - | - | - |
| Total hourly labour costs ³⁾ | 2.2 | 3.4 | . | 3.2 | 2.9 | 3.4 | . | - | - | - | - | - | - |
| Oil prices (EUR per barrel) ⁴⁾ | 17.1 | 31.0 | 27.8 | 28.4 | 31.7 | 29.0 | 22.4 | 28.8 | 23.8 | 21.7 | 21.5 | 22.6 | 23.5 |
| Commodity prices ⁵⁾ | -5.9 | 16.7 | -7.6 | -0.8 | -3.0 | -10.4 | -15.6 | -18.1 | -19.3 | -15.1 | -12.3 | -6.2 | . |

Sources: Eurostat, national data, International Petroleum Exchange, HWWA (Hamburg Institute of International Economics) and ECB calculations.

Note: For periods prior to 2001, HICP data do not include Greece. The other price and cost indicators include Greece for periods prior to 2001.

1) Excluding construction.

2) Whole economy.

3) Whole economy (excluding agriculture, public administration, education, health and other services).

4) Brent Blend (for one-month forward delivery). In ECU up to December 1998.

5) Excluding energy. In euro; in ECU up to December 1998.

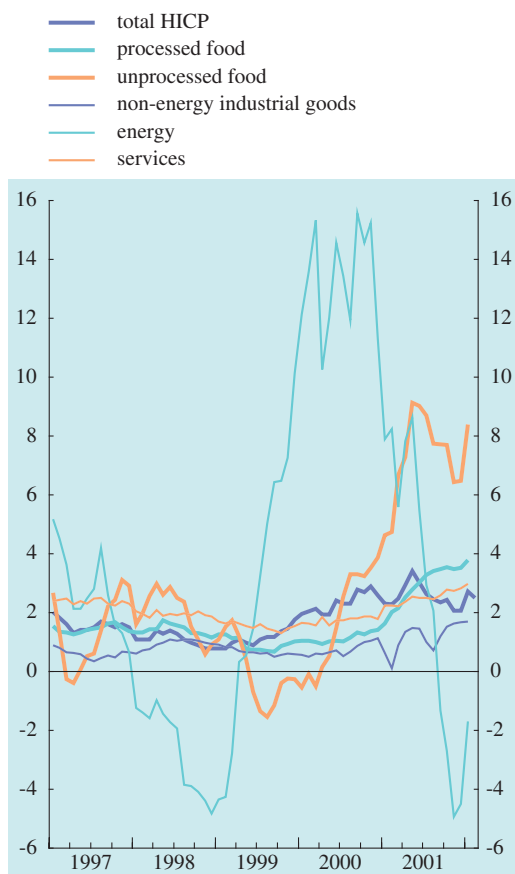
Overall inflation rates strongly influenced by movements in volatile price components

From January to May 2001, when the annual inflation rate peaked, prices of unprocessed food were the main factor contributing to the increase in the HICP. The increase in unprocessed food prices was mainly caused by health concerns related to cases of BSE in a number of euro area countries. In addition, the outbreak of foot-and-mouth disease in some countries and the measures taken in order to prevent a further spread of the disease exerted further upward pressures on prices of unprocessed food. In year-on-year terms, unprocessed food prices increased from 4.6% in January to 9.1% in May 2001 (see Chart 13). As the upward price pressures associated with the above-mentioned health concerns started to unwind during the summer of 2001, the year-on-year rates of change in this component started to decline. The annual rate of change subsequently stood at 6.5% in December 2001. Although the level of unprocessed food prices declined in the second half of 2001, by the end of the year it was still above the levels observed before the outbreak of BSE.

The turnaround in the inflation rate that took place after the peak in May 2001 and the subsequent decline were mainly accounted for by lower energy prices. The downward movement in the annual rate of change in energy prices that had begun at the end of 2000 continued in 2001 with a short interruption in the second quarter of 2001, reflecting the temporary rebound of euro-denominated oil prices. In the last four months of 2001 negative annual growth rates in energy prices were recorded. The year-on-year rate of decline in the energy component was 4.5% in December 2001, compared with an increase of 7.9% in January 2001 and 15.6% at its peak in September 2000. The downward movement in the year-on-year rates of change in energy prices reflected, on the one hand, the base effects associated with the increase in energy prices during 2000 and, on the other, a substantial decline in euro-denominated oil prices in the

Chart 13
Breakdown of HICP inflation in the euro area by component

(annual percentage changes; monthly data)



Source: Eurostat.

Note: For periods prior to 2001, HICP data do not include Greece.

course of 2001. On average, oil prices were quoted at €22.4 per barrel in the fourth quarter of 2001, €12.1 (or 35.1%) lower than the average quotation in the corresponding quarter one year earlier. In contrast to 2000, euro-denominated oil prices in 2001 were almost entirely determined by movements in the US dollar price of oil, and not by movements in the euro-dollar exchange rate.

HICP inflation excluding volatile components increased in 2001

Inflation measured by the HICP excluding unprocessed food and energy prices in 2001 was still influenced by indirect effects caused by the oil price increases and the depreciation

of the euro exchange rate in 1999 and most of 2000. In addition, prices of processed food exerted further pressures on this component as a result of delayed effects of earlier increases in unprocessed food prices. Domestic price pressures, however, remained contained throughout the year. Reflecting these indirect and lagged effects, HICP inflation excluding unprocessed food and energy prices increased further in the course of 2001. This development reflected higher annual rates of change in all of its three main sub-components: processed food, non-energy industrial goods, and services. The year-on-year rate of change in the HICP excluding unprocessed food and energy prices stood at 2.5% in December 2001, 1.0 percentage point higher than in December 2000 and 1.6 percentage points higher than the trough in October 1999.

The annual growth rates in prices of non-energy industrial goods was 1.7% in December 2001, 0.6 percentage point higher than in December 2000. However, the increases in the year-on-year rates of change gradually diminished in the latter half of the year as the above-mentioned indirect effects started to unwind. The annual rate of increase in services prices rose from 1.8% in December 2000 to 2.2% in January 2001, reflecting changes in administrative prices and indirect taxes in a few euro area countries. The year-on-year rate of change in prices of services was also affected by pass-through effects from previous increases in import prices, and hence edged up further throughout the year to stand at 2.8% in December 2001. The pick-up in the year-on-year rates of change in the HICP excluding unprocessed food and energy prices during 2001 also reflected higher prices of processed food as a result of delayed effects from earlier increases in unprocessed food prices. The annual growth rate in prices of processed food stood at 3.5% in December 2001, 2.1 percentage points higher than in December 2000. Also for this component, the increases in the year-on-year rates diminished over the last two quarters of 2001, suggesting an unwinding of these indirect effects.

As regards any possible effects from the euro cash changeover on HICP inflation in the course of 2001, the evidence suggests that these were limited. In this respect, it should be borne in mind that it is very difficult to disentangle any cash changeover effects from other sources of inflationary pressures. Box 3, entitled "The impact of the euro cash changeover on euro area consumer prices", reviews this issue in more detail.

Inflation expectations remained contained despite higher inflation

Various surveys (for example the ECB's Survey of Professional Forecasters and Consensus Economics Forecasts) indicate that there was little evidence of an overreaction of expected inflation to the pick-up in actual inflation during the first half of 2001. This is illustrated in Table 5, which shows actual HICP inflation outcome for the four quarters of 2001 (and the yearly average) together with the evolution of expectations as regards the average inflation outcome for 2001 and 2002 surveyed in each of the four quarters of 2001.

While over the course of 2001 inflation expectations for the year were gradually revised upwards in line with the actual outcome, expectations for 2002 were much more stable and, in particular, they all remained below 2% throughout the year. This stability in expectations indicates that economic agents largely perceived the increase in inflation in 2001 as transitory. This was most probably reinforced by the ECB's determination to ensure that the increase in inflation would remain a temporary phenomenon, which in turn helped to foster an environment where the risks of second-round effects on wages could be contained.

Inflation divergence remained broadly unchanged in 2001

The degree of dispersion of HICP inflation rates among euro area countries remained

Table 5**Consumer price inflation: outcomes for 2001 and expectations for 2001 and 2002***(annual percentage changes)*

| | 2001 | | | | 2001 |
|---|---------------------------|-----|-----|-----|------|
| | Q1 | Q2 | Q3 | Q4 | |
| Overall HICP | 2.3 | 3.1 | 2.5 | 2.2 | 2.5 |
| <i>Expectations for 2001</i> | <i>– date of survey –</i> | | | | |
| Survey of Professional Forecasters | 2.0 | 2.3 | 2.7 | 2.6 | - |
| Consensus Economics Forecasts ¹⁾ | 2.0 | 2.3 | 2.7 | 2.6 | - |
| <i>Expectations for 2002</i> | <i>– date of survey –</i> | | | | |
| Survey of Professional Forecasters | 1.7 | 1.8 | 1.9 | 1.7 | - |
| Consensus Economics Forecasts ¹⁾ | 1.7 | 1.8 | 1.9 | 1.7 | - |

Sources: Eurostat, Consensus Economics Forecasts and the ECB's Survey of Professional Forecasters.

1) The quarterly expectations are the average of the monthly expectations within that quarter.

broadly unchanged in 2001. The spread between the two countries with the highest and the lowest rates remained at 3.3 percentage points, virtually unchanged compared with 2000. The standard deviation remained at around 1 percentage point. Changes in annual average HICP inflation varied across countries, mainly as a result of the different impact of temporary and one-off factors. In particular, the different country-specific impact of the animal diseases and weather conditions on food prices helps to explain the various patterns observed.

Producer prices strongly affected by developments in commodity prices

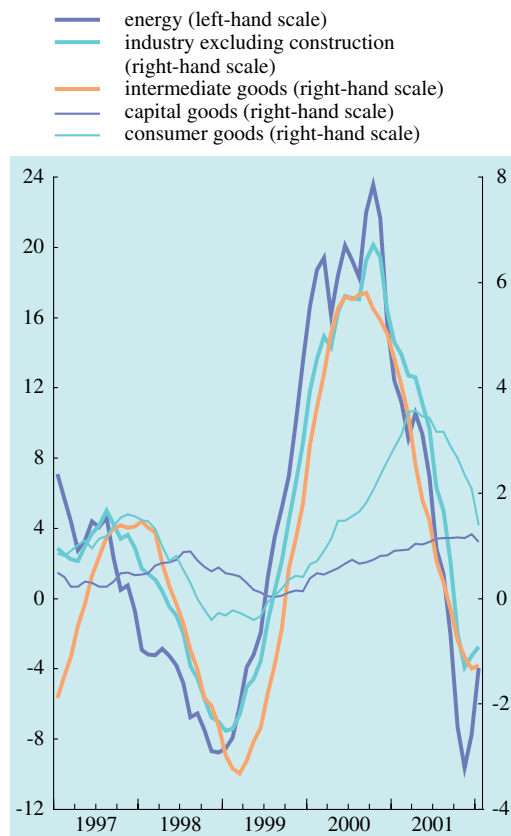
On average, the industrial producer price index (excluding construction) increased by 2.2% in 2001, 3.3 percentage points less than the increase in 2000. This outcome is mostly explained by developments in the energy and intermediate goods components, which in turn reflected lower prices for energy and non-energy commodities. After the producer price increases peaked at 6.7% in October 2000, the annual rates of change declined substantially and in December 2001 a negative growth rate of 1.1% was recorded (see Chart I4).

As regards capital and consumer goods, the average price rises in 2001 increased compared with 2000. This is mainly

accounted for by indirect effects associated with past increases in import prices and, in

Chart I4

Breakdown of industrial producer prices for the euro area

(annual percentage changes; monthly data)

Source: Eurostat.

Note: Data refer to the Euro 12 (including periods prior to 2001).

Box 3

The impact of the euro cash changeover on euro area consumer prices

With the introduction of euro banknotes and coins on 1 January 2002, all prices in the euro area were converted into prices denominated in euro. Fears have been raised, as witnessed in survey results by the European Commission, that the changeover could result in widespread price increases. This box reviews the main arguments and facts related to possible upward and downward effects on consumer prices stemming from the cash changeover.

Economic arguments suggest potential for upward as well as downward pressure on prices

In relation to the euro cash changeover, there are three main factors that could affect prices: a pass-through of costs, so-called menu costs and rounding to new attractive prices. As regards costs, companies have faced one-off costs (such as IT investment and staff training) that might be passed on to customers in order to maintain profit margins. Available information, albeit limited, suggests that costs might have been relatively modest. Moreover, they are mainly of a one-off nature and have occurred over a longer period. In addition, due to the costs of changing prices (also called menu costs), which often lead to relatively infrequent price adjustments, retailers may have organised their regular price adjustments to coincide with the changeover. This would result in an unusual concentration of individual price changes close to the time of the changeover that could influence the normal seasonal pattern. Over the longer term, however, average inflation would not be affected. A further risk of price increases arises from the possibility that companies round up prices to new attractive euro prices in order to improve their profits. The use of attractive (or psychological) prices (ending with the digit 9 for instance) is very common in the retail trade and companies may have reviewed their price structures, after conversion into euro, so that they have as many attractive prices as before the changeover. However, such a readjustment of prices would most likely include both upward and downward rounding and the overall net effect is a priori uncertain.

Several factors should, however, limit general price increases. For instance, competition in most markets in the euro area seems to be strong enough to limit any upward price pressures from the outset. In fact, companies may even reduce prices in order to attract customers or capture market share. The prevailing demand situation also limits opportunities for price increases. Moreover, consumers and consumer organisations have been asked to be vigilant and to monitor the situation closely, and have been helped by the dual display of prices, making it more difficult for retailers to raise prices. Furthermore, all central governments have ensured that the conversion of the prices, charges and fees they administer remains price-neutral or benefits the consumer, and local governments have been requested to follow this example. Historical examples of cash conversions, like decimalisation in the United Kingdom and Ireland in 1971, also suggest that the net effect on prices is very limited.

These arguments suggest that the overall price effects of the changeover are likely to be limited for the euro area as a whole. Moreover, they should be spread out over a longer period, and some retailers and suppliers have pledged not to raise prices during the conversion period. The close monitoring of prices by consumers during this period may have led to price adjustments being brought forward or postponed. While any effect on inflation should be of a temporary nature, over the longer term increased price transparency and competition are likely to contain pressures on prices.

Empirical evidence suggests only a limited effect

In 2001, national statistical institutes, the Eurosystem and consumer organisations initiated monitoring exercises of psychologically attractive prices in several euro area countries.¹ By closely following the price dynamics of selected consumer goods that are usually offered at attractive prices, they have tried to estimate the actual impact of the conversion of prices into euro. It should be stressed that the identification of changeover effects is extremely difficult as any price changes might either be due to the changeover (rounding or a pass-through of changeover costs) or just reflect a change in other cost factors (e.g. wages and import prices, etc.) or profits. Bearing this in mind, results of these monitoring exercises confirm that the impact of

the cash changeover on price developments has so far been rather limited. While there has been some evidence of euro-induced price increases for some specific products in individual countries over recent months, these effects have been negligible in terms of their impact on the overall HICP in the euro area countries and in the euro area as a whole. For January 2002, Eurostat estimated that out of the 0.5% month-on-month increase in the HICP, the contribution stemming from the euro cash changeover was most likely between 0.0 and 0.16 percentage point. Results of business surveys conducted by NCBs and other organisations also generally confirm the view that the cash changeover has not affected prices to any significant extent.²

To conclude, economic arguments suggest that the impact of the euro cash changeover on prices should be limited. Actual developments so far indicate that there have been no substantial general price increases resulting from the euro cash changeover. The introduction of the euro will increase price transparency across the euro area, which should encourage arbitrage and strengthen competition. This should ultimately benefit the consumers by containing future price increases.

1 See, for example, "Appendix: price analysis in the period of changeover from the D-Mark to the euro", Deutsche Bundesbank Monthly Bulletin, November 2001 and "Effects of the euro changeover on consumer prices in Finland", Statistics Finland and the Ministry of Finance, June 2001.

2 See, for example, the press release of the Nationale Bank van België/Banque Nationale de Belgique, "The January 2002 survey on the introduction of the euro", 6 March 2002.

particular, energy. However, the upward movement of the annual growth rates in these components came to a halt during 2001. This development is consistent with the view that the indirect effects driving advances in these components diminished during the second half of 2001.

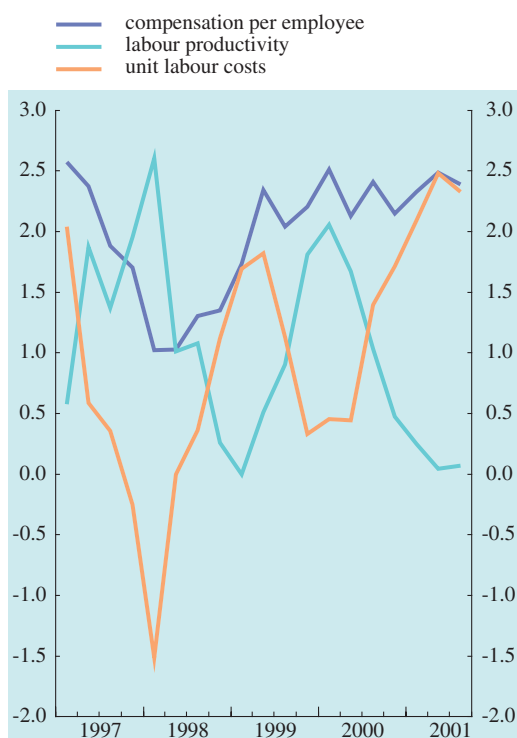
Wage growth remained moderate in 2001

The annual growth rate in compensation per employee increased slightly in the first two quarters of 2001 compared with the previous year (see Chart 15). In the third quarter, the growth rate declined by 0.1 percentage point to 2.4%, which is 0.3 percentage point higher compared with the last quarter of 2000. By contrast, between the second and third quarters of 2001, the annual growth rate of total hourly labour costs in the non-agricultural business sector increased by 0.5 percentage point to 3.4%, and thereby discontinued the trend decline observed since the first quarter of 2000. However, movements in this indicator should be treated with caution since its development has been affected by a series of statistical distortions. Available data at the country level indicate

Chart 15

Unit labour costs, compensation per employee and labour productivity in the euro area

(annual percentage changes; quarterly data)



Sources: National data and ECB calculations.
Note: Data refer to the Euro 12 (including periods prior to 2001); whole economy.

that nominal wages also continued to grow at a moderate pace in the fourth quarter of 2001.

Reflecting the cyclical downturn in the euro area economy, the year-on-year rate of change in labour productivity declined in the first two quarters of 2001, whereas it

increased marginally in the third quarter. This, in combination with the developments in the annual growth rate of compensation per employee, implies that the annual growth rate in unit labour costs increased during the first two quarters of 2001 and declined by 0.2 percentage point to 2.3% in the third quarter.

4 Output, demand and labour market developments

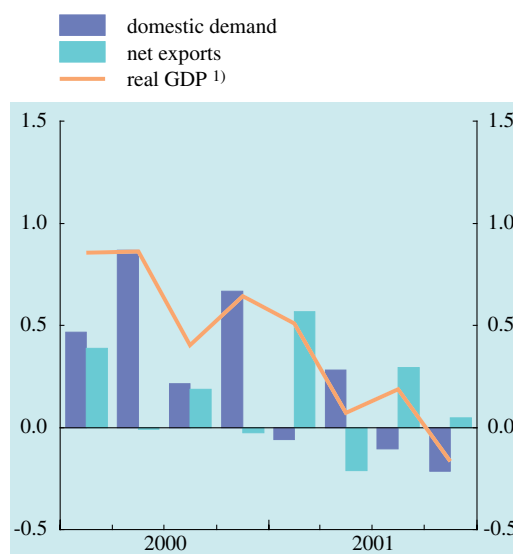
Real GDP growth declined in the course of 2001 due to a combination of adverse factors

Economic growth in the euro area started to decline in the second half of 2000, partly as a result of the negative impact of the protracted increase in oil prices on consumption and investment. In the course of 2001 growth declined further, due to a combination of adverse factors which affected both domestic demand and exports and which was reflected in lower activity in both industry and services. First, higher inflation in the first half of the year as a result of high price increases for energy and food dampened growth in real disposable income. Second, the deterioration in the external environment, which stemmed mainly from the slowdown in the United States at the end of 2000, curtailed growth in euro area exports and increased the uncertainty surrounding investment and, to a lesser extent, consumption decisions. Third, the terrorist attacks in the United States on 11 September 2001 and their aftermath led to a further sharp increase in overall uncertainty, reflected in a further decline in euro area business and consumer confidence. Consequently, while there were some preliminary indications of an upturn in euro area growth during the summer months, this was subsequently delayed. According to Eurostat, real GDP growth in 2001 as a whole was 1.5%, following the high rate of growth of 3.4% in 2000 (see Table 6). However, the euro area economy has maintained solid fundamentals. The decline in inflation and favourable financial conditions are conducive to a gradual strengthening of domestic demand.

Weak growth in domestic demand and exports

The adverse impact from high rates of inflation, the deterioration in the external environment and increased uncertainty was demonstrated by lower contributions to euro area real GDP growth from domestic demand and exports. Domestic demand, which was the main factor underlying strong growth in the years 1998 to 2000, was also the main reason for the decline in real GDP growth in 2001 (see Chart 16). Final domestic demand (i.e. domestic demand excluding changes in inventories) contributed 1.4 percentage points to growth in 2001, while in the

Chart 16
Contributions to quarterly real GDP growth in the euro area
(quarterly percentage point contributions)



Sources: Eurostat and ECB calculations.

Note: All data are seasonally adjusted.

1) Percentage change compared with the previous quarter.

Table 6**Composition of real GDP growth in the euro area***(percentage changes, unless otherwise indicated; seasonally adjusted)*

| | Annual rates ¹⁾ | | | | | | | | Quarterly rates ²⁾ | | | | |
|---|----------------------------|------|------|------------|------------|------------|------------|------------|-------------------------------|------------|------------|------------|------------|
| | 1999 | 2000 | 2001 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 |
| Real gross domestic product | 2.6 | 3.4 | 1.5 | 2.8 | 2.4 | 1.6 | 1.4 | 0.6 | 0.6 | 0.5 | 0.1 | 0.2 | -0.2 |
| <i>of which:</i> | | | | | | | | | | | | | |
| Domestic demand | 3.2 | 2.8 | 0.9 | 2.3 | 1.7 | 1.1 | 0.8 | -0.1 | 0.7 | -0.1 | 0.3 | -0.1 | -0.2 |
| Private consumption | 3.2 | 2.5 | 1.8 | 1.8 | 2.0 | 1.7 | 1.7 | 1.6 | 0.2 | 1.0 | 0.4 | 0.1 | 0.1 |
| Government consumption | 2.1 | 1.9 | 2.0 | 1.7 | 2.0 | 1.9 | 2.1 | 1.8 | 0.8 | 0.6 | 0.4 | 0.3 | 0.5 |
| Gross fixed capital formation | 5.5 | 4.4 | -0.2 | 3.4 | 1.8 | 0.3 | -1.1 | -1.9 | 0.0 | -0.2 | -0.6 | -0.3 | -0.8 |
| Changes in inventories ^{3),4)} | 0.2 | 0.0 | -0.5 | 0.1 | -0.2 | -0.3 | 0.4 | -0.9 | 0.4 | -0.7 | 0.1 | -0.1 | -0.2 |
| Net exports ³⁾ | -0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.5 | 0.6 | 0.7 | 0.0 | 0.6 | -0.2 | 0.3 | 0.0 |
| Exports ⁵⁾ | 5.3 | 12.2 | 3.4 | 12.2 | 8.6 | 5.6 | 1.8 | -1.8 | 2.8 | 0.0 | -0.5 | -0.4 | -0.9 |
| Imports ⁵⁾ | 7.2 | 10.9 | 1.8 | 11.1 | 6.9 | 4.4 | 0.2 | -3.7 | 3.0 | -1.6 | 0.1 | -1.3 | -1.1 |
| Real gross value added | | | | | | | | | | | | | |
| <i>of which:</i> | | | | | | | | | | | | | |
| Industry excl. construction | 0.8 | 4.5 | 1.0 | 4.3 | 3.6 | 1.5 | 0.7 | -1.5 | 0.7 | 1.1 | -1.0 | -0.1 | -1.6 |
| Construction | 2.4 | 1.8 | -0.6 | 0.6 | -0.8 | -0.5 | -0.6 | 0.4 | 0.0 | 0.3 | -0.9 | 0.0 | 0.2 |
| Market-related services ⁶⁾ | 4.0 | 4.5 | 3.1 | 4.2 | 3.7 | 3.4 | 2.9 | 2.3 | 1.0 | 0.8 | 0.6 | 0.4 | 0.4 |

Sources: Eurostat and ECB calculations.

1) Annual rates: percentage change compared with the same period a year earlier.

2) Quarterly rates: percentage change compared with the previous quarter.

3) As a contribution to real GDP growth; in percentage points.

4) Including acquisitions less disposals of valuables.

5) Exports and imports cover goods and services and include internal cross-border trade in the euro area. Intra-euro area trade is not cancelled out in import and export figures used in national accounts. Consequently, these data are not fully comparable with balance of payments data.

6) Includes trade, transport, communication, finance and business services.

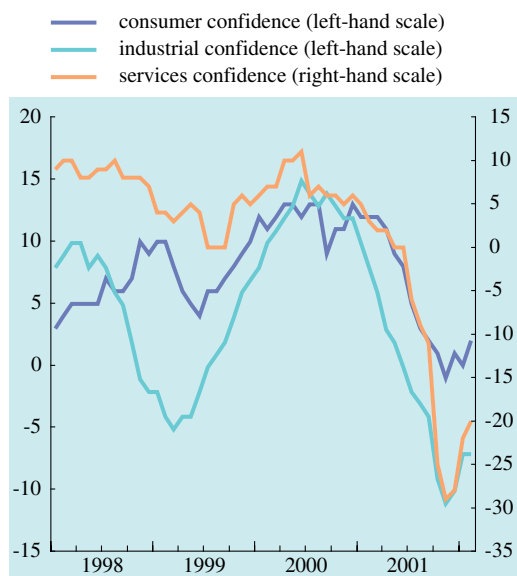
previous three years the contribution had been around 3 percentage points. Moreover, changes in inventories made a negative contribution to growth in 2001 of 0.5 percentage point, following a zero contribution the previous year. By contrast, the contribution to growth from net exports was 0.6 percentage point in 2001 as a whole, which was unchanged compared with that of 2000. This reflects the fact that the decline in export growth was counterbalanced by a decline in import growth.

Growth in private consumption stood at 1.0% quarter-on-quarter in the first quarter of 2001, following more subdued rates of expansion in the second half of 2000. This reflected the impact on households' disposable income from reductions in direct taxes in a number of euro area countries at the end of 2000 and the beginning of 2001.

However, the loss of purchasing power as a result of the high rates of inflation in the first few months of 2001 counteracted this beneficial impact. After the first quarter, growth in private consumption weakened and remained subdued for the remainder of the year, despite the fact that declining inflation rates underpinned growth in real disposable income in the second half of 2001. This may have been due to a delayed and incomplete adjustment of consumer spending to the tax reductions and to the increased uncertainty in the outlook for growth and employment, partly resulting from the deterioration in the external environment. In 2001 as a whole private consumption grew by 1.8%, following 2.5% the previous year. At the end of 2000 consumer confidence was still at a record high but subsequently began to decline considerably when the components related to unemployment expectations and general economic prospects started to deteriorate

Chart 17
Confidence indicators in the euro area

(percentage balances)



Source: European Commission Business and Consumer Surveys.
 Note: All data are seasonally adjusted. Data shown are calculated as deviations from the average over the period since January 1985 for consumer and industrial confidence and since April 1995 for services confidence.

sharply in the face of increasing overall uncertainty (see Chart 17).

Gross fixed capital formation in 2001 decreased by 0.2% compared with the previous year, following robust growth of more than 5% in 1998 and 1999 and more than 4% in 2000. The weak performance of investment is at least partly explained by the downward pressure on profitability from high oil prices and weak external and domestic demand, as reflected in the decline in capacity utilisation. The deterioration in the external environment over the course of 2001 also increased uncertainty as regards the timing of an upturn, and this uncertainty was reinforced by the terrorist attacks in the United States. Businesses therefore delayed their investment decisions, despite favourable financing conditions and continued wage moderation.

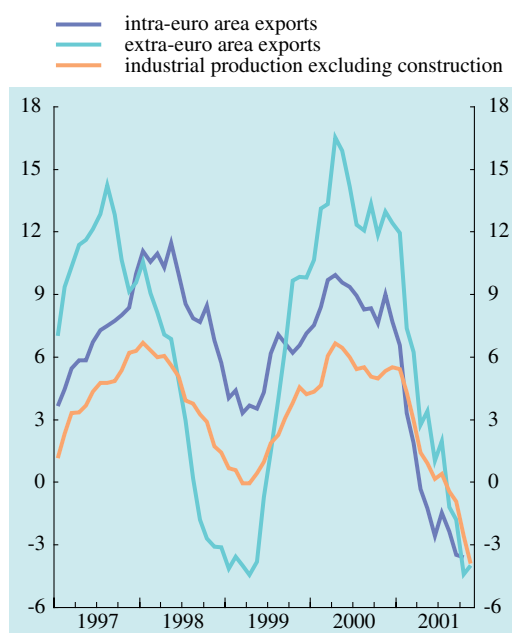
Growth in exports and imports declined at a broadly similar pace

Euro area exports and imports increased by 3.4% and 1.8% respectively in 2001, with growth being around 9 percentage points lower in both cases than in 2000. As a result, the contribution from net exports to real GDP growth in 2001 was unchanged compared with that of the previous year.

National accounts data for exports and imports in the euro area include intra-euro area trade and therefore reflect both external and domestic influences. The volume data on extra-euro area and intra-euro area trade in goods from the external trade statistics suggest that the decline in the year-on-year rate of growth in extra-euro area exports started at around the same time as that in intra-euro area exports but that it was somewhat stronger in the course of 2001. The determinants underlying these declines were different, though, with extra-euro area

Chart 18
Euro area exports of goods and industrial production

(volumes, annual percentage changes)



Sources: Eurostat and ECB calculations.
 Note: Data shown are calculated from three-month centred moving averages.

exports mainly affected by the deceleration in foreign demand in the course of the year and intra-euro area exports reflecting the weakening in euro area internal demand (see Chart 18).

The degree of dispersion of real GDP growth rates among euro area countries declined in 2001

In 2001 the spread of GDP growth between the two euro area countries with the highest and the lowest rates fell to around 5.5 percentage points from 8.5 percentage points in 2000. The standard deviation declined to around 1.7 percentage points from 2.5 percentage points in 2000. Annual average real GDP growth declined sharply in all euro area countries in 2001, without exception, although the extent of the slowdown differed somewhat.

The slowdown in real GDP growth was initially driven by a contraction of industrial activity

The adverse external factors had their strongest and most direct effect on output in the industrial sector. In 2001 as a whole

growth in real value added in industry excluding construction was 1.0%, following a rate of over 4% the previous year (see Table 6). Quarter-on-quarter, growth was positive in the first quarter of 2001 but turned negative in the remainder of the year. This largely shaped the pattern of real GDP growth.

The decline of output in industry (excluding construction and energy) started in the first quarter of 2001 and was initially due to declines in the intermediate goods sector and in the consumer goods sector (see Table 7). In the second quarter a decline in the capital goods sector reinforced the decline in overall production. In 2001 as a whole production growth declined strongly in the capital goods and intermediate goods sector, being around 7 percentage points lower in both cases than in 2000. For export-sensitive sectors, this reflects in particular the negative impact of a deteriorating external environment, reinforced by an unwinding of the high rates of expansion in sectors producing information and communications goods. In the euro area, growth in the manufacture of radio, television and communication equipment, together with the manufacture of office machinery and computers, declined from around 20% in

Table 7
Industrial production in the euro area

(percentage changes)

| | Annual rates ¹⁾ | | | | | | | | Quarterly rates ²⁾ | | | | |
|--|----------------------------|------|------|---------|---------|---------|---------|---------|-------------------------------|---------|---------|---------|---------|
| | 1999 | 2000 | 2001 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 |
| Total industry excl. construction | 2.0 | 5.5 | 0.2 | 5.2 | 4.3 | 0.9 | -0.4 | -3.9 | 1.6 | -0.4 | -1.1 | -0.5 | -1.9 |
| <i>by main industrial groupings:</i> | | | | | | | | | | | | | |
| Total industry excl. construct. and energy | 1.8 | 5.8 | -0.2 | 5.5 | 4.5 | 0.5 | -0.7 | -4.8 | 1.4 | -0.3 | -1.6 | -0.2 | -2.3 |
| Intermediate goods | 1.5 | 5.8 | -1.3 | 5.1 | 2.9 | -0.2 | -1.6 | -6.0 | 1.7 | -1.3 | -1.5 | -0.5 | -2.6 |
| Capital goods | 2.4 | 8.6 | 1.4 | 8.9 | 8.1 | 1.6 | 0.3 | -3.8 | 1.7 | 0.6 | -1.7 | -0.5 | -1.9 |
| Consumer goods | 1.7 | 2.4 | 0.0 | 2.0 | 3.3 | 0.4 | 0.0 | -3.4 | 1.3 | -1.7 | 0.4 | 0.1 | -2.1 |
| Durable consumer goods | 1.3 | 5.8 | -2.6 | 4.0 | 3.1 | -1.8 | -3.8 | -7.5 | 1.3 | -1.1 | -2.0 | -1.5 | -2.2 |
| Non-durable consumer goods | 1.8 | 1.7 | 0.5 | 1.6 | 3.3 | 0.8 | 0.8 | -2.5 | 1.3 | -1.8 | 0.9 | 0.4 | -2.0 |
| Energy | 1.6 | 1.5 | 0.4 | 0.1 | -1.6 | 1.0 | 0.7 | 1.9 | -1.8 | -0.0 | 1.7 | 0.3 | 0.1 |
| Manufacturing | 1.9 | 5.9 | 0.1 | 5.8 | 5.2 | 0.9 | -0.5 | -4.6 | 1.9 | -0.4 | -1.5 | -0.6 | -2.3 |

Sources: Eurostat and ECB calculations.

1) Annual rates: percentage change compared with the same period a year earlier by using data adjusted for variations in the number of working days.

2) Quarterly rates: percentage change compared with the previous quarter by using seasonally and working day adjusted data.

2000 to around -2% in 2001. While growth in the capital goods sector remained positive in 2001 as a whole, growth in the intermediate goods sector was negative. The decline in growth in the consumer goods sector was relatively limited, from 2.4% in 2000 to zero in 2001, but this was mainly due to a limited slowdown in the production of non-durable consumer goods, while for durable consumer goods the slowdown was much more pronounced.

Output in the construction sector as measured by real value added declined by 0.6% in 2001, following growth of around 2% in the previous two years. The decline in 2001 was mostly due to weaker construction activity in the first half of the year, while there were signs of stabilisation in the second half. The weakness in construction was attributable to a number of factors. In particular, housing and office space construction had increased during the past years of strong economic growth, creating oversupply in some countries. Moreover, the increased uncertainty in the course of 2001 regarding the outlook for growth and employment may have prompted businesses and households – despite favourable financing conditions – to delay investment decisions that involve a high degree of financial commitment and irreversibility.

Developments in activity in the services sector lagged somewhat behind those in the industrial sector

Growth of real value added in the services sector declined by around 1 percentage point in 2001, mainly due to a slowdown in the growth of market-related services from 4.5% in 2000 to 3.1% in 2001. All the main shocks affecting economic growth in the euro area in 2001 are likely to have had a direct negative impact on activity in market-related services. For example, high oil prices and the terrorist attacks have had an adverse effect on activities related to transportation. In addition, the decline in output growth in market-related services could be a delayed response to the decline in industrial

activity, considering that a large proportion of business services are related to the production process in the industrial sector.

Employment growth slowed markedly in 2001

On average, euro area employment is estimated to have increased at a slower pace in 2001 (around 1.4%) than in the previous three years, i.e. compared with 2.1% in 2000 and 1.6% in both 1999 and 1998 (see Table 8). The quarter-on-quarter growth rate of employment slowed down markedly throughout the year from 0.5% in the last quarter of 2000 to close to zero in the last quarter of 2001, reflecting, with a lag, the deceleration in economic activity recorded since the second half of 2000.

All sectors contributed to the slowdown in total employment growth in 2001 (see Table 8). The sharp reduction in employment growth in market-related services (trade, transport, finance and business services), which represent over a third of total employment, appears to have been the main driving force behind the slowdown in employment growth. After a relatively strong increase in industrial employment in 2000, employment growth fell in the first three quarters of 2001 in both construction and manufacturing, which are generally very sensitive to developments in economic activity. Employment in the agricultural sector continued to decline in 2001, although at a slightly slower pace than in recent years. With a year-on-year growth rate of over 2.1% on average in the first three quarters of 2001, the services sector continued to foster net job creation, albeit at a slower pace than in 2000.

Unemployment remained broadly unchanged in 2001

The standardised rate of unemployment was 8.3% on average in 2001, compared with 8.8% in 2000. By contrast with the strong and steady decline in unemployment observed

Table 8**Labour market developments in the euro area***(annual percentage changes and percentages)*

| | 1999 | 2000 | 2001 | 1999 Q3 | 1999 Q4 | 2000 Q1 | 2000 Q2 | 2000 Q3 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 |
|---|------|------|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Labour force | 0.7 | 0.9 | . | 0.7 | 0.6 | 0.7 | 0.9 | 0.9 | 1.1 | 1.1 | 0.9 | 0.8 | . |
| Employment | 1.6 | 2.1 | . | 1.6 | 1.6 | 1.8 | 2.1 | 2.1 | 2.2 | 2.1 | 1.6 | 1.2 | . |
| Agriculture ¹⁾ | -2.9 | -1.5 | . | -2.8 | -2.5 | -1.9 | -1.8 | -1.6 | -0.8 | -0.0 | -0.6 | -1.3 | . |
| Industry ²⁾ | 0.3 | 1.0 | . | 0.2 | 0.3 | 0.7 | 1.0 | 1.1 | 1.3 | 1.2 | 0.8 | 0.3 | . |
| – excl. construction | -0.0 | 0.8 | . | -0.2 | -0.1 | 0.1 | 0.8 | 1.0 | 1.3 | 1.4 | 0.8 | 0.2 | . |
| – construction | 1.0 | 1.6 | . | 1.3 | 1.3 | 2.4 | 1.5 | 1.0 | 1.4 | 0.8 | 0.8 | 0.7 | . |
| Services ³⁾ | 2.6 | 2.8 | . | 2.5 | 2.4 | 2.6 | 2.9 | 2.8 | 2.8 | 2.5 | 2.1 | 1.8 | . |
| Rates of unemployment⁴⁾ | | | | | | | | | | | | | |
| Total | 9.8 | 8.8 | 8.3 | 9.7 | 9.4 | 9.2 | 8.9 | 8.7 | 8.5 | 8.4 | 8.3 | 8.3 | 8.4 |
| Under 25 years | 19.2 | 17.4 | 16.5 | 18.9 | 18.3 | 18.0 | 17.5 | 17.2 | 16.7 | 16.5 | 16.5 | 16.5 | 16.7 |
| 25 years and over | 8.5 | 7.7 | 7.2 | 8.4 | 8.2 | 8.0 | 7.7 | 7.5 | 7.4 | 7.3 | 7.2 | 7.2 | 7.3 |

Sources: National data and ECB calculations for labour force data; Eurostat for employment and unemployment data.

1) Also includes fishing, hunting and forestry.

2) Includes manufacturing, construction, mining and quarrying, electricity, gas and water supply.

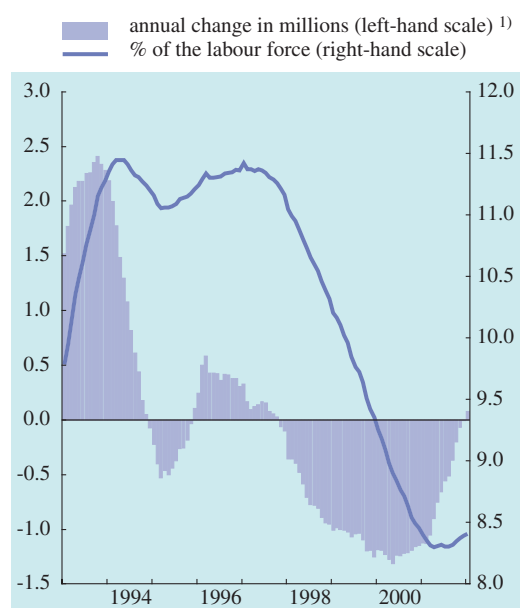
3) Excludes extra-territorial bodies and organisations.

4) Percentage of the labour force according to ILO recommendations.

from mid-1997 until the end of 2000, the euro area rate of unemployment fell slightly between January and April 2001, stabilised between May and August and increased in the latter part of the year, in line with the slowdown in employment growth (see Chart 19). The number of unemployed in the euro area diminished by only 7,000 over the course of the year, compared with more than one million per year in the period from 1998 to 2000. On average in 2001, there were around 11.4 million unemployed in the euro area, a level last seen in 1992. These developments occurred in a context of sustained labour force growth (around 0.9%) in 2001.

Although all age groups and both genders have been adversely affected by less favourable developments in the labour market, those with higher unemployment, namely women and the young, do not appear to have suffered more from the recent economic downturn. Overall, the youth unemployment rate remained broadly unchanged at 16.7% between the last quarter of 2000 and the last quarter of 2001, while the unemployment rate of those aged 25 and over declined by 0.1 percentage point to 7.3% in the same period. Unemployment for both age

groups followed a similar pattern, declining until spring 2001 and rising from late summer to December 2001. While the male unemployment rate increased during 2001, the female

Chart 19**Unemployment in the euro area***(monthly data; seasonally adjusted)*

Source: Eurostat.

Note: Data refer to the Euro 12 (including periods prior to 2001).

1) Annual changes are not seasonally adjusted.

unemployment rate continued to decline, although at a slower pace than in 2000. Therefore, the gap in 2001 between the average male unemployment rate (6.9%) and the female rate (10.2%) continued to narrow slightly. Overall, the convergence of unemployment rates across age groups and genders, particularly noticeable during the period of strong economic growth between 1997 and 2000, continued in the course of 2001 across genders but came to a halt across age groups.

The increase in unemployment occurred in most euro area countries. However, some

countries with high unemployment rates registered a slight decline in their respective rate during the year. As a consequence, the dispersion of unemployment rates across euro area countries continued to narrow in 2001.

The relatively good performance of euro area employment over the last few years taken together may be partly attributable to the reforms in labour and product markets and continued wage moderation. Recent progress with structural reforms in euro area product and labour markets is summarised in Box 4.

Box 4

Progress with structural reforms in euro area product and labour markets

Structural reforms aimed at increasing the flexibility of euro area product and labour markets are likely to have substantial economic benefits and lower the adjustment costs associated with economic shocks. Against this background, the Lisbon European Council in March 2000 emphasised the importance of structural reforms to promote growth and employment in the EU. In particular, the European Council regards product and labour market reforms as a key condition for the EU to become the most competitive and dynamic economy in the world. This message was reconfirmed in the conclusions of the Stockholm, Laeken and Barcelona European Councils in 2001 and 2002. In this context, this box briefly reviews the progress made with structural reforms in euro area product and labour markets during 2001.

Some progress with structural reforms in euro area *product markets* has been made over the last few years, especially with regard to the integration of goods markets and regulatory reforms in network industries. Product market integration proceeded further in 2001, although some of the agreed measures will only be implemented in a few years' time. The average share of non-implemented Internal Market Directives in the euro area countries declined from around 3.3% in November 2000 to around 2.7% in October 2001. Furthermore, the Council of Ministers adopted the European Company Statute in October 2001. This Statute gives enterprises the option to form a company, which can then operate on an EU-wide basis being governed by Community law directly applicable in all Member States. Concerning regulatory reforms in network industries, agreement was reached on a more far-reaching – although still incomplete – liberalisation of the EU's postal sector. Furthermore, a new package of Directives concerning reforms in the telecommunications sector was agreed. To the extent that these reforms succeed in increasing the level of *de facto* competition in euro area product markets, they are likely to result in downward effects on consumer prices and improved longer-term employment and growth prospects.

Despite the encouraging developments described above, the pace of liberalisation has differed considerably across Member States and incumbents' market shares have remained very high. It should also be noted that EU Member States have not agreed on a number of important reform projects in 2001, such as the draft take-over Directive and an EU-wide patent. The European Council in Barcelona decided that all European non-household consumers will be able to freely choose their electricity and gas suppliers as of 2004. However, no commitment was made with regard to opening up the market for households. Furthermore, in most countries, the distribution of electricity and gas is still a legal regional or local monopoly and there is a risk that most of the benefits of liberalisation will be captured by these monopolists and not passed on to consumers.

Moving to euro area *labour markets*, structural reforms have been uneven across countries since, contrary to product markets where the implementation of structural reforms is often linked to the application of EC Directives, labour market reform is more strongly based on national initiatives.

In 2001, some euro area countries implemented reforms to lower the tax burden on labour with a view to increasing work incentives. These efforts continued the trend of reductions in taxes and social security contributions, which had gained importance over the 1990s. A number of member countries have also agreed upon or initiated measures to improve the job search process, either by attempting to increase work incentives through reforms of the unemployment benefit system or by efforts to raise the efficiency of services provided by employment agencies. Finally, some efforts were made to expand the use of part-time contracts. Reducing the strictness of employment protection legislation was not on the agenda in 2001.

The existence of high and persistent levels of unemployment and low labour market participation in several euro area countries indicate that further and more comprehensive labour market reforms are needed. Of particular importance are flexible wages and increased wage differentiation, reforms of tax and benefit systems encouraging job search instead of non-participation, improved education, training and life-long learning avoiding the depreciation and obsolescence of human capital and less restrictive employment protection regulations. That said, employment growth and the reduction in unemployment during the strong economic expansion of 1997-2000 were more considerable than earlier in the 1990s, which indicates that the labour market reforms conducted in euro area countries over recent years have been progressing in the right direction.

In sum, existing hurdles to flexibility and competition in euro area product and labour markets are gradually being removed, but considerable further efforts are needed if the ambition to transform the EU into the most competitive and dynamic economy in the world is to be realised. As emphasised by the European Council in Barcelona in 2002, policies for the promotion of employment and the integration of European markets therefore need to be given specific emphasis.

5 Fiscal developments

Deterioration of budget balances in 2001

The average budget balance in the euro area deteriorated in 2001 for the first time since 1993. The latest available data from Eurostat show a deficit of 1.3% of GDP, compared with a deficit of 0.8% in 2000 (both figures exclude proceeds from the sale of UMTS licences) (see Table 9). Including UMTS proceeds, the 2000 surplus of 0.2% turned into a deficit of 1.3% of GDP in 2001. Factors that account for the budgetary deterioration are the working of automatic stabilisers in the context of the slowdown in economic activity and the implementation of major tax cuts in some euro area countries without sufficient offsetting expenditure restraint. As a consequence, most countries failed to meet the budget balances targeted in the stability programmes that were submitted at the end of 2000 and at the beginning of 2001. On

average, these targets were missed by 0.7% of GDP.

Although the average euro area deficit deteriorated, a few countries managed to improve their fiscal balances in 2001 (Greece, Spain, Italy and Austria), partially due, in some cases, to the lagged effects of high economic growth in 2000 on tax revenues and one-off measures. While seven countries reported balanced budgets or surpluses in 2001 and one country had a deficit below 0.5% of GDP, the remaining four countries (Germany, France, Italy and Portugal) continued to report relatively high deficits. In Germany and Portugal, deficits were even reported around 1 percentage point above the target set in the previous round of stability programmes. In 2001 both the Portuguese deficit of 2.2% of GDP and, especially, the German deficit of 2.7% of GDP were not far from the 3% reference value laid down in the

Table 9**Fiscal positions in the euro area***(as a percentage of GDP)***General government surplus (+) or deficit (-)**

| | 1998 | 1999 | 2000 | 2001 |
|------------------|-------------|-------------|-------------|-------------|
| Euro area | -2.2 | -1.3 | -0.8 | -1.3 |
| Belgium | -0.9 | -0.6 | 0.1 | 0.0 |
| Germany | -2.2 | -1.6 | -1.3 | -2.7 |
| Greece | -2.4 | -1.7 | -0.8 | -0.3 |
| Spain | -2.6 | -1.1 | -0.4 | 0.0 |
| France | -2.7 | -1.6 | -1.3 | -1.5 |
| Ireland | 2.3 | 2.3 | 4.5 | 1.7 |
| Italy | -2.8 | -1.8 | -1.7 | -1.4 |
| Luxembourg | 3.2 | 3.8 | 5.8 | 5.0 |
| The Netherlands | -0.8 | 0.4 | 1.5 | 0.2 |
| Austria | -2.4 | -2.2 | -1.9 | 0.1 |
| Portugal | -2.3 | -2.2 | -1.9 | -2.2 |
| Finland | 1.3 | 1.9 | 7.0 | 4.9 |

General government gross debt

| | 1998 | 1999 | 2000 | 2001 |
|------------------|-------------|-------------|-------------|-------------|
| Euro area | 73.7 | 72.6 | 70.1 | 69.1 |
| Belgium | 119.3 | 115.0 | 109.3 | 107.5 |
| Germany | 60.9 | 61.3 | 60.3 | 59.8 |
| Greece | 105.0 | 103.8 | 102.8 | 99.7 |
| Spain | 64.6 | 63.1 | 60.4 | 57.2 |
| France | 59.5 | 58.5 | 57.4 | 57.2 |
| Ireland | 55.1 | 49.6 | 39.0 | 36.6 |
| Italy | 116.4 | 114.5 | 110.6 | 109.4 |
| Luxembourg | 6.3 | 6.0 | 5.6 | 5.5 |
| The Netherlands | 66.8 | 63.1 | 56.0 | 53.2 |
| Austria | 63.9 | 64.9 | 63.6 | 61.7 |
| Portugal | 54.8 | 54.2 | 53.4 | 55.6 |
| Finland | 48.8 | 46.8 | 44.0 | 43.6 |

Sources: Eurostat and the ECB for euro area aggregates.

Note: Data are based on the ESA 95. Budget balances exclude proceeds from the sale of UMTS licences.

Maastricht Treaty. Only four countries (Spain, Luxembourg, Austria and Finland) managed to achieve the targets of the previous stability programmes and two of them (Luxembourg and Austria) overachieved their budget target by a wider margin.

The government expenditure ratio declined slightly in the euro area in 2001 as a result of continuing lower interest expenditures. The primary expenditure ratio increased slightly, after having declined by about $\frac{3}{4}$ percentage point in 2000. About half of the countries succeeded in bringing down the share of

government expenditure in GDP further. Government investment stabilised in the euro area in 2001 at 2.5% of GDP. As in previous years, healthcare expenditure targets were overrun in many countries in 2001. With a few exceptions, revenue ratios declined in all euro area countries in 2001, due mainly to major cuts in taxes and social security contributions in many Member States (Belgium, Germany, France, Ireland, Italy, Luxembourg, the Netherlands and Finland).

The euro area government debt ratio decreased by 1.0 percentage point to 69.1%

in 2001. The decline was smaller than initially targeted due to deteriorating fiscal balances and lower than expected economic growth. However, the debt ratio did not increase in any of the euro area countries, with the exception of Portugal. The reduction was particularly strong in Spain and Greece, with declines of more than 3 percentage points. Debt-deficit adjustments, which leave the deficit ratio unaffected but have an impact on government debt levels, amounted to 0.3% of GDP in 2001. A further explanation of the limited decline in the debt ratio is that in some countries significant proceeds from privatisation have been used to undertake other financial transactions, such as equity injections into public enterprises.

According to European Commission data, after the relaxation of fiscal policies in 2000, the euro area fiscal stance was loosened in 2001, as shown by a further decline in the cyclically adjusted primary surplus. This loosening was most evident in countries where major tax cuts were implemented without sufficient offsetting expenditure restraint. However, beyond this discretionary fiscal relaxation, the budgetary outcomes in 2001 were also affected by the functioning of automatic stabilisers. The budgetary deterioration compared with the initial stability programme targets mainly reflects the budgetary impact of the economic slowdown compared with the relatively optimistic macroeconomic projections – in retrospect – on which the initial budgetary plans for 2001 were based, as most countries did not restrict the free operation of automatic stabilisers.

Assessment of stability programmes

A comparison of the 2002 targets in the stability programmes submitted at the end of 2001 with the targets included in the previously submitted programmes, about one year before, reveals that most countries have adapted their nominal budgetary target to the deteriorating economic environment. This reflects the worse than expected budgetary

outcomes in 2001, as well as the operation of automatic stabilisers in 2002. Overall, the fiscal stance planned for the euro area in 2002 in the updated stability programmes is slightly restrictive.

Countries that still face fiscal imbalances need to make progress towards achieving positions “close to balance or in surplus”. At present, the room for manoeuvre which some of these countries have in allowing automatic stabilisers to continue to operate, is very limited because nominal deficits in these countries have come closer to the 3% of GDP reference value. Deficits could even exceed that level if planned consolidation measures are less effective than projected, if expenditure overruns recur, or if the economic recovery were to be weaker or delayed as compared with the relatively optimistic assumptions for economic growth in some stability programmes.

The latest stability programmes reconfirm the commitment to achieving balanced budgetary positions by 2003 for Italy and by 2004 for Germany, France and Portugal. Maintaining this commitment prevents the medium-term objective of budgetary positions close to balance or in surplus from becoming a moving target. In this way, the credibility of the Stability and Growth Pact is preserved. However, the measures required to achieve such an objective are not always well specified. In addition, progress towards the deficit targets is sometimes pursued via one-off measures, such as the sale of real estate, which does not constitute durable fiscal consolidation (notably in Italy, where one-off measures will have to be replaced by permanent measures currently under discussion).

In view of the fiscal developments in 2001 and the projected outcomes for 2002, the Commission recommended an early warning to Germany and Portugal in January 2002. The ECOFIN Council considered that the subsequent reconfirmation and even strengthening of the fiscal commitments by these two countries was a sufficient response to the concerns underlying the Commission recommendation, and forcefully supported the

attainment of sound budgetary positions by 2003/04 in its opinions on the updated stability programmes of the countries with remaining imbalances.

Countries that have already achieved sound budgetary positions should let automatic stabilisers operate symmetrically over the cycle, thus contributing to macroeconomic stability. Discretionary cyclical fiscal policy, on the other hand, is not warranted because in the past it has not produced the beneficial effects expected. Long lags have often resulted in a delayed pro-cyclical impact of measures aimed at stabilising economic fluctuations. Moreover, governments have been more prone to stimulate economies in cyclical downturns than to moderate their expansion in prosperous times. In particular, they have shown more diligence in adopting expenditure increasing measures that were intended to be only temporary, than in scrapping them when economic conditions no longer justified them. This asymmetric behaviour, if protracted, generates an upward

drift in public spending and deficit ratios that can put the sustainability of public finances at risk.

Progress on structural reform of public finances

Structural reform of public finances should be high on the agenda, following the conclusions of the Lisbon European Council held in 2000 on increasing Europe's growth potential. By fostering economic growth, well-designed fiscal reform measures not only improve welfare but also contribute to the sustainability of public finances in the longer run (see Box 5). Overall, however, progress in improving the role of public finances in supporting potential growth has been limited.

The tax cuts implemented so far or planned are welcome from a structural perspective, as they can enhance medium to long-term economic growth. They should, however, be preceded, or at least accompanied, by

Box 5

Fiscal policy and long-term economic growth

One of the major challenges for the euro area is to increase long-term growth prospects. Over the past four decades, growth has been slowing down in most euro area countries and averaged only 2% over the 1990s, 1 percentage point below that of the United States. One key factor in this relatively poor performance has been the lack of a dynamic environment conducive to investment and employment creation. Comprehensive fiscal reforms will be needed to achieve a higher potential growth rate.

The contribution of public finances to long-term growth

The basic determinants of growth are savings, human and physical capital investment, technological change and employment growth. The main ways in which fiscal policies influence these growth determinants are via the stability and sustainability of public finances, and expenditure and tax policies. The role of fiscal policies in promoting potential growth in the euro area has been mixed.

Stability and sustainability of public finances

Stable and sustainable public finances require low deficits and public debt. Such fiscal accounts enhance expectations of macroeconomic stability, a predictable fiscal policy framework and favourable long-term financing conditions. This, in turn, creates an environment favourable to investors, innovators and entrepreneurs.

Expenditure policies

Public expenditure can also affect growth through its level and design. Expenditure programmes in general need to be weighed against the efficiency costs of such activities (for example, compared with the private

sector), the resulting disincentives to work, invest and save, and the distortions created by the taxes needed to finance them. Generous social benefits, for example, may provide strong disincentives to work. Government sectors are relatively large, also from an international perspective, and most euro area countries' public spending exceeds 40% of GDP.

Tax policies

Tax policies are an important determinant of long-term growth. In particular, high personal, corporate and capital income taxes reduce the incentive to work, to invest in education and physical capital and to save. As regards the efficiency of financing the public sector via tax policies, the situation is not yet satisfactory; likewise from an international perspective. Marginal income taxes and average tax burdens are still relatively high, and public revenue exceeds 40% of GDP in most euro area countries. Some progress has been made in restructuring tax systems and reducing marginal income tax burdens. But the scope for reductions in taxes is limited as it should be accompanied by sufficient expenditure restraint.

Fiscal policies in Europe's growth strategy

At its meeting in Stockholm in March 2001, the European Council agreed on a strategy paper to improve the quality and sustainability of public finances in order to enhance its contribution to growth and employment. The strategy focuses on three key channels. First, governments should support a stable macroeconomic environment via fiscal consolidation and debt reduction and should also promote further employment and pension reforms. Second, they should make tax and benefit systems more employment-friendly by means of tax cuts and benefit reform. Third, they should redirect public expenditures towards physical and human capital accumulation. The report suggests a comprehensive strategy. This would help economic growth and employment by supporting consolidation, sustainability and growth in a virtuous circle.

Well-designed institutions that create incentives to pursue stability and sustainability-oriented policies are essential in achieving such objectives. Similarly, reform of the rules and institutions governing tax and expenditure policies in euro area countries should be considered. Hence, the rules governing the extent of government involvement in the financing and provision of goods, services and social insurance and in the way such activities are conducted need to be scrutinised and reformed, when appropriate.

offsetting expenditure restraint so as not to put the attainment or maintenance of sound budgetary positions at risk. In view of the growth-promoting role of public investments, such expenditure restraint should focus on current expenditure. In 2002, by contrast, the primary expenditure ratio is forecast to

increase by ½ percentage point. Moreover, as expenditure overruns have often thwarted consolidation efforts in the past, effective mechanisms to monitor and contain spending, at all levels of government, would improve the credibility of budget targets.

6 The global macroeconomic environment, exchange rates and the balance of payments

The global economy deteriorated significantly in 2001

The global economy experienced a marked slowdown throughout 2001, following a record year of economic growth in 2000. World GDP growth is estimated to have

reached 2% in 2001, down from 4.6% in 2000, the highest growth rate since the mid-1980s. The growth rate of world trade declined even more sharply, down from 12.5% to an estimated 0.7%. Important determinants of this slowdown were a decline in demand for information and communication technology

(ICT) products, notably in the United States, a general deterioration in global economic conditions and the lagged impact of the sharp rise in oil prices in 2000 (see Box 6). The terrorist attacks of 11 September 2001 added to the uncertainty and had a short-lived but immediate impact on economic activity.

In 2001, the ten-year expansion of the economy in the United States came to a halt and the National Bureau of Economic Research (NBER) declared in November 2001 that a recession had started in March 2001. In its statement, the NBER stressed the importance of the terrorist attacks of 11 September in intensifying an already pronounced slowdown of real GDP growth. In 2001, real GDP grew by 1.2%, compared with 4.1% in 2000. At the same time, labour productivity in the non-farm business sector increased by, on average, 1.9%, after growing by 3.3% in 2000. The main factor driving real GDP growth down in the course of 2001 was the sharp contraction of private business fixed investment and inventories. In 2001, real private business fixed investment declined by 1.9%, compared with an increase of 7.6% in 2000. Overall, real GDP growth in 2001 was supported by private consumption growth, which contributed 2.1 percentage points, after 3.3 percentage points in 2000, and by public expenditure, while the sharp contraction of real exports, relative to real imports, brought the contribution of net foreign trade to real GDP growth to -0.1 percentage point compared with -0.8 percentage point in 2000.

Against this background, the imbalances in the US economy were not fully corrected. In particular, private sector credit expansion continued while the “net cash flow/debt service” ratio of the corporate sector declined. The expansion of household debt also continued and the household debt service burden remained at historically high levels. Furthermore, the slowdown in the US economy contributed only marginally to the improvement in the current account-to-GDP ratio, from 4.5% in 2000 to 4.1% in 2001.

Concerning inflation, the decline in oil prices contributed to a significant reduction of inflationary pressures in the United States. Annual inflation, as measured by the consumer and producer price indices, dropped to 2.8% and 2% respectively in 2001, down from 3.3% and 3.6% respectively in 2000. However, despite the weakening of domestic demand, the growth rate of the Consumer Price Index (CPI) excluding food and energy, which delivers a more reliable picture of underlying price pressures, increased marginally to 2.6%, from 2.4% in 2000.

Against the background of a deeper and more protracted slowdown of economic activity than previously expected, the Federal Open Market Committee (FOMC) of the Federal Reserve System reduced its target for the federal funds rate in a number of successive steps throughout the year to a 40-year low of 1.75% on 11 December 2001; the target had been 6.5% at the end of 2000. According to official FOMC statements, monetary policy actions in 2001 were driven by persistent prospects for a deterioration in economic conditions, following the contemporaneous adjustment in the corporate sector and the slowdown in private consumption growth. In February 2001, the new Administration submitted a proposal to Congress for a permanent reduction in revenue, notably deriving from personal income taxes. In May 2001, Congress approved a resolution that fixed the total tax reduction for the period from 2002 to 2011 at USD 1,350 billion, compared with that of USD 1,600 billion originally proposed by the Administration.

In Japan, after some tentative signs of economic recovery in 2000, economic conditions deteriorated noticeably, partly as a result of the slowdown in global demand in 2001, in a context of structural problems in the private business sector and a continuous slump in asset prices. In line with rapidly falling export growth and amid rising inventory levels, industrial production declined throughout most of the

Box 6

Determinants of international business cycle synchronisation

An important feature of the slowdown in the world economy in 2001 was the high degree of synchronisation across the major economies. More synchronised business cycles are important factors in economic forecasts and policy-making. In particular, if the observed increase in the synchronisation of business cycles is the result of stronger transmission mechanisms between business cycles in different countries associated with the globalisation process, even relatively closed and large economies may be exposed more strongly to spillovers from abroad. In that case, when assessing the outlook for a particular country, the weight of the international environment should be increased substantially. The main factors determining international business cycle synchronisation are trade links, cross-border financial asset diversification, confidence spillovers and common shocks.

In general, economic interdependence between different countries is, to a significant extent, a reflection of trade links. In the long run, such links through international trade have tended to intensify, as trade volumes have expanded faster than world output. For example, the openness of the euro area has increased significantly over the past decade. Exports of goods to countries outside the euro area increased from 9% of GDP in 1991 to more than 15% of GDP in 2000. In a similar way, goods imports rose from 11% of GDP to 16% of GDP in this period. International production chains, which have been a determinant of the observed rise in openness, have become a significant factor in spillovers via the trade channel. For example, the recent slowdown in the United States is strongly related to a sharp decline in US demand for information and communication technology (ICT) products, which are highly tradable and involve international production chains. As a consequence, the slowdown that started in the United States in the second half of 2000 quickly spread to the small open economies in South-East Asia, the main producers of ICT products and major importers of goods from third countries such as the euro area. In the recent cyclical downswing, the euro area was exposed not only to direct trade effects related to a slowdown of the US economy, but also to indirect third-country effects related to the impact of the slowdown in the United States on South-East Asia and other areas of the world, which were only felt, however, in the course of 2001.

This underscores the fact that the trade channel does not capture the full size of transmission. Against this background, attention has more recently turned to financial linkages. Private, corporate and institutional investors have greatly increased the cross-border diversification of their assets and liabilities over the past few years. Specifically, firms have considerably expanded their operations internationally – in particular, through mergers and acquisitions – and sales revenue from operations of foreign affiliates generally account for an increasing share of total sales revenue. Between 1980 and 2000, foreign assets and liabilities of residents in all major advanced economies more than doubled as a percentage of GDP. With the exception of Japan, international asset diversification accelerated remarkably in the 1990s. At the end of the millennium, the sum total of foreign assets and liabilities in many major economies was close to 100% of GDP. As a result of cross-border investment, both firms and households may have been more directly exposed to developments abroad. Moreover, and possibly as a reflection of increased cross-border investment, financial markets have become more closely correlated in recent years, in particular with regard to equity returns. Equity prices affect the financing conditions of enterprises and the wealth of private households. Consequently, equity price correlation can potentially be a significant transmission channel in itself. Financial linkages, therefore, could have played a role in the recent episode of synchronisation.

In addition, confidence spillovers may play a role in the transmission of business cycles. While a high cross-country correlation of confidence measures may merely be a reflection of a high underlying correlation of real business cycles, it may also be the result of spillovers. For example, if residents simply “imitate” the behaviour of their counterparts abroad, confidence spillovers could prevail irrespective of existing economic linkages. A strong correlation in business confidence linkages has been observed between the United States and the euro area in the period from 1999 to 2001, with a correlation coefficient of up to 0.8 (with a lag of three quarters

with regard to the United States), compared with a correlation coefficient of 0.4 for the period from 1990 to 2001.¹

The currently observed parallel development of growth in major economic regions in the world may, however, also reflect common shocks. Since the first oil crisis in the early 1970s, major slowdowns in the world economy have often been associated with the lagged impact of sharp oil price increases. This could also hold true for the slowdown in major world economies in 2001, as oil prices in US dollar terms have more than tripled in the period from 1999 to 2000. However, a robust judgement regarding the relative importance of the various possible determinants of the observed business cycle synchronisation would require more solid theoretical and empirical foundations than are currently available.

1 IMF: World Economic Outlook October 2001, Box 2.1.

year, particularly in the ICT-intensive electrical machinery sector. The weakness in the manufacturing sector increasingly spread to other sectors of the economy and led to a sharp deterioration in the labour market situation, with the unemployment rate reaching an unprecedented level of 5.5% in December 2001 and the number of overtime hours worked declining rapidly. As private consumption spending declined and business fixed investment decelerated, overall GDP growth contracted in the second and third quarters of 2001, causing concern about an increase in non-performing loans and financial sector health in general.

On the price side, deflationary pressures intensified during most of 2001, leading to an average decline of 0.7% in the CPI. Against this background, the Bank of Japan took several decisions to ease the monetary stance in 2001. Most notably, in mid-March 2001, it changed its main operating target for money market operations from the uncollateralised overnight call rate to the outstanding balance of the current accounts held at the Bank of Japan. It also announced that the new operating strategy would be maintained until the annual rate of change in the CPI (excluding perishables) stabilised at or above 0%. The target for the current account balance was initially set at JPY 5 trillion, but was later increased in successive steps to a range of JPY 10 trillion to JPY 15 trillion. Moreover, the amount of outright purchases of long-term government bonds was increased from JPY 400 billion to JPY 1 trillion per month. As a result of this policy, the

uncollateralised overnight call rate was kept close to zero. As to fiscal policy, the Japanese Parliament passed a supplementary budget for the 2001 fiscal year in November 2001, containing JPY 3 trillion of additional expenditure, which emphasised structural reform, including measures to strengthen the social safety net, and a second supplementary package of JPY 2.6 trillion was approved at the beginning of 2002. As a consequence, the general government overall budget deficit rose to 6.4% of GDP in 2001, causing the debt-to-GDP ratio to increase to 132% in 2001.

In Asia, many emerging economies experienced a sharp economic downturn driven by the collapse of ICT exports. In many of the small open economies, the decline in external trade spilled over into the domestic economy, leading to increased pressure on firms and households, thereby weakening domestic demand. In addition, net private capital inflows slowed down – partly reflecting increasing economic uncertainty and the impact of external developments – contributing to a further dampening of economic activity. As a result, those open economies most heavily exposed to the ICT sector experienced a GDP contraction over the year. However, the more closed economies of China and India proved rather resilient to external developments and recorded robust annual real GDP growth rates, estimated at 7.3% and 5.0% respectively, on account of strong domestic investment and consumption spending. Against this backdrop, weakening GDP growth in the region led to

diminishing inflationary pressures, which were reinforced by lower oil prices in the latter part of the year.

Compared with other emerging markets, transition countries managed to weather the global slowdown and the aftermath of the terrorist attacks of 11 September 2001 relatively well. In the majority of these countries, output growth was fairly strong in the first half of the year, and only gradually began to moderate in the second half of 2001 as export growth weakened. Overall, the financial markets coped relatively well with instances of international turbulence, as signalled by the limited response of sovereign bond spreads to events in Argentina and Turkey. In Russia, real GDP growth is estimated to have reached 5% in 2001, after 8.3% in 2000. Benefiting from past higher oil prices, the country's fiscal and external accounts improved, which also led to a sizeable reduction in its external debt exposure. In the course of the year, however, the external factors underpinning growth weakened as oil prices declined, the real exchange rate appreciated and the global environment became less supportive.

Growth also began to moderate in most central and eastern European countries, following a robust performance in the first half of the year. In many countries, inflation abated, which partly reflected stability-oriented monetary policies and weakening economic activity. The main concern was related to a certain degree of deterioration in public deficits that could only be partly attributed to the structural expenditure associated with the transition process. In the Czech Republic, growth peaked in the first quarter of 2001, fostered by strong domestic demand and buoyant foreign direct investment flows, before decelerating in the second half of the year. Similarly, output growth in Hungary was initially sustained by the upturn in household consumption. In the course of the year, however, lower external demand increasingly started to have an impact, as shown by the weakening export-

oriented manufacturing sector and by subdued investment growth. In Poland, adverse domestic conditions and, subsequently, lower external demand reduced output growth to just above 1% in 2001, down from 4% in 2000.

In Turkey, weak economic fundamentals, as well as the high vulnerability of the banking sector, led to the floating of the Turkish lira towards the end of February 2001, which added to upward inflationary pressure. In the second half of the year, thanks also to the involvement of the IMF, market concerns about the sustainability of domestic debt eased somewhat, as reflected by a significant improvement in a range of financial market indicators.

In 2001, the Latin American countries were adversely hit by the global economic downturn, as well as by the worsening economic crisis in Argentina. As a result, economic activity in the region reached a standstill after the strong growth registered the year before. In Argentina, financial support from multilateral organisations, accompanied by massive debt restructuring programmes and fiscal austerity measures, proved ineffective in preventing high uncertainty and declining economic activity. Such negative developments led to the default on government obligations and – in early 2002 – the abandonment of the decade-long currency board system. Argentina's financial turmoil contributed until October 2001 to the deterioration of the economic situation in Brazil, which – having entered 2001 growing at a robust pace – was also negatively affected by both the global slowdown and a severe domestic power shortage. In addition, foreign direct investment flows to Brazil fell sharply from the previous year's record levels, highlighting the vulnerability of the country to adverse external shocks. The Mexican economy showed little contagion from the difficulties in South America, but economic activity decelerated markedly in response to developments in the United States and the moderation in oil prices, given that Mexico is a net oil exporter.

Africa is the only major economic region which showed stronger growth in 2001 than in the preceding year (around 4% in 2001, compared with 2.8% in 2000), mainly in relation to the end of the drought in the Maghreb countries. However, with exports accounting for more than one-third of African GDP, economic activity in the region was also affected by the global slowdown. In addition, market conditions for most non-fuel commodities, not all of which are closely correlated to the global cycle, were relatively weak in 2001.

Euro broadly stable in the second half of 2001

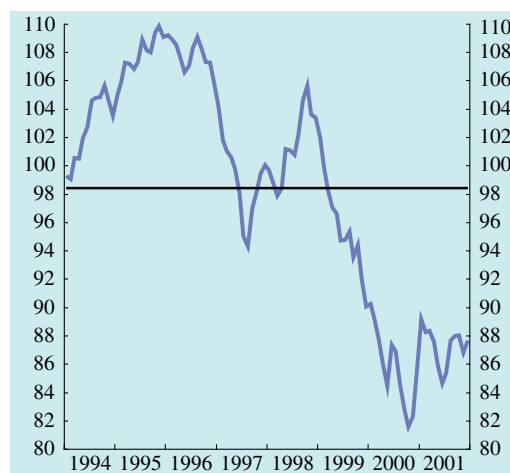
Following the strong rebound in the last few months of 2000 and in early January 2001, the external value of the euro gradually declined, in nominal effective terms, reaching a trough in June 2001. During the second half of the year, however, the single currency strengthened and subsequently stabilised at levels slightly higher than the average in 2000 (see Chart 20). These developments took place against a backdrop of a slowdown in global economic activity and increased uncertainty regarding the relative growth prospects in the major economic areas. Overall, at the end of 2001, the nominal effective exchange rate of the euro was more than 2% lower than at the beginning of the year, but more than 1½% above its average level in 2000. On 5 March 2002, the cut-off date for this Annual Report, the euro's nominal effective exchange rate had depreciated by 1.1% compared with the average for 2001. As for the real effective exchange rates, which are adjusted for the price and labour cost differentials between the euro area and its partner countries, these have moved broadly in tandem with the nominal index.

In late 2000 and early 2001, the euro appreciated vis-à-vis the US dollar, amid imminent signs of a slowdown in the United States. Subsequently, however, the euro depreciated against the US dollar throughout

Chart 20

Nominal effective exchange rate of the euro¹⁾

(monthly averages; index: 1999 Q1 = 100)



Source: ECB.

1) Data are ECB calculations (see the article in the April 2000 issue of the Monthly Bulletin). An upward movement of the index represents an appreciation of the euro. The horizontal line shows the average over the period shown (January 1994 to December 2001).

most of the first half of 2001, reaching a low of USD 0.8384 on 6 July 2001. This development appears to have been associated with a stream of data releases confirming a slowdown in euro area growth as well as a prevailing perception in financial markets that the US economy would rebound more swiftly than the euro area economy. As prospects for a rapid rebound in US economic activity started to fade in August 2001, the euro rebounded vis-à-vis the US dollar, with the appreciation being amplified against the background of increased global risk aversion in the aftermath of the tragic events of 11 September. As market uncertainty subsided in the months that followed, the euro stabilised at a somewhat lower level. At the end of 2001, the euro was quoted at USD 0.88, which was almost 6½% lower than at the beginning of the year and more than 4½% below its 2000 average. On 5 March, the euro traded at USD 0.87, which was 3.1% below its average in 2001.

The euro appreciated against the Japanese yen in 2001. During most of the first half of

the year, it traded closely to levels reached after its strong appreciation against the Japanese currency in the last quarter of 2000. The euro came under some temporary depreciating pressure in May 2001, mainly in response to firming evidence on the extent of the slowdown in economic activity in the euro area. Over the summer, however, deteriorating business conditions in Japan contributed to the euro's rebound towards levels seen at the beginning of the year. Between September and November 2001, the euro traded around an average value of JPY 108.95, before appreciating strongly amid a further deterioration of the economic situation in Japan towards the end of the year. On 28 December, the euro stood at JPY 115.33, which was about 6½% higher than at the beginning of the year and almost 16% higher than the average in 2000. On 5 March, the euro was quoted at JPY 114.46, i.e. 5.3% higher than the 2001 average.

Turning, finally, to the Swiss franc, broad stability characterised its evolution against the euro in the course of the year, at least up to September 2001. The terrorist attacks against the United States triggered an appreciation of that currency vis-à-vis the euro, probably due to "safe haven" considerations. By the end of 2001, the euro had recovered only partly against the Swiss currency and on 5 March was quoted at CHF 1.48.¹

Current account deficit declined in 2001

The current account of the euro area reported a deficit of €9.3 billion in 2001, compared with a deficit of €70.1 billion in 2000 (all data refer to the Euro 12). This decrease in the deficit resulted mainly from a rise in the goods surplus from €11.7 billion in 2000 to €74.1 billion in 2001, together with a change in the services deficit (€5.2 billion) to a surplus (€1.5 billion) over the same period. This was only partially offset by the increase of €10.2 billion in the income deficit in 2001 (to €37.7 billion), compared with the year before. The deficit for transfers remained virtually unchanged.

Although the volume of both exports and imports of goods declined during the year (see Box 7 for a detailed discussion) on account of lower foreign and euro area demand, the downturn was more pronounced for imports, thereby explaining part of the increase in the goods surplus (see Chart 21). Import prices declined by 9.9% over the first ten months of 2001, after increasing by 20.3% in 2000. This resulted mainly from the development in oil prices, which rose from €17.1 per barrel in 1999 to €31.0 per barrel in 2000 before decreasing to €27.8 per barrel in 2001.

¹ Developments with regard to the Danish krone, the Swedish krona and the pound sterling can be found in Chapter III.

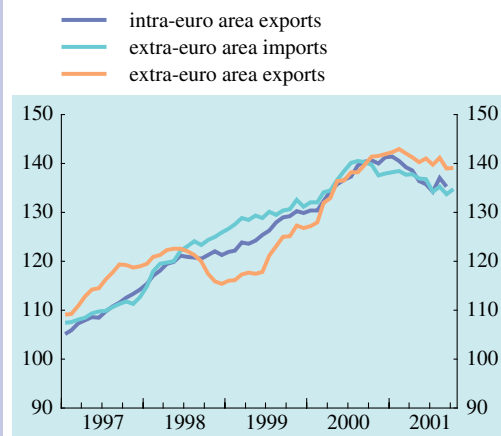
Box 7

Developments in euro area trade volumes since the Asian crisis

After growing strongly in the first half of 2000, the seasonally adjusted volume of extra-euro area imports of goods started to decline in the fourth quarter of 2000, while the volume of extra-euro area exports began to fall in the first quarter of 2001. However, the latter contracted less sharply than the volume of intra-euro area exports (which are equivalent, apart from a statistical discrepancy, to intra-euro area imports). To analyse the extent of the downturn in external trade in 2000/2001, a comparison is made with trade developments during the Asian crisis of 1998. The 2000/2001 downturn seems to have been due to a slowdown in both domestic and foreign demand, as the volume of both extra-euro area and intra-euro area exports declined, while the Asian crisis primarily represented an external shock. However, the Asian crisis seems to have resulted in permanently higher import penetration into the euro area by some Asian countries, while euro area export volumes to several Asian countries remained below their 1997 levels.

Extra-euro area export and import volumes and intra-euro area export volume

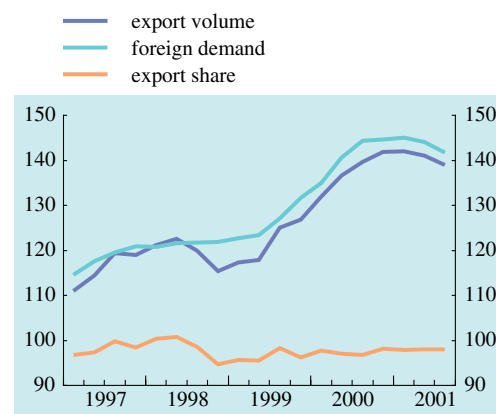
(index: 1995 = 100; three-month moving average)



Sources: Eurostat and ECB.
Note: All data are monthly and seasonally adjusted.

Extra-euro area export volume, foreign demand and export share

(index: 1995 = 100)



Sources: Eurostat and ECB.
Note: All data are quarterly and seasonally adjusted. The export share is derived by dividing the extra-euro area export volume by foreign demand.

Comparing recent developments in intra-euro area and extra-euro area trade volumes with the Asian crisis

The seasonally adjusted volume of both extra-euro area and intra-euro area imports of goods grew strongly from the beginning of 1997 until mid-2000, while that of extra-euro area exports declined in the second half of 1998 before recovering strongly in 1999. Hence, the latter were strongly influenced by the Asian crisis while intra-euro area trade and extra-euro area imports remained largely unaffected by the downturn in 1998.

In the fourth quarter of 2000, the volume of extra-euro area imports started to decline, while that of extra-euro area exports began falling slightly later in the first quarter of 2001 (see the chart on extra and intra-euro area export and import volumes). One striking feature is that the 2000/2001 downturn in extra-euro area exports is quite mild in comparison with the Asian crisis, despite the fact that the slowdown in foreign demand was relatively sharper during the 2000/2001 downturn (see the chart on extra-euro area export volume, foreign demand and export share). Although the decline in extra-euro area export volumes during the Asian crisis seemed to be partly due to the appreciation of the legacy currencies of the euro, the decline in extra-euro area exports in 2001 took hold despite the relatively low level of the effective exchange rate of the euro and seemed largely to have been driven by the downturn in global economic activity. Moreover, the euro area's share of the export market increased marginally in 2001.

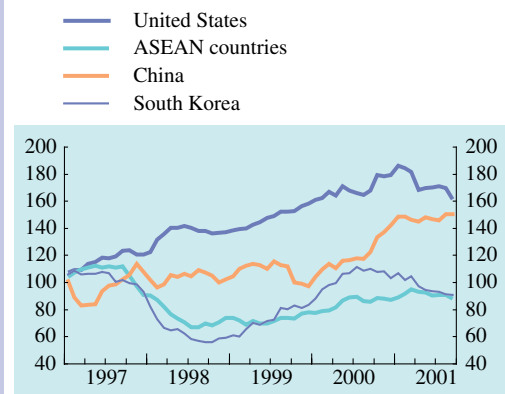
The 2000/2001 decline in intra-euro area exports is somewhat stronger than the decline in extra-euro area exports. Indeed, the situation is quite different from the Asian crisis when extra-euro area export volumes fell dramatically, while intra-euro area exports continued to grow. Accordingly, the 2000/2001 downturn seems relatively more pervasive as it seems to have been due to a slowdown in both euro area and foreign demand, while the Asian crisis primarily represented an external shock.

Developments in extra-euro area trade vis-à-vis partner countries since the Asian crisis

When comparing the evolution of trade volumes in 2000/2001 with that following the Asian crisis, it is worth breaking down the development of extra-euro area trade into trade with the United States and trade with major trading partners in Asia (excluding Japan). The chart below shows that the volume of exports from the euro area to the Asian countries considered here decreased noticeably in the aftermath of the Asian crisis. Not all countries were affected in the same way, however. While euro area exports to China fell somewhat, but

Euro area export volumes to the United States, China, South Korea and the ASEAN countries

(index: 1995 = 100; three-month moving average)

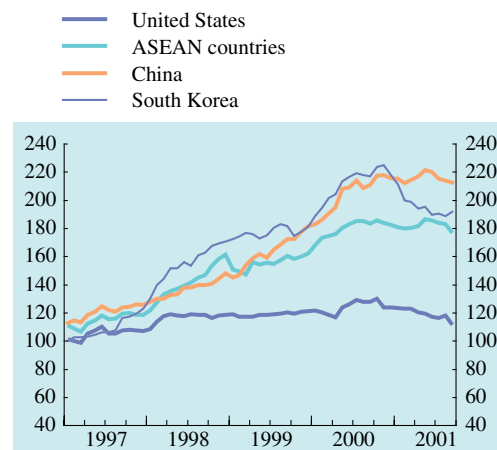


Sources: Eurostat and ECB.

Note: All data are monthly and seasonally adjusted. The members of ASEAN are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

Euro area import volumes from the United States, China, South Korea and the ASEAN countries

(index: 1995 = 100; three-month moving average)



Sources: Eurostat and ECB.

Note: All data are monthly and seasonally adjusted.

recovered swiftly, exports to the ASEAN countries and South Korea declined steadily for a prolonged period and never recovered to pre-crisis levels. This was probably due both to competitiveness effects and to more persistent downturns in domestic demand in the ASEAN countries, while Chinese demand remained more robust throughout the period. In fact, the volume of euro area exports to China increased by 41% from July 1997 to July 2001, while exports to the ASEAN countries declined by 13% over the same period. The chart below also shows that exports to the United States increased at a very fast pace until January 2001 (almost doubling since 1997), partly reflecting the strong growth of US GDP in recent years. Given that the United States is a major export market for the euro area, it seems that exports to the United States have accounted for a disproportionately large part of euro area export growth since 1997 and, accordingly, explain much of the fall in extra-euro area export volumes in 2001, in line with the downturn in US activity.

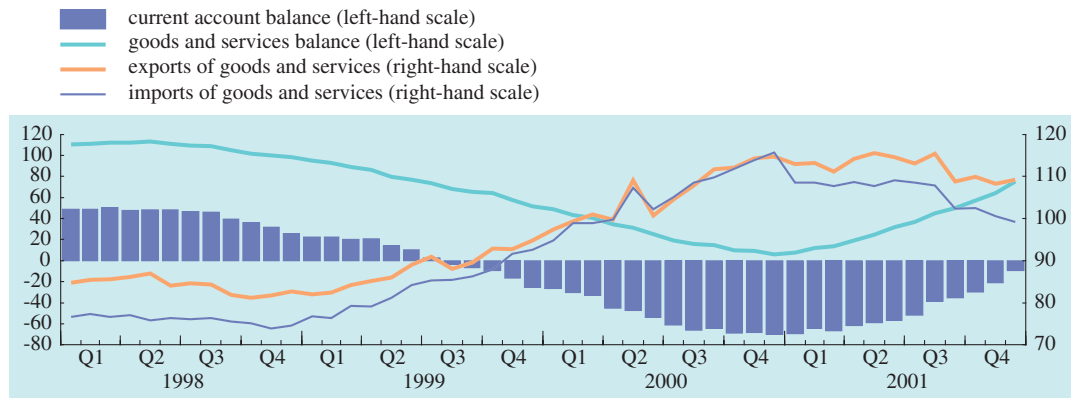
Comparing the recent evolution of imports with the period after the Asian crisis, the chart below shows that after 1997 the volume of imports from many Asian countries increased at a substantially faster pace than the rest of extra-euro area imports. In fact, import volumes from China and South Korea increased by more than 100% over that period. For South Korea, this is probably due mainly to competitiveness effects arising from lower import prices (expressed in euro), which have remained below their 1997 levels despite the depreciation of the euro since its launch. In the case of China, the increase in import volumes is most likely related to a relatively high level of foreign direct investment.

The aforementioned developments in exports and imports have prompted a change in the relative shares of Asia and the United States in euro area trade. Between 1996 and 2000, for example, the share of euro area exports to Asia fell from around 22% to slightly below 19%, while exports to the United States increased their share from around 13% to just over 17%. Within the same period, the share of imports from Asia increased from around 24% to slightly above 27%, with the share of imports from the United States remaining virtually unchanged. In summary, it seems that the Asian crisis reinforced the already upward trend in import penetration of the euro area by countries such as China and South Korea, while euro area export volumes to several Asian countries remain below their 1997 levels. This has occurred despite the gains in euro area price competitiveness that have resulted from the depreciation of the euro since 1999.

Chart 21

Euro area current account balance and trade in goods and services

(EUR billions, seasonally adjusted)



Source: ECB.

Note: Data refer to the Euro 12; cumulated 12-month data for the balances.

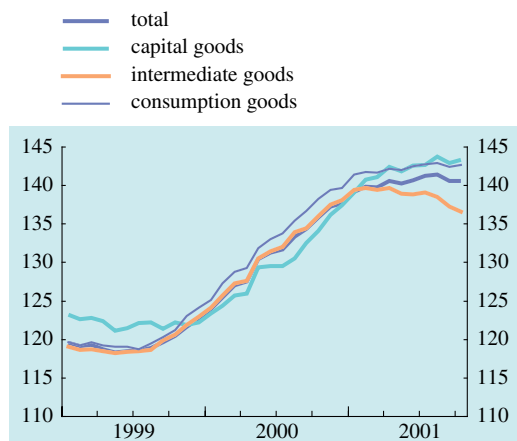
Looking at the product breakdown of extra-euro area exports, there are indications that the slowdown in export volumes started somewhat earlier for consumption goods than for intermediate and capital goods. For intermediate goods, the decline was far stronger than for the other two categories (see Chart 22).

With regard to the income account, Chart 23 shows that both credits and debits of income declined in the second part of the year, mainly as a result of the slowdown in global activity and the associated fall in profitability. However, income receipts decreased more rapidly than payments, thereby causing the income deficit to rise in 2001.

Chart 22

Extra-euro area export volume indices of consumption, intermediate and capital goods

(index: 1995 = 100; not seasonally adjusted; 12-month moving average)



Sources: Eurostat and ECB calculations based on Eurostat data. Note: All data refer to the Euro 12; latest observations are for October 2001.

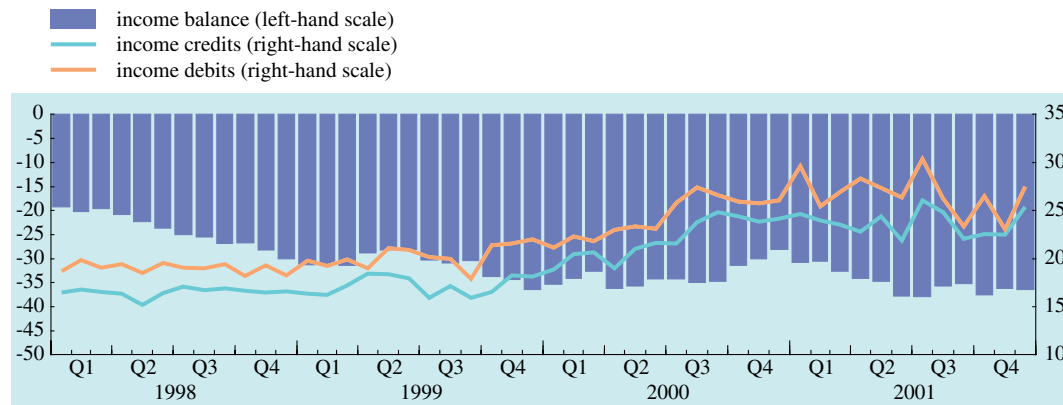
Combined direct and portfolio investment net outflows declined in 2001

Combined net outflows in direct and portfolio investment in 2001 (€53.0 billion) were lower than in 2000 (€87.6 billion, see Chart 24). This reduction in net outflows in 2001 resulted mainly from a switch in portfolio investment from large net outflows in 2000 (€102.8 billion) to net inflows in 2001 (€40.9 billion), which was only partially compensated for by a shift of net direct investment from net inflows in 2000 (€15.2 billion) to net outflows in 2001 (€93.9 billion). Developments in 2001 must be seen against the background of a substantial decrease with respect to 2000 in merger and acquisition activity, often settled via distribution of shares, which had resulted in inflows of foreign direct investment and outflows of portfolio investment. On the

Chart 23

Euro area income account

(EUR billions, seasonally adjusted)



Source: ECB.

Note: Data refer to the Euro 12; cumulated 12-month data for the balance.

other hand, net outflows in direct investment for 2001 were mostly related to inter-company loans, which may partly reflect one-off costs of euro area companies for the restructuring of previously acquired affiliates abroad. As for the shift in portfolio investment to net inflows in 2001, this reflects a substantial rise in net equity inflows, possibly related to international portfolio rebalancing activities due to the deterioration of the growth outlook in the United States. Conversely, debt instruments recorded large net outflows in 2001. This development seems to be associated primarily with expectations of capital gains as a result of an anticipated sharp decline in interest rates in the United States.

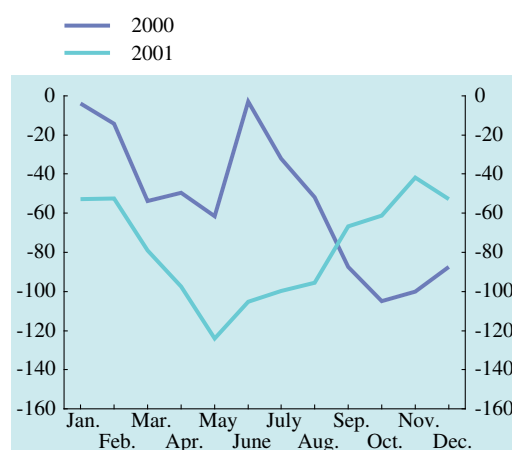
Since 1999, the balance of payments of the euro area has displayed a current account deficit, combined with significant net outflows in both direct and portfolio investment. The main source of the balance of payments financing has been short-term operations of euro area MFIs (excluding the Eurosystem). However, the net external position of euro area MFIs (excluding the Eurosystem)

improved in the course of 2001 as net liabilities of the euro area MFIs (excluding the Eurosystem) declined from €162.6 billion in 2000 to €3.8 billion in 2001.

Chart 24

Net financial flows of the euro area in 2000 and 2001

(EUR billions, combined net direct and portfolio investment, cumulated data)



Source: ECB.

Note: A positive (negative) number indicates a net inflow (outflow).



France: **Cleaning a printing plate at the Banque de France printing works in Chamallières**

Chapter II

Central bank operations

I Monetary policy implementation

I.1 Overview

The operational framework for the implementation of the single monetary policy worked efficiently in 2001, further confirming the overall positive experience since the start of Monetary Union. Apart from Greece's entry into the euro area on 1 January 2001, only very limited changes were made in the course of the year. Therefore, the three main elements of the operational framework – namely open market operations, standing facilities and minimum reserves – as well as the modalities of monetary policy implementation relying upon the decentralised execution and administration of operations by NCBs remained unchanged. A detailed description of the operational framework can be found in the document entitled “The single monetary policy in Stage Three: General documentation on Eurosystem monetary policy instruments and procedures” (December 2000).

Among the open market operations, the main refinancing operations (MROs) are the most important, playing a pivotal role in steering liquidity conditions and signalling the stance of monetary policy. They were conducted as fixed rate tenders from January 1999 to 20 June 2000 and after that as variable rate tenders with a minimum bid rate. The MROs provide the bulk of the refinancing to the banking sector. They are regular, liquidity-providing, reverse transactions, conducted as standard tenders, with a weekly frequency and normally a maturity of two weeks. Moreover, once a month the Eurosystem executes longer-term refinancing operations (LTROs) with a three-month maturity. These operations are aimed at providing longer-term refinancing to the banking sector. In addition to the regular open market operations, the Eurosystem conducted two fine-tuning reverse operations and two structural reverse operations in 2001.

The two standing facilities offered by the Eurosystem, namely the marginal lending

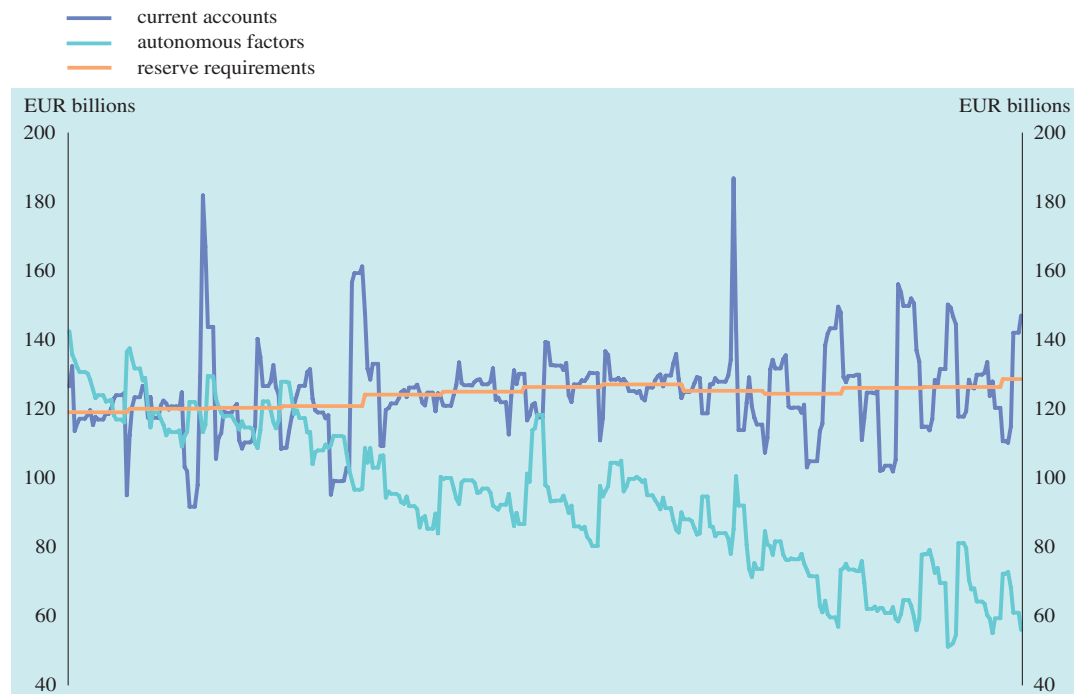
facility and the deposit facility, aim to provide and absorb overnight liquidity, signalling the stance of monetary policy and setting an upper and lower limit for the overnight market interest rate.

Besides offering the standing facilities, the Eurosystem requires credit institutions to hold minimum reserves with it equal to 2% of certain short-term liabilities. The purpose of this requirement is the stabilisation of short-term money market interest rates and the enlargement of the structural liquidity deficit of the banking system vis-à-vis the Eurosystem. The stabilisation of money market rates is facilitated by the fact that reserve requirements must only be fulfilled on average over a one-month reserve maintenance period. This has a significant smoothing effect on the behaviour of money market interest rates within the reserve maintenance period. It also enables the Eurosystem, under normal circumstances, to limit its open market operations to regular MROs and LTROs. As the required reserves are remunerated at the average marginal rate, over the maintenance period, of the Eurosystem's main refinancing operations, they do not entail any significant cost to the banking sector.

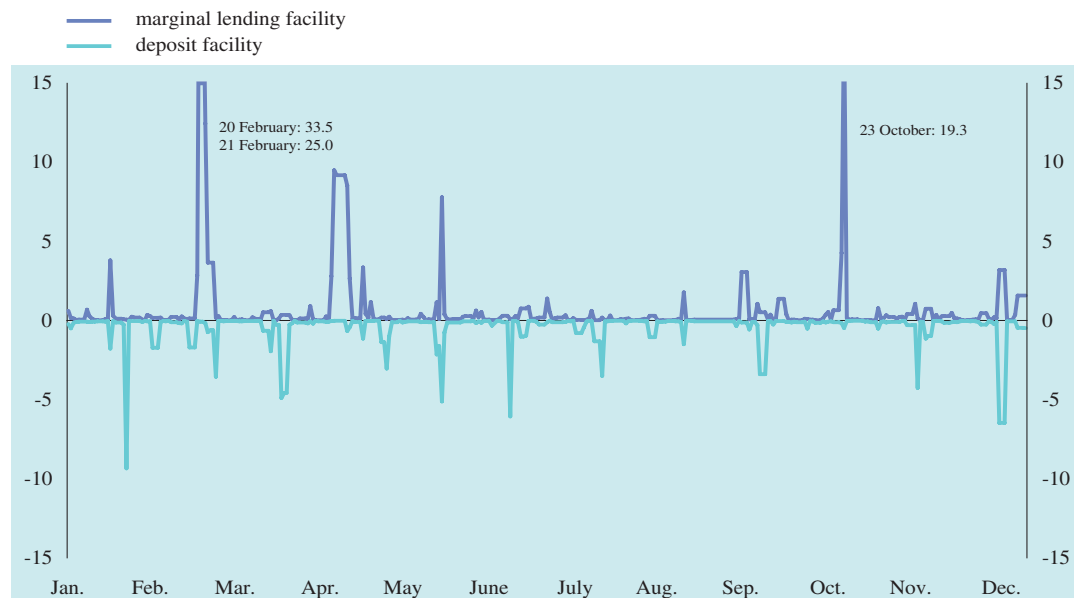
In its management of the liquidity conditions in the euro area money market, the Eurosystem focuses on the interbank market for reserves. In this context, reserves are understood as being the current account deposits that credit institutions in the euro area hold with the Eurosystem in order to fulfil reserve requirements. The supply of such reserves is determined by the net effect of the liquidity provided through monetary policy operations and the liquidity withdrawn by the so-called “autonomous factors”. The latter refer to a central bank's balance sheet items which do not depend on monetary policy operations, such as banknotes in circulation, government deposits, items in the course of settlement and net foreign assets.

Chart 25

Liquidity factors and the use of standing facilities in the euro area in 2001



Standing facilities



The level of the autonomous factors ranged from €51.1 billion to €142.6 billion in 2001, averaging €94.1 billion (see Chart 25). The average level of the autonomous factors in 2001 was €9.0 billion lower than in 2000, implying that the liquidity deficit of the banking sector vis-à-vis the Eurosystem decreased by this amount as a result of these factors. The decreasing trend in the autonomous factors resulted from the decline in banknotes in circulation ahead of the 2002 euro cash changeover. The most volatile autonomous factor was government deposits with the NCBs. Their volatility (measured by the standard deviation of the daily changes) amounted to €4.3 billion, compared with €1.1 billion for banknotes in circulation and €1.5 billion for net foreign assets.

The Eurosystem's monetary policy framework allows a broad range of counterparties to participate in monetary policy operations. All credit institutions subject to minimum reserves may, in principle, access the standing facilities and participate in open market operations based on standard tenders. However, in addition to the general eligibility criteria, counterparties must also fulfil all operational criteria specified in the contractual or regulatory arrangements applied by the Eurosystem to ensure the efficient conduct of monetary policy operations. As a consequence, 3,409 of the 7,219 euro area credit institutions subject to minimum reserves at the end of December 2001 had access to the deposit facility, and 3,065 to the marginal lending facility. 2,454 credit institutions could participate in open market operations based on standard tenders. There is a select group currently consisting of 141 credit institutions eligible for fine-tuning operations. Compared with the situation prevailing at the end of 2000, the total number of credit institutions subject to minimum reserves decreased by 302, mainly owing to consolidation in the banking industry.

1.2 The main refinancing operations

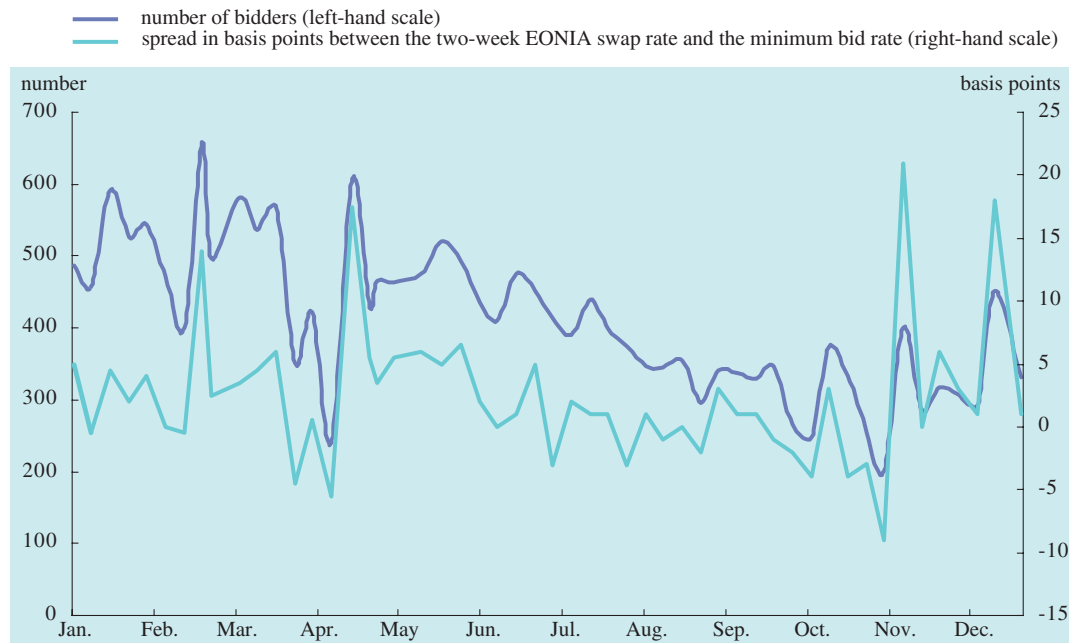
In 2001 the Eurosystem conducted 52 MROs. Of all the liquidity provided through regular open market operations, 73% was supplied by MROs. The MROs were conducted as variable rate tenders with a minimum bid rate according to the multiple rate ("American") auction procedure. According to this procedure, bids above the marginal allotment rate (the lowest accepted bid) are satisfied in full and at the interest rate offered, while bids at the marginal rate are allotted pro rata. The allotment volumes varied between €5 billion and €172 billion, with the average amounting to €79 billion. The bid cover ratio, which expresses how many times the total bid amount exceeds the total allotment amount, ranged between 1.0 and 16.7, averaging 1.9.

As a result of the multiple rate auction procedure, the allotment rates (i.e. the marginal rate and the weighted average rate) can be higher than the minimum bid rate. The average spread between the marginal rate and the minimum bid rate in the MROs was 2.3 basis points in 2001, while the average spread between the weighted average rate and the marginal rate amounted to 1.4 basis points. The narrowness of the latter spread indicates that counterparties were generally quite capable of anticipating the marginal rates of the MROs and that the dispersion of the bid rates among counterparties was generally limited. A comparison of the bidding in MROs in 2001 with that in the second half of 2000 reveals the impact of interest rate expectations on the allotment rates. In 2000, rate hike expectations prevailed, meaning that money market rates – and hence bid rates and allotment rates – tended to be considerably above the minimum bid rate. In 2001, rate cut expectations dominated, so that market rates tended to be close to, or even below, the minimum bid rate (see Chart 26). This had the result that bid rates were normally submitted close to the minimum bid rate, which often turned out to be the same as the marginal rate in these cases.

Chart 26

Number of bidders and the spread between the two-week EONIA swap rate and the minimum bid rate

(weekly data)



The dominance of rate cut expectations in 2001 contributed to the decline in the average number of counterparties participating in Eurosystem MROs during the year (see Chart 26). When compared with the second half of 2000, this average number declined by 36% to 410. During 2001, the number of counterparties participating in the MROs ranged from 201 to 658. Other factors explaining this downward trend in participation in MROs include the consolidation in the euro area banking industry, the increased concentration of treasury management activities within banking groups and greater efficiency in the interbank market which tends to reduce the need to obtain refinancing from the central bank directly.

In addition to causing a decline in the allotment rates and the number of bidders, strong rate cut expectations can result in underbidding, which occurred in the MROs conducted on 13 February, 10 April, 9 October and 6 November. In these MROs the aggregate bid amount submitted by

counterparties fell short of the actual liquidity needs of the banking system, exerting strong upward pressure on the overnight rate. In all four cases, the ECB provided large amounts of liquidity in the following MRO, although it could not always fully restore neutral liquidity conditions since it also had to take into account the liquidity supply in the subsequent maintenance period. The tight liquidity conditions and high interbank overnight rates resulting from the underbidding improved the understanding in the money market that the banking community cannot use underbidding as a profit-making strategy.

The switch to the variable rate tender procedure in June 2000 was accompanied by the decision to start publishing an estimate of the aggregate liquidity needs of the banking system in order to facilitate the preparation of bids by counterparties. The liquidity needs of the banking system are related to two items: first, the reserve requirements; and second, the autonomous factors. Of these two components, the reserve requirements

are generally known with a high degree of accuracy, while the estimate of the autonomous factors is less certain. In 2001 the average absolute forecasting error (i.e. the absolute difference between the estimated value of the autonomous factors published once a week and the corresponding outcome) was €1.9 billion. The standard deviation of the difference between the estimated and the actual values was €2.7 billion.

1.3 The longer-term refinancing operations

In addition to the MROs, the Eurosystem also conducts LTROs, which are liquidity-providing reverse transactions with a monthly frequency and a maturity of three months. On average over the year, LTROs provided about 27% of the total refinancing through regular open market operations. In contrast to MROs, the LTROs are not, as a rule, conducted with the intention of steering the liquidity situation or signalling the monetary policy stance. In order for the Eurosystem to act as a rate-taker, LTROs have been conducted in the form of variable rate tenders with the multiple rate (“American”) auction procedure, pre-announced allotment volumes and no minimum bid rate. All the LTROs conducted in 2001 had a pre-announced allotment volume of €20 billion, meaning that €60 billion of lending to the banking system was permanently outstanding via this type of open market operation.¹ On average, 225 counterparties participated in the LTROs in 2001, with the actual numbers ranging from 195 to 268. Compared with 2000, the participation rate declined by 17%, mainly for the same reasons as those mentioned previously for the MROs.

In the LTROs, the dispersion of bids was generally higher than in the MROs, mainly because of the absence of a minimum bid rate. On average over the year, the weighted average rate exceeded the marginal rate by 2.7 basis points, compared with 2.2 basis points in 2000. The bid cover ratio averaged 2.0, as opposed to 2.8 in the previous year.

1.4 Other open market operations

In 2001 the Eurosystem undertook two fine-tuning operations and two structural operations. Both fine-tuning operations were carried out to facilitate the normal functioning of markets and to provide liquidity after the terrorist attacks in the United States on 11 September (see Box 8).

On 27 April and 27 November, in parallel with the respective MROs, the Eurosystem carried out one-week structural reverse operations. These operations, also called “split tenders”, enabled the ECB to restore similar sizes to the two outstanding MROs.² On both occasions, the sizes of the two outstanding MROs had diverged strongly on account of previous underbidding. The additional operations were also specified as standard tenders, albeit with a shorter maturity, and implemented as variable rate tenders with the same minimum bid rate as in the MRO conducted in parallel. On 27 April, the ECB allotted €80 billion in the MRO and €73 billion in the one-week structural operation, both at the same marginal rate. On 27 November, the ECB allotted €71 billion in the MRO and €53 billion in the one-week structural operation, with the marginal rate for the latter 1 basis point higher than in the regular MRO.

1.5 Standing facilities

The width of the interest rate corridor determined by the two standing facilities remained unchanged at 200 basis points in 2001. The minimum bid rate of the MROs remained in the middle of this corridor.

¹ Owing to a technical problem in the submission of bids, the amount allotted had to be reduced to €19.1 billion on 28 March 2001.

² In future cases, such “split tenders” will also be formally classified as MROs, implying that their marginal rate will be included in the calculation of the remuneration of holdings of required reserves.

Over the year, the daily recourse to the marginal lending facility and the deposit facility amounted, on average, to €0.7 billion and €0.4 billion respectively. While the average use of the deposit facility declined by 21% relative to 2000, the average use of the marginal lending facility increased by 97%, mainly as a consequence of the underbidding episodes (see Chart 25). Normally, recourse to the standing facilities is relatively low during most of the maintenance period, as can be seen from Chart 25. Counterparties generally use the deposit facility only after they have fulfilled their reserve requirements which – for most credit institutions – occurs only in the last days of the maintenance period. Accordingly, the use of the deposit facility over the last three business days of the maintenance periods was on average seven times higher than on other maintenance period days in 2001. The same also applies, albeit to a lesser extent, to the use of the marginal lending facility, with the average use over the last three business days being 5 times higher than on other days of the maintenance periods. The total number of credit institutions which had access to the deposit facility declined by 190. The corresponding number for the marginal lending facility increased by 6.

1.6 The minimum reserve system

The average level of reserve requirements held by credit institutions in the euro area amounted to €124 billion in 2001. This was €12.2 billion higher than in 2000, increasing the overall structural liquidity deficit of the banking sector vis-à-vis the Eurosystem by this amount. The level of the aggregate reserve requirements varied between €119.1 billion (during the maintenance period ending on 23 January) and €127.2 billion (during the maintenance period ending on 23 August). The average monthly reserve base subject to the 2% reserve ratio increased by 10% relative to 2000.

Of the 7,219 credit institutions subject to minimum reserves in December 2001, 4,649

fulfilled their requirements directly, while others fulfilled them indirectly through an intermediary. The current account holdings of banks fluctuated between €91.6 billion and €186.9 billion in the course of the year, indicating that a substantial buffer against unexpected liquidity withdrawals was always available (see Chart 25). Indeed, the volatility of the EONIA (euro overnight index average) remained subdued in 2001. The standard deviation of its daily changes was only 15 basis points, which is rather small by international standards, despite the very low frequency of fine-tuning operations. In 2000, the standard deviation of the EONIA was 14 basis points. Consequently, the two main functions of the minimum reserve system, namely the stabilisation of money market interest rates and the enlargement of the structural liquidity deficit of the banking sector, were once again successfully fulfilled.

As a consequence of the smooth functioning of the minimum reserve system, no changes were made to its main features. Only two new elements were introduced to the system in 2001. First, on 1 March 2001, the ECB issued a Recommendation for a Council Regulation (EC) to extend from 15 days to two months the time limit granted to the Governing Council of the ECB for deciding on objections raised by credit institutions to sanctions imposed for breaches of minimum reserve limits. This amendment became binding when the Regulation to amend Council Regulation 2531/98 concerning the application of minimum reserves by the ECB, entered into force on 26 January 2002. Second, 10 May 2001 saw the adoption of Regulation ECB/2001/4 amending Regulation ECB/1999/4 of 23 September 1999 on the powers of the European Central Bank to impose sanctions. This binding legal act established the NCBs' and ECB's obligation to retain original documents on non-compliance cases for at least five years.

The introduction of the euro in Greece on 1 January 2001 implied some adjustments for the Eurosystem's first reserve maintenance period in 2001, since it started in Greece

only on 1 January 2001, while in the other participating Member States it started as usual on 24 December 2000. As a result, the accession of Greece to the euro area increased the aggregate reserve requirement of the Eurosystem from 1 January 2001 by €2.1 billion. All in all, 57 Greek credit institutions became subject to Eurosystem minimum reserves.

During 2001, 70 cases of non-compliance with reserve requirements were observed on average per reserve maintenance period, corresponding to an average daily shortfall of €1.2 million. A large proportion of these non-compliance cases were only for negligible amounts, meaning that no penalty was imposed. However, there were also several rather large infringements and 25 of them led to fines in excess of €10,000. Most of the non-compliant credit institutions acknowledged the errors, while 14 institutions raised objections that required a decision by the Executive Board of the ECB. One credit institution requested a review of the decision of the Executive Board by the Governing Council.

1.7 Eligible assets

The Statute of the ESCB requires that all the Eurosystem's credit operations be covered by adequate collateral. The collateral framework of the Eurosystem is designed to protect the Eurosystem against incurring losses in its monetary policy and payment system operations (see Chapter III on risk control measures), to ensure the equal treatment of counterparties and to enhance operational efficiency. Common eligibility criteria for collateral accepted for credit operations conducted by the Eurosystem are applied. At the same time, due regard is given to differences in central bank practices and financial structures across the euro area and to the need for the Eurosystem to ensure sufficient availability of adequate collateral for its credit operations. According to Article 102 of the Treaty establishing the European Community, privileged access by

public institutions to financial institutions is prohibited; there should therefore be no discrimination within the collateral framework on the grounds of the public or private nature of the issuers.

In order to take account of existing differences in the financial structure of participating Member States, assets eligible for credit operations include a large number of different instruments. A distinction is made between two categories of assets eligible for the credit operations of the Eurosystem. These two categories are referred to as "tier one" and "tier two" respectively. This distinction has no bearing on their eligibility for the various types of Eurosystem monetary policy operations, except that tier two assets are not normally expected to be used by the Eurosystem in outright transactions. Tier one consists of marketable debt instruments fulfilling uniform eligibility criteria specified by the ECB. Tier two consists of assets which are of particular importance for national financial markets and banking systems and for which eligibility criteria are established by the NCBs, subject to minimum eligibility criteria established by the ECB. Tier two assets may be marketable or non-marketable debt instruments or they may be equities.

Eurosystem counterparties may use eligible assets on a cross-border basis, i.e. they can obtain funds from the NCB of the Member State in which they are established by making use of assets located in another Member State. To enable the cross-border use of collateral in all types of Eurosystem liquidity-providing operations, the correspondent central banking model (CCBM), as well as "links" between securities settlement systems (SSSs) that have been positively assessed against the standards of the Eurosystem, are available. The CCBM can be used for all eligible assets, as specific solutions are provided for non-marketable assets or tier two assets with restricted liquidity and special features that cannot be transferred through an SSS (see Chapter VII).

Table 10**Main categories of eligible assets for Eurosystem credit operations**

| Type of asset | Tier one (European Economic Area) | Tier two (euro area) |
|----------------|---|---|
| Marketable | <ul style="list-style-type: none"> • ECB debt certificates (at present not issued) and NCB debt certificates (issued prior to EMU) • Debt issued by foreign and supranational institutions • Central, regional and local government securities • Uncovered credit institution bonds • Asset-backed securities • Corporate bonds | <ul style="list-style-type: none"> • Central, regional and local government securities • Credit institution bonds • Corporate bonds • Certificates of deposit • Medium-term notes • Commercial paper • Equities • Marketable private claims |
| Non-marketable | <ul style="list-style-type: none"> • None | <ul style="list-style-type: none"> • Bank loans • Mortgage-backed promissory notes • Trade bills |

Between January and December 2001 the total amount of marketable assets eligible as collateral for Eurosystem credit operations increased by 5% from approximately €6.3 trillion to €6.6 trillion. A very large proportion, i.e. 95%, of marketable assets were tier one assets, while the remaining 5% were tier two assets. In addition to marketable assets, tier two assets consist of non-marketable debt instruments, including bank loans, trade bills and mortgage-backed promissory notes.³ Although tier one assets are the main source of collateral for monetary policy operations, some credit institutions rely to a large extent on tier two collateral.

While a large amount of securities are potentially available to counterparties for Eurosystem credit operations, the actual amount of assets held by credit institutions is only part of the total amount of eligible assets, since assets are also held by other economic agents. According to a rough estimate by the Eurosystem at the beginning of 2001, about one-third (i.e. approximately €2.1 trillion) of all eligible collateral was held by credit institutions in the euro area. The actual amount of collateral held by counterparties is a function of their balance sheet structure, which, in turn, is related to the financial structure of the individual euro area countries. The differences in available collateral among counterparties also reflect differences in the level of sophistication reached by financial markets in the individual euro area countries, such as the degree of

development of private sector securities markets and of the legal frameworks for securitisation. The initial differences in availability appear to be diminishing, partly owing to increased private issuance of debt securities in the euro area markets, spurred by the introduction of the euro and the significant growth in the cross-border use of collateral.

The collateral eligible for Eurosystem credit operations encompasses a very broad spectrum of high-quality assets denominated in euro, issued (or guaranteed) by entities established in the European Economic Area for tier one assets, or in the euro area for tier two assets (see Table 10). A substantial part of tier one (which comprises debt instruments only) is made up of general government bonds, i.e. assets issued by central, regional and local governments. Securities issued by central governments typically have a high outstanding amount, large issue size and turnover and low trading spreads. They are quantitatively the most abundant source of eligible collateral in almost all euro area countries. Regional and local government securities in different countries display differing degrees of liquidity, but are in general less liquid than central government bonds. Other types of assets in tier one include securities issued by international and supranational institutions.

³ The amount of eligible non-marketable tier two assets is not available.

Private sector securities in tier one include asset-backed securities, uncovered credit institution bonds and bonds issued by corporations. Many asset-backed bonds are securities backed by residential mortgages or by public sector debt. Unlike other asset-backed securities, these are issued directly by specialised credit institutions rather than through special purpose vehicles⁴. Assets similar to “Pfandbriefe”, which originated in German and Austrian markets, have also been introduced or have experienced issuance growth in recent years in other euro area countries (for example, “obligations foncières” in France and “cédulas hipotecarias” in Spain).

Outstanding amounts of uncovered credit institution bonds are large in some euro area countries, but turnover is generally low compared with government bonds or certain Pfandbrief-type products (such as the so-called “Jumbo” issues). For corporate bonds, the issue size is normally smaller than for other types of issuer in many euro area countries and the available data show that turnover is substantially lower than for government bonds. Corporate bond markets have experienced substantial growth in issuance in the wake of the introduction of the euro.

Tier two assets include credit institution or corporate bonds, commercial paper, medium-term notes, regional government bonds, bank loans, trade bills, mortgage-backed promissory notes and equities. Except for this last category, the liquidity is generally lower and the market depth shallower for tier two assets than for tier one assets. Many of these tier two assets are not listed or traded on a regulated market, but are traded over the counter.

The management and publication of the complete list of assets eligible for Eurosystem credit operations are handled centrally at the ECB, where an Eligible Assets Database is kept. The NCBs submit information to the ECB on assets issued in their respective national markets. Data are collected weekly

and are made accessible to all interested parties by the ECB on its website (www.ecb.int). The solution of publishing the list of eligible assets on the internet has proved to be efficient. Preparations are currently under way to improve the efficiency of the updating procedure and to increase the frequency of the present weekly update.

1.8 Money market activity

The introduction of the euro led to the creation of a large, liquid and integrated money market across the euro area. This holds true for most of the different money market segments, although the signs of integration have been particularly evident in the unsecured lending and swap segments. Progress towards integration is also evidenced across a number of financial centres by a centralisation of euro area treasury management activities within banks. The cross-border activity within the euro area is strong and these transactions are widely considered as quasi-domestic. There is also an increasing concentration of intermediation activity within a relatively small number of major institutions, which have become less domestically oriented and whose activity has spread across the euro area.

Although less integrated, the euro repo market showed improvements, as evidenced by a significant growth of cross-border transactions in this segment. As part of the efforts to promote a more integrated repo market, market participants have been involved in a project conducted under the aegis of the European Banking Federation and the European Repo Council for the establishment of a representative benchmark for the euro “general collateral” repo market (Eurepo reference rates). This benchmark became operational in March 2002.

⁴ A special purpose vehicle is a legal entity set up to acquire and hold certain assets on its balance sheet and to issue securities backed by those assets, to be sold to third parties.

As regards the market for short-term securities (e.g. Treasury bills, commercial paper and certificates of deposit), the development remains limited compared with that prevailing in other money market segments. This market is still fragmented, as transactions remain essentially domestically oriented. However, a general trend towards an increased emphasis on market-based financing has sustained the dynamic growth of commercial paper issuance.

Activities involving euro-denominated money market derivatives, such as interest rate swaps and futures, continued to record

significant increases during 2001. The Bank for International Settlements' Triennial Central Bank Survey, conducted in April 2001, concluded that 47% of the global daily turnover in over-the-counter interest rate derivatives took place in euro. The liquidity of the interest rate swap market has been enhanced, inter alia, by the systematic use of this market segment for hedging and position-taking purposes. The EONIA continues to show an increasing importance as an index for the overnight-interest-swap (OIS) market. For very short-term maturities, the swap market is now almost exclusively based on this reference rate.

2 Foreign exchange operations and investment of foreign reserve assets

The Eurosystem is responsible for holding and managing the foreign reserve assets of the participating EU Member States.

behalf of the ECB with other SDR holders (see Chapter V). This arrangement was activated on one occasion in 2001.

2.1 Foreign exchange operations

In 2001 the ECB did not conduct any intervention in the foreign exchange market on its own initiative. However, on 24, 26 and 27 September, the ECB and selected NCBs conducted operations in the foreign exchange market on behalf of the Bank of Japan under the agency agreement between that institution and the ECB. In addition, following the terrorist attacks in the United States, the US Federal Reserve and the ECB agreed on a swap arrangement on 12 September, which was used on 12, 13 and 14 September (see Box 8).

On 15 November 2000, the International Monetary Fund (IMF) approved the ECB's application to become a prescribed holder of special drawing rights (SDRs), thereby enabling the ECB to participate in voluntary transactions with IMF member countries and other prescribed SDR holders. A standing arrangement between the ECB and the IMF was signed in April 2001 to facilitate the initiation of SDR transactions by the IMF on

2.2 The foreign reserve assets of the Eurosystem

At the end of 2001, the ECB's net foreign reserve assets amounted to €46.8 billion compared with €43.5 billion at the end of 2000. This change reflects the impact of three elements: the transfer of foreign reserve assets by the Bank of Greece to the ECB upon joining the euro area at the beginning of the year, the interest income earned on the ECB's foreign reserves and the change in the market value of these foreign reserve assets. The possibility exists for the ECB to make further calls on the NCBs' foreign reserve assets under the conditions defined in secondary European Community legislation (i.e. Council Regulation (EC) 1010/2000 of 8 May 2000 concerning further calls of foreign reserve assets by the European Central Bank).

The Governing Council has defined the currency distribution of the ECB's foreign reserves, which consist of gold, US dollars and Japanese yen, on the basis of optimal currency allocation studies and prospective

Box 8

Central bank operations in the aftermath of the terrorist attacks on 11 September 2001

The terrorist attacks in the United States on 11 September 2001 had far-reaching implications for financial markets, leading the world's major central banks to act to support the normal functioning of these markets. On the day of the attacks, the Eurosystem announced its readiness to support the normal functioning of the markets and provide liquidity, if necessary.

In line with its announcement, the Eurosystem conducted two liquidity-providing fine-tuning operations in order to smooth developments in the euro money market. These were carried out as reverse operations under quick tender procedures, with same-day settlement and one-day maturity. A fixed rate of 4.25% which coincided with the then prevailing minimum bid rate of the main refinancing operations was applied in both operations. In the first operation, bids amounted to €69.3 billion, with 63 counterparties participating. In the second, 45 counterparties submitted bids totalling €40.5 billion. The ECB satisfied all bids in both operations.

In addition to providing euro liquidity, the Eurosystem helped euro area banks to meet urgent US dollar liquidity needs which resulted from settlement problems with some US correspondent banks and the reluctance of US banks to lend dollars before arranging their own liquidity needs, the latter only taking place after the end of the European trading session. In order to provide the required dollar liquidity, the US Federal Reserve and the ECB agreed on a swap arrangement on 12 September. Under the agreement, the ECB was eligible to draw up to USD 50 billion on a swap line, receiving dollar deposits at the Federal Reserve Bank of New York. In exchange, the Federal Reserve Bank of New York would receive euro deposits of an equivalent amount at the ECB. The swap line expired on 13 October.

The ECB drew on the swap facility on 12, 13 and 14 September. The first amount drawn on 12 September totalled USD 5.4 billion and matured on 17 September. The swap line was again drawn upon on the following two days for overnight swaps totalling USD 14.1 billion on 13 September and USD 3.9 billion on 14 September. The dollar deposits were made available to NCBs of the Eurosystem and were used by the latter to help meet the dollar liquidity needs of euro area banks.

Against the background of increased uncertainty about the US and world economies following the terrorist attacks, the Federal Open Market Committee lowered the federal funds rate on 17 September. In concert with this decision, and taking into account the likelihood that the events in the United States would weigh on confidence in the euro area, the Governing Council of the ECB, also on 17 September, reduced the minimum bid rate on the Eurosystem's main refinancing operations by 50 basis points to 3.75%. Similarly, a number of other central banks lowered their key interest rates on 17 and 18 September (for an overview of all monetary policy decisions taken in 2001, see Chapter I).

In the field of foreign exchange, the immediate dollar depreciation ensuing from the terrorist attacks exerted intense and undesirable upward pressure on the Japanese yen. Within the context of the agency agreement between the ECB and the Bank of Japan, the ECB (and selected euro area NCBs acting on behalf of the ECB) bought euro against yen on 24, 26 and 27 September for the Bank of Japan.

operational needs, and may change it if and when it deems appropriate. In order to avoid any interference with the monetary policy of the ECB, there is no active trading of the foreign reserve currencies for investment purposes. Regarding gold assets, the ECB has

not entered into any type of management, in line with the Central Bank Gold Agreement of 26 September 1999. Each of the Eurosystem central banks is a party to this agreement, which stipulates that the signatories will not increase their activity in

gold lending and gold futures and option markets.

The NCBs manage the ECB's foreign reserves in accordance with ECB guidelines and instructions. In addition, they manage their own foreign reserves as they see fit. Their operations in foreign currencies are subject, above certain limits, to ECB notification or approval, in order to ensure consistency with the monetary policy of the ECB.

As regards both the ECB's and the NCBs' foreign reserves, data on international reserves and foreign currency liquidity are published monthly on the ECB's website (www.ecb.int), with a one-month lag, in line with the IMF's Special Data Dissemination Standard. This publication complements the information provided by the consolidated weekly financial statement of the Eurosystem.

2.3 Developments in the Eurosystem's approach to foreign reserve management

The aim behind the management of the ECB's foreign reserves is to ensure that, at any given point in time, the ECB has an adequate amount of liquid resources at its disposal for any foreign exchange intervention, if and when the Governing Council decides that this is necessary. Liquidity and security are therefore the basic requirements for the investment of the ECB's foreign reserves. Subject to these constraints, the ECB's foreign reserves are managed in such a way as to maximise their value.

The ECB's foreign reserves are managed in a decentralised manner by the euro area NCBs on the basis of investment guidelines, a strategic benchmark approved by the Governing Council of the ECB and a tactical benchmark determined by the Executive Board of the ECB. In addition to the currency

distribution, the ECB defines four key parameters for the investment of its foreign reserves: first, a two-level investment benchmark (i.e. a strategic benchmark and a tactical benchmark) for each currency; second, permitted deviations from these benchmarks in terms of the interest rate risk; third, a list of eligible instruments and operations; and, fourth, limits for credit risk exposures (see Chapter III). NCBs then use the leeway given to them by the deviation bands and risk limits to maximise the return on their portfolios relative to the benchmark, subject to continuous monitoring by the ECB. When conducting the ECB's investment activity, NCBs act on behalf of the ECB on a disclosed agency basis, so that the ECB's counterparties can distinguish the operations carried out by the NCBs on behalf of the ECB from those carried out by the NCBs for their own account.

Since its launch, this framework has functioned satisfactorily, and work is continuously undertaken with a view to enhancing portfolio and risk management techniques. In line with the gradual extension of the range of investment instruments and to improve the efficiency with which positions are taken, the use of money market and bond futures for managing the foreign exchange reserves is scheduled for the first quarter of 2002. In addition, the ECB has further diversified its fixed income investments towards high quality non-sovereign issuers with the aim of improving the risk/return profile of the portfolios.

Finally, the ongoing development of the risk management framework (see Chapter III), and changes to the IT system (with the introduction of a new version of the portfolio management system) and to the legal documentation (with, inter alia, the introduction of the European Master Agreement), contributed to an enhancement of the overall management of the ECB's foreign reserves.

3 The ECB's own funds management

The principal purpose of the ECB's capital is to act as a reserve fund, providing it with sufficient income while maintaining an appropriate level of security. The ECB was endowed with an initial capital of approximately €4,000 million. In 2001 there were two notable additions to the ECB's own funds. First, Greece contributed its share to the ECB's capital upon joining the euro area at the beginning of the year and second, a proportion of the ECB's total operating profit for 2000 was transferred to the general reserve fund.

The decision-making bodies of the ECB determine four key parameters for the investment of its own funds in the European bond markets: first, a strategic investment benchmark; second, a permitted deviation from this benchmark in terms of the interest rate risk; third, a list of eligible instruments and operations; and, fourth, limits for credit risk exposures. The ECB then uses the scope provided by the deviation bands and risk limits to maximise the return on the own funds portfolio.

In view of the purpose of the ECB's own funds and the key parameters outlined above, the own funds are mainly invested in euro area government bonds and some other highly rated collateralised bonds. Certain euro area bond derivatives and direct securities lending transactions have also been eligible instruments since 1999. As part of

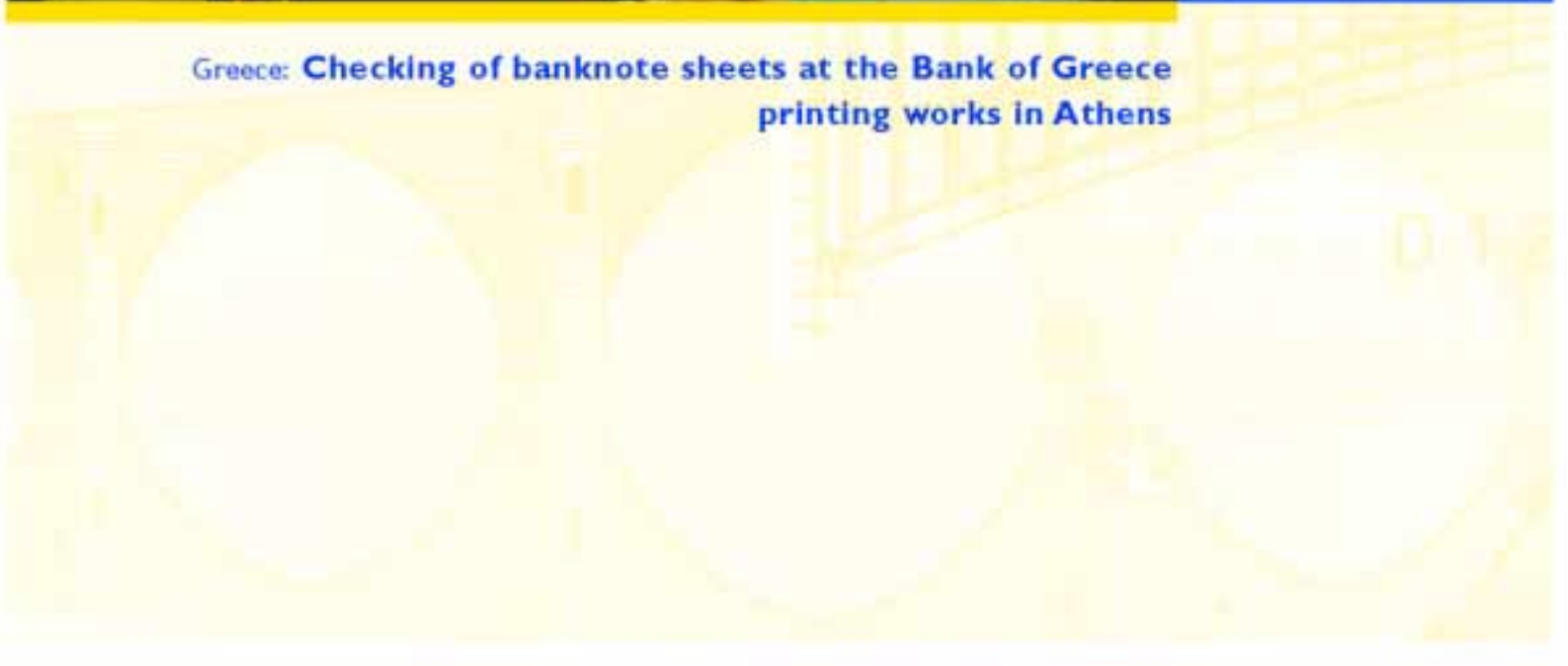
the gradual extension of the range of permissible investment instruments, an automatic securities lending programme for own funds was implemented in February 2001.

There is also a list of eligible counterparties for the investment of the ECB's own funds. This list, while prepared separately from those corresponding to the management of the ECB's foreign reserve assets, meets the same criteria concerning prudence and efficiency. The relevant legal documentation including the recently introduced European Master Agreement corresponds to that used in connection with the management of the foreign reserves.

Since the ECB's own funds are currently invested exclusively in euro-denominated assets, it is of the utmost importance that any interference with the ECB's monetary policy decisions be prevented. In order to prevent the misuse of privileged information in the management of the ECB's own funds and to protect the ECB's reputation, a "Chinese wall" is in place, i.e. a strict functional and physical separation between the unit managing the own funds and the other units of the ECB. In addition, the ECB manages its own funds on a relatively passive basis, especially in the money market, in order to avoid generating any signals which could be misconstrued as being monetary policy-related.



Greece: **Checking of banknote sheets at the Bank of Greece printing works in Athens**



Chapter III

Risk management

The risk management function of the ECB manages and monitors financial risks incurred by the ECB directly or by the 12 NCBs of the Eurosystem on behalf of the ECB. Risk management at the ECB has two main areas, namely policy operations and investment operations. The former focuses on the risk issues associated with the Eurosystem's monetary policy operations, including payment system operations (principally through the provision of intraday liquidity via the TARGET system). The latter focuses on foreign reserve assets and the management of the ECB's own capital.

I Policy operations

In the conduct of its monetary policy and payment system credit operations, the Eurosystem incurs a risk when entering into a transaction with a counterparty that may be unable to meet its credit obligations. This credit risk is mitigated by the use of collateral. The use of adequate collateral. The use of adequate collateral is required in all Eurosystem credit operations by Article 18.1 of the Statute of the ESCB.

To protect the Eurosystem from incurring losses as well as to ensure the equal treatment of counterparties and enhance operational efficiency, assets have to fulfil certain common criteria in order to be eligible as collateral for Eurosystem credit operations. The criteria are laid down in the collateral framework.

Owing to the differences in financial structure across Member States and for purposes internal to the Eurosystem, a distinction is made between two categories of assets eligible for Eurosystem credit operations. These two categories are referred to as "tier one" and "tier two". Tier one consists of marketable debt instruments which fulfil uniform euro area-wide eligibility criteria specified by the ECB. Tier two consists of additional assets (marketable and non-marketable) which are of particular importance to national financial markets and banking systems. The eligibility criteria applied to these assets by the respective NCBs are subject to approval by the ECB. No distinction is made between the two tiers with regard to the quality of the assets or their eligibility for the various types of

Eurosystem credit operations, except that tier two assets are not normally used by the Eurosystem in outright transactions.

1.1 Risk control framework

Tier one and tier two assets are both subject to risk control measures. These are applied to the assets underlying Eurosystem credit operations in order to protect the Eurosystem against the risk of financial loss if underlying assets have to be realised owing to the default of a counterparty. This means that the Eurosystem uses the collateral to recover the liquidity provided. It is in such a situation that it incurs market and liquidity risks associated with the collateral. The risk control measures at the disposal of the Eurosystem in 2001 were initial margins, valuation haircuts, variation margins, limits in relation to issuers/debtors or guarantors, and additional guarantees.

Risk controls

To obtain an adequate level of risk control, the Eurosystem evaluates in line with best market practices parameters such as current and potential price developments and related price volatilities. Value at Risk (VaR) measures are used to estimate the valuation haircuts needed to reflect the maximum loss of market value which, assuming historical conditions, could be generated by the collateral with a given level of statistical confidence over a given period of time.

Additional measures used to calibrate the valuation haircuts include back testing and stress testing.

In addition to the initial margins applied to the credit amount, the Eurosystem applies the valuation haircuts according to asset type, residual maturity and coupon structure. The haircuts are applied by deducting a certain percentage from the market value of the asset. Three haircut groups were used in 2001 for tier one assets: fixed rate, floating rate and inverse floating rate instruments.

The valuation haircuts applied to tier two assets reflect the specific risks associated with these assets and are at least as stringent as the haircuts applied to tier one assets. Initial margins and margin calls are applied to tier two assets in a similar fashion as to tier one assets. Four different haircut groups were used in 2001 for tier two assets, reflecting differences in their intrinsic characteristics and liquidity: equities, marketable debt instruments with limited liquidity, debt instruments with restricted liquidity and special features, and non-marketable debt instruments.

The assets are subject to a daily valuation and NCBs calculate on a daily basis the required value of underlying assets taking into account the valuation principles outlined by the Eurosystem. Symmetric margin calls are made whenever the underlying assets do not match the collateral requirements. Margin calls can be met either by supplying additional assets or by means of cash payments.

Valuation principles

A set of principles is employed to determine the value of underlying assets in Eurosystem credit operations. For marketable tier one or tier two assets, the Eurosystem specifies a single reference market to be used as the price source, following a marked-to-market

approach. It defines the most representative price on the reference market, which is then used for the calculation of market values. If more than one price is quoted, the lowest of these prices (normally the bid price) is used. For non-marketable tier two assets or for those marketable assets that do not normally trade, so that mark to market is not possible, the Eurosystem generally applies a mark-to-model strategy based on present-value discounting of future cash flows. The discounting is based on an appropriate zero-coupon curve, and differences in credit risk between issuers are explicitly taken into account through credit spreads. The level of the applicable credit spread strongly depends on national market characteristics and is therefore proposed by the NCB after analysing the available market data. The credit spreads are ultimately subject to approval by the ECB.

1.2 Credit risk assessment

Assets used as collateral in Eurosystem credit operations must meet high credit standards. In the assessment of the standard of debt instruments, the ECB takes into account, inter alia, available market agency ratings and the NCBs' own credit assessment systems, as well as certain institutional criteria which would ensure particularly high protection of the holders, including guarantees. The Eurosystem does not accept as underlying assets debt instruments issued or guaranteed by the counterparty, or by any other entity with which the counterparty has close links.

The credit quality of the eligible assets is constantly monitored to check that it is equivalent to at least the minimum level of financial soundness specified by the Eurosystem. The ECB monitors the assessment provided by NCBs' credit assessment systems and from time to time by national rating companies which rate national tier two assets.

2 Investment operations

At the end of 2001, the ECB had a reserve portfolio totalling €46.8 billion, which comprised foreign currency reserves, gold and special drawing rights (SDRs).

The foreign currency reserves are denominated in US dollars and Japanese yen and are managed on behalf of the ECB by the NCBs. This reserve portfolio is first and foremost an intervention portfolio.

In addition to the actively managed investments, the ECB also holds gold.

The ECB's own capital is denominated in euro and managed by a separate portfolio management team at the ECB. These investments, known as the ECB's "own funds", are designated for generating a return to fund the running costs of the ECB.

The ECB's financial health and reputation are dependent on the appropriate management of the investment portfolio. A key component in the management of these investments is the correct risk management structure.

The risk management framework

The framework for managing the risks associated with the ECB's investment portfolio has three closely interlinked components:

- the establishment of an analytical framework to determine the appropriate asset allocation for the foreign currency reserves and the investment reserves. In concrete terms, this specifies the currency distribution of the reserve portfolios and the strategic benchmarks for each portfolio;
- the analysis of investment performance;
- the establishment of appropriate risk management and compliance measures.

Asset allocation

This process determines the optimal currency distribution for the foreign currency reserves and the optimal asset allocation for each currency portfolio.

In assessing the currency distribution, the two major considerations are liquidity and diversification. The actual asset allocation for each portfolio results in the establishment of the strategic investment benchmarks for each portfolio.

The strategic benchmarks are designed to indicate and implement the long term risk-return preferences of the ECB. They give portfolio managers in the Eurosystem clear indications of the levels of market, credit and liquidity risk that the ECB desires. The benchmarks are crucial to the performance of the ECB as they are the main determinants of the returns earned.

The goal of asset allocation is to achieve maximum returns under the constraints within which the ECB operates. The strategic benchmarks are reviewed on an annual basis. For the 2001 review, new methodologies were developed for estimating expected returns for each asset class and these scenarios of expected returns were incorporated into the various optimisation exercises conducted prior to the benchmark construction. In addition, the yield curve for each asset class was stress-tested to assess the resilience of possible future asset allocations to external shocks.

This approach to asset allocation is indicative of the proactive approach to the management of risk at the ECB.

Analysis of investment performance

Quarterly, semi-annual and annual analyses of investment performance and risk are presented to the Governing Council and the

Executive Board of the ECB, as well as portfolio managers and senior decision-makers at the ECB and in the Eurosystem. Performance and risk are measured in compliance with the Association of Investment Management and Research (AIMR) recommendations. Investment performance is also analysed to identify the sources of performance. In 2001 special attention was paid to an examination of the liquidity constraints implied by managing an intervention portfolio. All markets or instruments in which the ECB invests must meet pre-set liquidity criteria approved by the Executive Board. These requirements imply a definition of liquidity that should be met even in stress situations. Clearly, the most stringent liquidity requirements are for the foreign currency reserves. It is important for the ECB to know the impact of these demanding liquidity criteria. Its investments are therefore compared against theoretical efficient frontiers so as to measure the cost in terms of return foregone resulting from its definition of liquidity.

Establishment of appropriate risk management measures and compliance

Risk management and compliance measures are in place to measure and manage market, credit and liquidity risk. Duration is the primary measure of market risk used. However, relative market risk measures such

as Value at Risk and tracking error are also monitored. Tracking error is a particularly useful measure, as it provides one figure reflecting the market risk that portfolio managers take regardless of its origin (spread risk, yield curve risk and shift risk are all subsumed into this figure). Considerable resources have also been devoted to the decomposition of market risk into risk sources. This type of information helps develop a deeper understanding of the composition of the returns.

The ECB's prudent stance towards risk is reflected in its investment decisions, in which considerable emphasis is placed on high creditworthiness and liquidity. To be eligible for participation in foreign reserve management operations, counterparties must meet minimum rating criteria and satisfy certain operational requirements. Minimum rating levels are set for the counterparties depending on the nature of the transaction being conducted and its inherent credit risk. Analysis of the credit status of counterparties is carried out to supplement agency credit ratings using a multivariate statistical technique developed by the Risk Management Division. Credit limits are determined for counterparties and distributed among the NCBs according to the proportion of total funds that they manage on behalf of the ECB. All trading relationships with approved counterparties are supported by the appropriate legal documentation.

3 Future developments for 2002

In 2002 efforts to improve the risk management framework of the ECB will continue.

Eurosystem credit operations: new developments will include the incorporation of an enhanced treatment of liquidity risk. Additionally, analysis will be devoted to the impact of the Basel proposal on Capital Adequacy on the collateral framework. Interesting work lies ahead of the ECB on the possibility of increasing the sources of

credit risk information to assess the financial soundness of Eurosystem collateral.

In investment operations the focus will be on two main areas. First, performance attribution will be enhanced so as to increase the precision with which performance can be attributed to market factors. This will enrich the current ex post analysis of performance in order to provide decision-makers with improved information for future investment decisions. Second, an IT platform will be

implemented so as to link all the current applications used for risk management. This platform will facilitate the integration of credit and market reports and analysis. The combined analysis will provide more opportunities for the risk management function to add value to the decision-making process.

Ultimately, these initiatives will ensure that the ECB achieves the maximum return

available while fully observing the constraints within which it operates. The proper management of its financial risks ensures the financial independence and strength of the ECB. This in turn enhances the ECB's reputation and institutional independence, which ultimately allow it to fulfil its primary objective of maintaining price stability. In this context, the importance of managing risk efficiently and appropriately is clear.



Belgium: (right) **Luc Luycx** of the **Royal Belgian Mint** in **Brussels**,
designer of the common side of the euro coins
(left) **A €2 coin** and the **plaster model** on which it was based

Chapter IV

Economic developments in the other countries of the European Union

The Eurosystem and the NCBs of the non-participating EU countries co-operate closely in the context of the General Council of the ECB, with a view to contributing to the maintenance of price stability in the EU as a whole. A regular review of macroeconomic conditions as well as monetary and exchange rate policies is an integral part of the co-ordination exercise between the Eurosystem and the three NCBs currently not participating in the single monetary policy. Although these NCBs conduct their monetary policies within different institutional and operational frameworks, the ultimate goal of monetary policy for all of them is to maintain price stability.

Denmark

The Danish economy slowed in 2001, with real GDP growing by a moderate 1.2% in

2001, down from 3.0% in 2000 (see Table 11). This apparently sharp slowdown includes the effect of a hurricane in December 1999, which boosted activity in 2000. The fact that this temporary increase in activity faded may alone have accounted for up to 1.5 percentage points of the fall in growth between that year and 2001. Export growth declined from 11.5% in 2000 to 3.4% in 2001. Import growth also declined, however, and the contribution of net exports to real GDP growth remained both positive and significant in 2001. This continued export growth reflects the fact that wind turbine exports soared while the demand for pharmaceuticals and pork exports remained relatively insensitive to economic fluctuations. Pork exports benefited temporarily from the outbreak of foot-and-mouth disease in the United Kingdom. Consumer confidence increased slightly, while private consumption grew modestly, by 1.1%, and public

Table 11
Macroeconomic indicators for Denmark

(annual percentage changes, unless otherwise indicated)

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 |
|--|------|------|------|------|------|------|------------|------------|------------|------------|
| Real GDP | 2.5 | 3.0 | 2.5 | 2.3 | 3.0 | 1.2 | 2.0 | 0.9 | 1.2 | 0.7 |
| <i>Contribution to real GDP growth:¹⁾</i> | | | | | | | | | | |
| Real domestic demand including stocks | 2.1 | 4.6 | 3.9 | -0.5 | 2.5 | 0.8 | -0.2 | 0.5 | 1.2 | 1.4 |
| Net exports | 0.4 | -1.7 | -1.4 | 2.8 | 0.6 | 0.5 | 2.3 | 0.4 | -0.0 | -0.7 |
| HICP | 2.1 | 1.9 | 1.3 | 2.1 | 2.7 | 2.3 | 2.3 | 2.5 | 2.3 | 2.0 |
| Compensation per employee | 3.3 | 3.5 | 3.7 | 3.1 | 3.8 | 4.2 | 4.3 | 3.8 | 4.3 | 4.4 |
| Unit labour costs, whole economy | 2.1 | 1.9 | 3.0 | 2.2 | 1.5 | 3.5 | 2.6 | 3.5 | 3.7 | 4.2 |
| Import deflator (goods and services) | -0.1 | 2.2 | -2.5 | -0.3 | 9.8 | 2.8 | 6.9 | 5.8 | 1.4 | -2.3 |
| Current plus new capital account (% of GDP) | . | 0.1 | -0.1 | 0.2 | 0.2 | 0.4 | 0.7 | 0.4 | 0.5 | 0.1 |
| Total employment | 0.6 | 1.2 | 1.7 | 1.5 | 0.7 | 0.2 | 0.3 | 0.4 | 0.3 | 0.0 |
| Unemployment rate (% of labour force) | 6.3 | 5.3 | 4.9 | 4.8 | 4.4 | 4.3 | 4.4 | 4.4 | 4.3 | 4.2 |
| Fiscal balance (% of GDP) ^{2),3)} | -1.0 | 0.4 | 1.1 | 3.1 | 2.5 | 2.5 | . | . | . | . |
| Consolidated gross debt (% of GDP) ²⁾ | 65.1 | 61.2 | 55.6 | 52.0 | 46.8 | 44.5 | . | . | . | . |
| Three-month interest rate (% per annum) ⁴⁾ | 3.9 | 3.7 | 4.1 | 3.3 | 4.9 | 4.6 | 5.2 | 5.0 | 4.6 | 3.7 |
| Ten-year government bond yield (% per annum) ⁴⁾ | 7.2 | 6.3 | 4.9 | 4.9 | 5.6 | 5.1 | 5.0 | 5.3 | 5.2 | 4.8 |
| Exchange rate against the ECU or euro ^{4),5)} | 7.36 | 7.48 | 7.50 | 7.44 | 7.45 | 7.45 | 7.46 | 7.46 | 7.44 | 7.44 |

Sources: Eurostat, European Commission, national data and ECB calculations.

Note: National accounts are according to the ESA 95. HICP data before 1995 are estimates based on national definitions and are not fully comparable with HICPs starting in 1995.

1) Percentage points.

2) Consistent with the Maastricht Treaty definition.

3) General government surplus (+) / deficit (-).

4) Average of period values.

5) Units of national currency per ECU until the end of 1998; thereafter, per euro.

consumption grew by 1.4% in 2001. Together, these latter components were not sufficient to offset a fall in investment, which in materials and construction reverted to levels similar to those in 1999. The contribution of domestic demand, including stocks, to real GDP growth declined from 2.5% in 2000 to 0.8% in 2001. The Danish labour market continued to be relatively tight, with the unemployment rate falling to a low of 4.3%.

Despite the tight labour market and high energy prices, price developments in Denmark remained broadly contained in 2001. The rate of increase in the HICP remained relatively stable throughout the year, the annual average falling to 2.3% from 2.7% in 2000. Wages continued to grow at a faster rate than in the euro area, mostly on account of a fall in working hours as holiday entitlement increased, although public sector wage acceleration was high. Compensation per employee rose by a modest 4.2% and unit labour costs by 3.5% in 2001. Both figures remain above those for the euro area.

Denmark's public finances remained sound in 2001. The general government surplus remained at 2.5% of GDP in 2001 (excluding UMTS proceeds), as in the previous year. Government debt continued to decline. The debt level fell from 46.8% of GDP to 44.5%. The updated Danish Convergence Programme targets budgetary surpluses of 1.9% and 2.1% of GDP in 2002 and 2003 respectively. These balances are lower than those envisaged in the previous update of the Convergence Programme. The difference can mainly be explained by the proposed reorganisation of the Special Pension Savings Scheme, which is no longer included in the government sector. The gross debt ratio is only moderately affected by this reform and is projected to fall to 42.9% of GDP in 2002 and 40.1% in 2003.

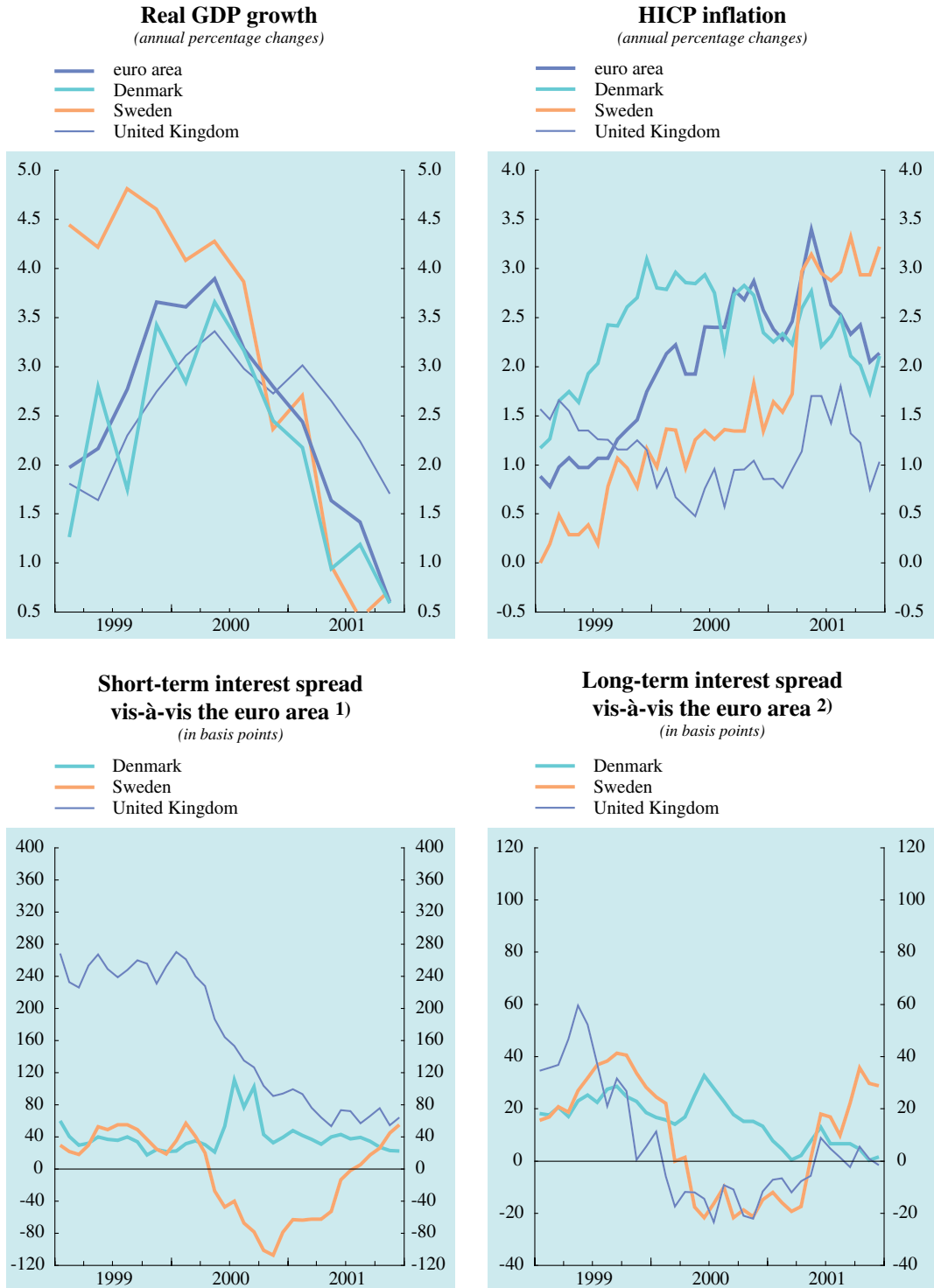
Following the referendum on the adoption of the euro on 28 September 2000, Denmark continued to pursue a fixed exchange rate

policy vis-à-vis the euro, maintaining a narrow band of $\pm 2.25\%$ for the krone around its ERM II central rate against the euro. Given this policy, developments in key official and short-term market interest rates should primarily be seen against the background of the ECB's interest rate decisions and developments in the exchange rate of the krone against the euro. The krone remained stable in 2001 (see Chart 28), holding a level marginally stronger than its central rate of DKK 7.46038 for most of the year. Danmarks Nationalbank intervened in the markets in late September, purchasing foreign exchange to dampen an appreciation in the krone. The krone had strengthened as a result of some pension funds readjusting their portfolios, shifting out of foreign equities and into domestic bonds to protect their reserves against a further decline in international stock prices.

In 2001 a series of five cuts in the lending rate of Danmarks Nationalbank between July and November reduced its spread over the marginal interest rate on the ECB's main refinancing operations to 35 basis points (see Chart 27). This is similar to the spread prevailing before the referendum in September 2000. Besides two smaller reductions of 0.05 percentage point each, Danmarks Nationalbank decreased the lending rate by 0.3 percentage point on 30 August and by 0.5 percentage point on 18 September, in line with the ECB's decisions to lower key interest rates. On 8 November, the lending rate was again reduced by 0.5 percentage point, in line with the key ECB interest rate reduction of the same magnitude, to 3.6%. In early February 2002 the lending rate was further reduced to 3.55%. Developments in long-term interest rates in 2001 broadly mirrored those in the euro area. The spread between Danish and euro area long-term bond yields declined to almost nil in early 2001, subsequently remaining slightly positive for the rest of the year.

Chart 27

Economic and financial indicators for the non-euro area EU countries and the euro area



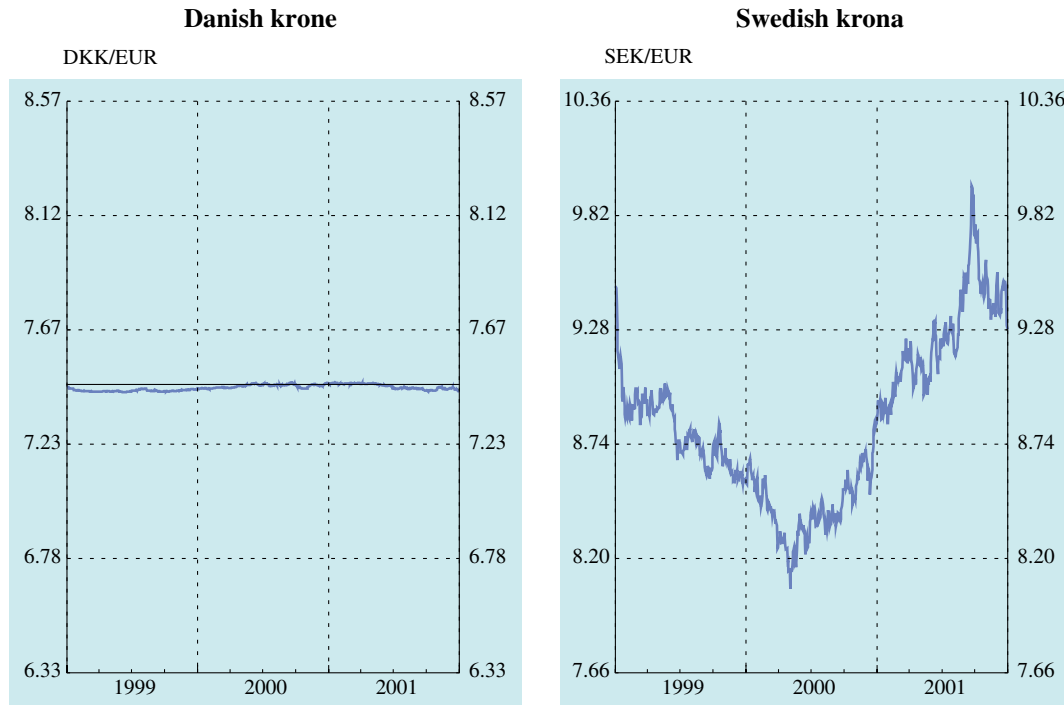
Sources: ECB and Eurostat.

1) For the non-euro area countries: three-month interbank rates; for the euro area: three-month EURIBOR.

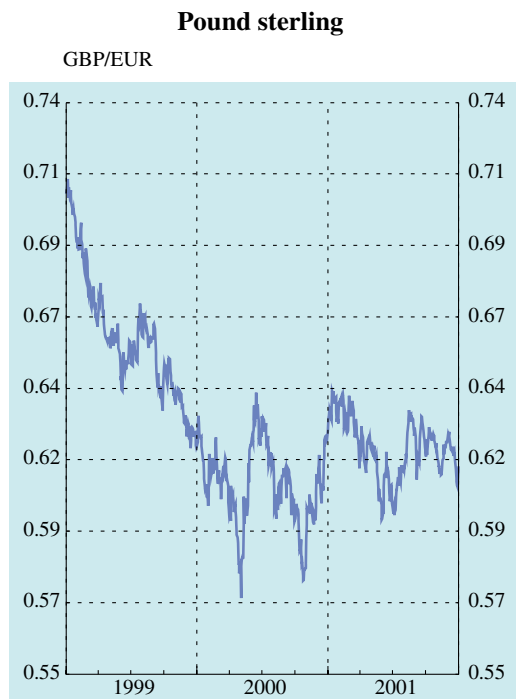
2) Long-term government bond yields, 10-year bonds or closest available bond maturity.

Chart 28

Bilateral exchange rates of non-euro area EU currencies versus the euro



Central rate against the euro announced on 31 December 1998: 7.46038.



Source: National data.

Note: Charts for Denmark, Sweden and the United Kingdom have a fluctuation range of 30%.

Sweden

The Swedish economy slowed down significantly in 2001 (see Chart 27). Real GDP grew by 1.2%, compared with 3.6% in 2000 (see Table 12). The international slowdown affected the Swedish export industry markedly, reflecting the relatively high exposure of the Swedish economy to developments in the United States and the telecommunications industry. Export growth declined to 1.4% in 2001, down from 10.3% in 2000. Investment growth also decelerated markedly due to the decline in demand and resource utilisation. Partly due to heavy stock market declines that reduced both household wealth and consumer confidence, private consumption was also particularly affected, growing by 0.2% compared with 4.6% in 2000. Real disposable income continued to develop favourably, largely due to tax cuts. This mainly resulted in an improvement in the savings ratio, however, rather than supporting consumer expenditure. Import growth also decelerated, and the contribution to real GDP growth from net exports rose to 1.0 percentage point. The contribution from domestic demand was 0.7 percentage point. The rapid slowdown in economic activity has so far not had major repercussions on the labour market, and the unemployment rate remained relatively stable at around 5%, with continued growth in private service sector employment.

Annual inflation rates, as measured by the HICP, the CPI and UNDIX¹, rose rapidly in the spring of 2001 to around 3%, which was similar to the situation in the euro area (see Chart 27). Throughout the rest of the year, inflation rates remained around 3%. Annual average HICP inflation was 2.7%, up from 1.3% in 2000, while the CPI rose to 2.6% from 1.3% in 2000. The rise in inflation stemmed mainly from developments in items such as meat, domestic fruit and vegetables, electricity and telephone charges. These price components were affected by various temporary supply shocks such as the effects of foot-and-mouth disease and BSE in the food industry, and weather conditions. For

the remaining domestic price components the rise was more gradual and general, and was largely explained by the indirect effects of previous oil price hikes, the rapid increase in resource utilisation in recent years, as reflected in rising unit labour costs, and, in markets with weak competition, increased profits. Unit labour costs rose by 4.5% compared with 5.7% in 2000, largely due to the cyclical deceleration in labour productivity, implying a risk to the employment and inflation outlook. However, monthly wage statistics show lower growth rates, including for unit labour costs. Imported inflation moderated in 2001, despite the weakening of the krona, reflecting the decrease in oil prices.

The Swedish general government fiscal surplus increased from 3.7% of GDP in 2000 to 4.7% of GDP in 2001. Tax cuts of approximately 1% of GDP were offset by one-off revenues, among other things. Despite these tax cuts, the Swedish tax ratio remains high relative to those observed in other industrialised countries. The debt-to-GDP ratio increased slightly from 55.3% in 2000 to 56% in 2001. The updated Swedish Convergence Programme targets budget surpluses of 2.1% and 2.2% of GDP in 2002 and 2003 respectively. This reduction of the budget surplus results to a large extent from the phasing-in of the income tax reform that started in 2000. The debt-to-GDP ratio is projected to fall to 49.7% in 2002 and 47.3% in 2003.

Since 1993 Sveriges Riksbank has operated under a flexible exchange rate regime with the objective of monetary policy expressed as an explicit inflation target. Since 1995 the inflation target has been quantified as a 2% increase in the CPI with a tolerance margin of ± 1 percentage point. In June 2001 the central bank intervened in the currency

¹ UNDIX is defined as the CPI excluding interest expenditure and direct effects of altered indirect taxes and subsidies. In Sweden, headline CPI is the target variable of monetary policy. However, when in recent years transient factors have had an impact on the forecast, monetary policy decisions have been based on an assessment of UNDIX.

Table 12**Macroeconomic indicators for Sweden***(annual percentage changes, unless otherwise indicated)*

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 |
|--|------|------|------|------|------|------|------------|------------|------------|------------|
| Real GDP | 1.1 | 2.1 | 3.6 | 4.5 | 3.6 | 1.2 | 2.7 | 1.0 | 0.4 | 0.7 |
| <i>Contribution to real GDP growth:¹⁾</i> | | | | | | | | | | |
| Real domestic demand including stocks | 0.7 | 0.7 | 3.9 | 3.2 | 3.2 | 0.2 | 2.3 | -0.2 | -2.0 | 0.7 |
| Net exports | 0.4 | 1.4 | -0.3 | 1.3 | 0.4 | 1.0 | 0.4 | 1.2 | 2.4 | 0.1 |
| HICP | 0.8 | 1.8 | 1.0 | 0.6 | 1.3 | 2.7 | 1.6 | 3.0 | 3.1 | 3.0 |
| Compensation per employee | 6.8 | 3.8 | 3.3 | 1.3 | 7.3 | 3.8 | 2.8 | 4.7 | 3.3 | 4.2 |
| Unit labour costs, whole economy | 5.1 | 0.7 | 0.9 | -0.9 | 5.7 | 4.5 | 2.9 | 5.5 | 4.9 | 4.5 |
| Import deflator (goods and services) | -4.2 | 0.7 | -0.5 | 1.0 | 4.6 | 4.3 | 4.4 | 6.5 | 4.8 | 1.5 |
| Current plus new capital account (% of GDP) | . | . | 0.7 | 0.5 | 0.7 | 0.6 | 0.7 | 0.5 | 0.8 | 0.5 |
| Total employment | -0.6 | -1.1 | 1.5 | 2.2 | 2.2 | 2.0 | 3.2 | 2.0 | 2.1 | 0.7 |
| Unemployment rate (% of labour force) | 9.6 | 9.9 | 8.3 | 7.2 | 5.9 | 5.1 | 5.3 | 5.0 | 4.9 | 5.1 |
| Fiscal balance (% of GDP) ^{2),3)} | -3.4 | -1.5 | 1.9 | 1.8 | 3.7 | 4.7 | . | . | . | . |
| Consolidated gross debt (% of GDP) ²⁾ | 76.0 | 73.1 | 70.5 | 65.0 | 55.3 | 56.0 | . | . | . | . |
| Three-month interest rate (% per annum) ⁴⁾ | 6.0 | 4.4 | 4.4 | 3.3 | 4.1 | 4.1 | 4.1 | 4.2 | 4.3 | 3.9 |
| Ten-year government bond yield (% per annum) ⁴⁾ | 8.0 | 6.6 | 5.0 | 5.0 | 5.4 | 5.1 | 4.8 | 5.2 | 5.3 | 5.1 |
| Exchange rate against the ECU or euro ^{4),5)} | 8.51 | 8.65 | 8.91 | 8.81 | 8.45 | 9.25 | 9.00 | 9.12 | 9.41 | 9.48 |

Sources: Eurostat, European Commission, national data and ECB calculations.

Note: National accounts are according to the ESA 95.

1) Percentage points.

2) Consistent with the Maastricht Treaty definition.

3) General government surplus (+) / deficit (-).

4) Average of period values.

5) Units of national currency per ECU until the end of 1998; thereafter, per euro.

market against the background of a marked depreciation in the krona. Combined with the effects of relatively high resource utilisation and unexpectedly rapid price increases which could have affected inflation expectations, Sveriges Riksbank took the view that there was a risk of the inflation target being exceeded. It consequently increased the repo rate on 5 July by 0.25 percentage point to 4.25%. Following the terrorist attacks in the United States and a more accentuated international slowdown early in the autumn, Sveriges Riksbank then lowered the repo rate on 17 September by 0.5 percentage point owing to an increased risk that projected inflation would be below the target.

Reflecting these changes in the official interest rate, short-term market interest rates in Sweden moved above comparable euro area rates in mid-2001, with the spread standing at around 50 basis points at the end of the year (see Chart 27). Long-term interest rates

tracked developments on the international capital markets with no clear direction for most of the year, and the differential with the euro area had moved from around -10 to around 40 basis points by the end of 2001. This was probably related to an increased exchange rate premium in the wake of the krona's depreciation and greater international uncertainty. The krona depreciated by nearly 11% against the euro up to September before recovering at the end of the year and in early 2002 (see Chart 28).

United Kingdom

Average real GDP growth in the United Kingdom slowed to 2.4%, compared with 3.0% in 2000, as external weakness was only partly offset by strong domestic demand (see Table 13). The gradual slowdown stemmed mainly from a contraction in high-tech industries, especially in optical and electronic

Table 13**Macroeconomic indicators for the United Kingdom***(annual percentage changes, unless otherwise indicated)*

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 |
|--|------|------|------|------|------|------|------------|------------|------------|------------|
| Real GDP | 2.6 | 3.4 | 3.0 | 2.1 | 3.0 | 2.4 | 3.0 | 2.7 | 2.2 | 1.7 |
| <i>Contribution to real GDP growth:¹⁾</i> | | | | | | | | | | |
| Real domestic demand including stocks | 3.1 | 4.0 | 5.2 | 3.5 | 3.8 | 3.3 | 4.3 | 3.4 | 2.7 | 2.5 |
| Net exports | -0.4 | -0.5 | -2.2 | -1.4 | -0.7 | -0.8 | -1.3 | -0.8 | -0.5 | -0.7 |
| HICP | 2.5 | 1.8 | 1.6 | 1.3 | 0.8 | 1.2 | 0.9 | 1.5 | 1.5 | 1.0 |
| Compensation per employee | 3.3 | 4.3 | 5.1 | 4.7 | 4.1 | . | 5.7 | 5.1 | 5.2 | . |
| Unit labour costs, whole economy | 1.8 | 2.8 | 3.2 | 3.8 | 2.1 | . | 3.6 | 3.3 | 3.5 | . |
| Import deflator (goods and services) | 0.2 | -7.1 | -6.2 | -2.5 | 0.5 | -0.1 | 0.5 | 2.1 | -0.2 | -2.8 |
| Current plus new capital account (% of GDP) | -2.4 | -0.3 | -1.6 | -6.9 | -6.2 | . | -3.9 | -4.1 | -4.3 | . |
| Total employment | 1.1 | 2.0 | 1.1 | 1.3 | 1.0 | 0.8 | 1.0 | 0.9 | 0.6 | 0.7 |
| Unemployment rate (% of labour force) | 8.0 | 6.9 | 6.2 | 5.9 | 5.4 | . | 5.0 | 4.9 | 5.0 | . |
| Fiscal balance (% of GDP) ^{2),3)} | -4.4 | -2.0 | 0.4 | 1.3 | 1.8 | 0.9 | . | . | . | . |
| Consolidated gross debt (% of GDP) ²⁾ | 52.3 | 50.8 | 47.6 | 45.2 | 42.4 | 39.0 | . | . | . | . |
| Three-month interest rate (% per annum) ⁴⁾ | 6.0 | 6.8 | 7.3 | 5.4 | 6.1 | 5.0 | 5.6 | 5.2 | 4.9 | 4.1 |
| Ten-year government bond yield (% per annum) ⁵⁾ | 7.9 | 7.1 | 5.6 | 5.0 | 5.3 | 5.0 | 4.9 | 5.2 | 5.1 | 4.8 |
| Exchange rate against the ECU or euro ⁶⁾ | 0.81 | 0.69 | 0.68 | 0.66 | 0.61 | 0.62 | 0.63 | 0.61 | 0.62 | 0.62 |

Sources: Eurostat, European Commission, national data and ECB calculations.

Note: National accounts are according to the ESA 95. HICP data before 1995 are estimates based on national definitions and are not fully comparable with HICPs starting in 1995.

1) Percentage points.

2) Calendar year estimates. Consistent with the Maastricht Treaty definition.

3) Calendar year estimates. General government surplus (+) / deficit (-).

4) Average of period values. 3-month sterling interbank deposits.

5) Average of period values. Source: BIS.

6) Average of period values. Units of national currency per ECU until the end of 1998; thereafter, per euro.

equipment, faltering foreign demand and the persistent strength of the pound sterling. This was also reflected in a greater divergence between various sectors of the economy, a larger current account deficit and a lower savings ratio. In particular, output in the manufacturing sector recorded a decline of 2.3% after an increase of 1.9% in 2000, whereas growth of value added in the services sector remained strong at 4.0%, compared with 3.8% in 2000.

Real household consumption grew by 4.2% in 2001, marginally above the rate of 4.1% in the preceding year. Increased real earnings, rises in household wealth and vigorous credit expansion were the main driving factors. The strength of the housing market was linked to low real interest rates and increased competition in the mortgage market following earlier financial deregulation. Output growth

was also supported by an acceleration in public consumption from 1.9% in 2000 to 2.4% in 2001, reflecting progress towards government spending targets. Gross fixed capital formation grew by 1.1%, down from 4.9% in 2000. Business investment was hampered by a worsening financial position of the corporate sector and increased uncertainty about demand prospects. This latter factor also induced companies to run down their inventory levels, reducing real GDP growth by 0.1 percentage point. The weakness in business investment was partly compensated by an acceleration in government investment, reflecting plans to upgrade the public sector's capital stock. The contribution of domestic demand to real GDP growth was 3.3 percentage points, somewhat lower than in 2000. For the sixth year in a row, foreign trade made a negative contribution, with export growth falling from

10.3% in 2000 to 0.8% in 2001. Import growth also fell, but less strongly than exports due to the continued strength of domestic demand and to the relatively strong value of sterling with respect to the euro. Total employment expanded at an annual rate of 0.8%, somewhat below the increase in 2000, reducing the unemployment rate from 5.4% in 2000 to around 5% in 2001. In the second half of the year, however, the labour market showed some signs of weakening, as the unemployment rate increased slightly and skills shortages were reported to have eased somewhat. In general, however, unemployment remained stable and lower than predicted.

RPIX inflation remained below the Government's target of 2.5% for almost the whole year.² HICP inflation increased to 1.2% in 2001, from 0.8% in 2000. Import prices fell slightly compared with 2000. In the first half of the year, poor weather and the foot-and-mouth epidemic had a temporary upward effect on inflation. Inflation was tempered by subdued developments in commodity and producer prices. Annual earnings growth in the economy as a whole increased somewhat compared with 2000, masking robust growth in regular pay which was offset by lower bonuses. Annual growth in unit labour costs in the economy as a whole also rose compared with the previous year. Overall, cost pressures seem to have remained rather subdued and the pick-up in inflation may have been an indication that retailers' margins were recovering, possibly as a reflection of the sustained strength of private consumption.

Following the sizeable improvement in the general government budget in previous years

resulting in a surplus of 1.8% (excluding UMTS licences) in 2000, the surplus declined to 0.9% of GDP in 2001. This decline was the result of a significant increase in government expenditure which created an expansionary fiscal policy stance. The debt-to-GDP ratio fell from 42.4% in 2000 to 39% in 2001. The updated Convergence Programme projects a further fiscal expansion, leading to deficits of 0.2% and 1.1% of GDP for the fiscal years 2001-2002 and 2002-2003 respectively. The debt-to-GDP ratio is projected to fall modestly to 38.1% and 37.2% during these years.

The Bank of England conducts monetary policy within a flexible exchange rate regime with an explicit and symmetric inflation target, set by the Government at an annual increase in the RPIX of 2.5%. In 2001 the official repo rate was reduced seven times by a total of 2 percentage points to 4.0%. These reductions came in a context of a weakening international environment, a downturn in the manufacturing sector and a benign inflation outlook. As a result of the interest rate cuts, the short-term interest rate differential vis-à-vis the euro area continued to narrow, albeit at a slower pace than in 2000. Long-term interest rates rose in the first half of the year, and then fell back to end the year below their level at the start of 2001. They remained below the average euro area rates for most of the year (see Chart 27). The pound sterling exchange rate against the euro fluctuated around an average of GBP 0.62. Its appreciation during the first half of the year to GBP 0.59 was broadly offset by a depreciation in July and August.

² The RPIX is defined as the Retail Price Index excluding mortgage interest payments.

Italy: Packing euro coins at the Mint of Italy in Rome



Chapter V

European, multilateral and bilateral issues

I European issues

In 2001 the ECB continued to maintain and develop its regular contact with Community institutions and relevant bodies.¹ As foreseen in Article 113 of the Treaty, ECB representatives attended several meetings of the ECOFIN Council when matters relating to the tasks and objectives of the ESCB were being discussed. In 2001 such matters related to financial market issues and the preparation of the Broad Economic Policy Guidelines (BEPG) in particular. At the same time, the President of the ECOFIN Council used the opportunity to participate in meetings of the Governing Council of the ECB on several occasions. In this context, it should be noted that during the first half of 2001, when the EU Council Presidency was held by Sweden, a Member State with a derogation, the President of the Eurogroup attended Governing Council meetings on behalf of the President of the ECOFIN Council. A member of the European Commission also participated in meetings of the Governing Council.

Beyond this contact on the basis of Article 113 of the Treaty, the President of the ECB and the governors of the national central banks were invited to the three informal meetings of the ECOFIN Council which took place in Malmö (Sweden) in April and in Liège and Laeken (Belgium) in September and December 2001 respectively. The Malmö meeting also gave the ECOFIN ministers, the governors of the national central banks of the Member States and the President of the ECB the opportunity to hold an exchange of views with their counterparts from the 13 candidate countries. The meeting in Liège allowed for a first in-depth discussion and assessment of the economic consequences of the terrorist attacks on the United States on 11 September 2001. Furthermore, the President of the ECB was invited to an exchange of views with the EU Heads of State or Government at the informal European Council meeting in Ghent in October. On this occasion, the discussion focused on the general economic situation and the state of preparation for the introduction of the euro banknotes and coins.

In line with past practice, the ECB continued to attend meetings of the Eurogroup on a regular basis. Participation in those meetings provides an opportunity for the ECB to engage in an open and informal policy dialogue with the finance ministers of the euro area Member States and the Commissioner responsible for Economic and Monetary Affairs. Discussions within the Eurogroup continued to concentrate on the overall economic outlook for the euro area, budgetary developments in individual euro area Member States and, with increasing intensity, the progress of necessary structural reform. A further specific focus of the Eurogroup in 2001 was a regular monitoring of the state of preparation for the euro cash changeover.

In addition to the relations described above at the political level, the ECB participated in the work of the Economic and Financial Committee (EFC) and the Economic Policy Committee (EPC). Through its membership of both committees, which provide analysis and advice for the ECOFIN Council and the Eurogroup, the ECB was able to contribute its expertise to the various economic policy procedures and multilateral surveillance exercises. In this vein, the ECB participated in, inter alia, the preparation of the Broad Economic Policy Guidelines and the assessment of the Member States' stability and convergence programmes. Moreover, the ECB contributed to the wide range of other activities of both committees, including the refinement of analytical tools and methods and the comprehensive country review exercise of the EPC. Since the focus of the latter is mainly on structural reform and leads to the EPC's annual report on structural reform, the contribution to this work provides the ECB not only with a useful insight into the process of structural reform,

¹ The ECB's relations with the European Parliament are dealt with separately in Chapter XI of this Annual Report.

but also with the opportunity to share its views with Member States.

The ECB also continued to attend the biannual meetings of the Macroeconomic Dialogue, at both the technical and the political level. In line with the mandate provided by the Cologne European Council, representatives of the Member States, the European Commission, the ECB, non-euro area central banks and the EU level social partners discussed the economic outlook and related policy challenges. The Macroeconomic Dialogue thereby continued to allow for a confidential exchange of views and confidence-building among the participants.

Finally, the ECB continued to maintain close working relations with the European Commission. Beyond regular working contact covering a variety of areas, there were bilateral visits between the President of the European Commission, the Commissioner for Economic and Monetary Affairs and members of the Executive Board.

From among the broad range of topics dealt with by the European institutions and bodies with which the ECB maintains close relations, the following are highlighted given their economic and institutional importance.

1.1 Development of the Economic Policy Framework

In the third year since the start of Stage Three of EMU, the economic policy framework, with its specific allocation of policy responsibilities, multilateral procedures and common policy instruments, continued to be further developed and refined.² Particular attention was placed on improving the Broad Economic Policy Guidelines as an instrument for guiding the economic policy decisions in the Member States and on procedural and methodological refinements to the Stability and Growth Pact. Moreover, the use of the “open method of co-ordination” established by the Lisbon European Council was extended, in particular

by an increased reference to indicators and precise timetables for the achievement and assessment of progress in a growing number of policy areas.

The 2001 Broad Economic Policy Guidelines

For the adoption of the Broad Economic Policy Guidelines (BEPG), the Community applied for the first time the procedure initiated by the Lisbon European Council. Accordingly, the BEPG benefited from contributions from a wider range of Council formations, including, in addition to the ECOFIN Council, the Employment and Social Policy Council and the Internal Market Council. Moreover, in line with the understanding that the European Council should take on a pre-eminent guiding and co-ordinating role with regard to the coherence of the BEPG and the effective monitoring of progress as concerns their implementation, the Stockholm European Council in March provided guidance on key issues to be dealt with in the 2001 BEPG.

The European Commission presented a comprehensive report on the implementation of the BEPG of the previous year. Its implementation reports, which are drafted in accordance with Article 99 (3) of the Treaty, serve to provide an accurate and detailed picture of the actual implementation of the BEPG. In this way, achievements as well as failures and lack of progress with regard to the actual implementation of the BEPG can be highlighted and serve as a basis for the formulation of new guidelines for the following year. The close monitoring of adherence to the recommendations of the BEPG is essential in that, on the basis of Article 99 (4) of the Treaty, the ECOFIN Council may decide to issue a specific recommendation to an individual Member State in the event of non-compliance with

² An article entitled “The economic policy framework in EMU” was published in the November 2001 issue of the ECB’s *Monthly Bulletin*.

the BEPG or if the policies of a Member State would risk jeopardising the proper functioning of Economic and Monetary Union. In 2001 the ECOFIN Council adopted the first recommendation under this specific provision which is intended to ensure adherence to the BEPG.

Refining the implementation of the Stability and Growth Pact

In EMU, in accordance with Article 104 of the Treaty, Member States are committed to avoid excessive deficits. Moreover, their budgetary policies are framed within the rules of the Stability and Growth Pact. Under these terms, the euro area Member States submit to the EU Council and the European Commission each year stability programmes which provide the necessary information for the multilateral surveillance of their budgetary policies. Each Member State's stability programme should present the medium-term objective of its budgetary policy, which should be close to balance or in surplus, and the adjustment path towards this objective. Moreover, it should describe the economic policy measures being taken – or to be taken – to achieve this objective and present the main assumptions about expected economic developments and how changes in these assumptions would affect budgetary outcomes. Correspondingly, the non-euro area Member States present convergence programmes providing comparable information to that contained in the stability programmes, as well as information on medium-term monetary policy objectives. The stability and convergence programmes are examined by the EU Council, which assesses the appropriateness of the objectives, assumptions and measures contained therein, in particular with a view to avoiding excessive deficits. Moreover, the EU Council assesses their consistency with the BEPG.

In view of the central role of the stability and convergence programmes in the process of multilateral surveillance, it is important that their content is appropriate and allows for

comparisons to be made across Member States. Recognising this, the Monetary Committee (the legacy committee of the Economic and Financial Committee) adopted, and the ECOFIN Council endorsed on 12 October 1998, an Opinion and a Code of Conduct on the content and format of stability and convergence programmes. The Code of Conduct, which serves as a checklist to be used by the Member States in preparing their stability and convergence programmes, provides precise guidelines as to the information to be presented in terms of, inter alia, budgetary objectives, underlying assumptions, policy measures and sensitivity analysis.

In 2001 the Economic and Financial Committee reviewed experience gained with the assessment of stability and convergence programmes since the adoption of the Code of Conduct. It considered that, on the whole, the Code of Conduct of 1998 had contributed to well-functioning procedures, but that some improvements could nonetheless be made. To this end, it adopted a new Opinion and Code of Conduct. The latter were endorsed by the ECOFIN Council at its meeting on 10 July 2001. The new Opinion and Code of Conduct update and revise their predecessors in the following respects:

- First, the revised Opinion and Code of Conduct provide greater clarity regarding the BEPG's role in relation to the Stability and Growth Pact. In particular, it is stressed that the stability and convergence programmes should be consistent with the BEPG, which is the overarching instrument of economic policy co-ordination.
- Second, the revised Opinion and Code of Conduct lay the foundations for a greater equality of treatment across Member States. Henceforth, the content and format of stability and convergence programmes are to be more standardised. Member States are to respect a minimum set of information requirements agreed by the Economic and Financial Committee and annexed to the Code of Conduct. As far

as possible, common assumptions are to be used by all Member States as regards the external economic environment. Finally, stability and convergence programmes should be submitted both earlier and within a shorter period of time than has been the case thus far. This should allow the ECOFIN Council to examine all stability and convergence programmes within a maximum of two consecutive sessions.

- Third, the revised Opinion and Code of Conduct take into account the conclusions of the Lisbon and Stockholm European Councils with regard to the quality of public finances and the budgetary implications of population ageing. Thus, in future, the stability and convergence programmes should present the measures being taken to improve the quality of public finances. They should also describe the longer-term budgetary implications of population ageing and outline the strategy to tackle this problem.

1.2 Financial market reform

Since the introduction of the euro, increasing attention has been devoted to removing the remaining obstacles to the emergence of a truly single market for financial services in order to reap the full benefits of the single currency. In Lisbon in March 2000, the Heads of State or Government set the ambitious target of making the EU the most competitive and dynamic knowledge-based economy in the world. To meet this objective, it called for, *inter alia*, an acceleration of the completion of the internal market for financial services. In 2001 further important steps were taken to this end. In particular, the Stockholm European Council called for a more rapid implementation of the Financial Services Action Plan (FSAP) and endorsed the “Lamfalussy report” on measures to speed up the implementation of regulations needed for the creation of an efficient European securities market.

The Financial Services Action Plan

The Stockholm European Council called for full implementation of the Financial Services Action Plan by 2005 in order to overcome the remaining imperfections in the European market for financial services. Thus, more political weight was put behind this crucial project which was launched in 1999.

The FSAP provides guidelines for the necessary measures to be taken in the area of financial markets, in that it identifies areas in which progress is needed and provides guidance for their implementation. Results achieved are regularly reviewed by the European Commission, assisted by the Financial Services Policy Group in which the ECB is also represented. In its fifth Progress Report on the implementation of the FSAP, which was issued in December 2001, the Commission considered that significant progress had been made. Of the 42 measures identified in the FSAP, 25 had been adopted since 1999 or were about to be adopted at that point in time. In 2001 the EU Council and the European Parliament adopted legal acts relating to the European company statute, money laundering and undertakings for collective investment in transferable securities (UCITS). Of the remaining 17 FSAP measures there were only six legislative proposals still to be made by the Commission. These included the revision of the capital adequacy framework for banks and investment firms and the Investment Services Directive. Thus, responsibility for the rapid implementation of the FSAP has now shifted mainly to the EU Council and European Parliament, which need to adopt the necessary legislation on the basis of European Commission proposals. In this context, in December 2001 an agreement was reached within the EU Council on four proposals relating to the distance marketing of financial services, financial collateral, market abuse and international accounting standards (IAS). However, the Commission’s fifth Progress Report also highlighted the fact that important concerns still remain. These relate in particular to the absence of tangible

progress on the Pension Funds Directive and the proposed directive on takeover bids which, after 12 years of negotiation, was rejected by the European Parliament. Therefore, in spite of the progress achieved so far, more decisive action needs to be taken in order to deliver the Action Plan within the agreed time frame. To this end, the Commission initiated a mid-term review in February 2002.

The Lamfalussy report

With the endorsement of the measures suggested in the Report of the Committee of Wise Men on the regulation of European securities markets, the Stockholm European Council also signalled the importance it attached to the rapid achievement of a truly integrated securities market (which should be completed by 2003). The Committee of Wise Men, chaired by Mr. Lamfalussy, was set up in July 2000 to examine how to achieve a more effective approach towards the implementation of regulations needed for the creation of an efficient securities market in the EU. The "Lamfalussy report", which was published in February 2001 after a wide-ranging consultation to which the ECB also contributed, proposed a four-level approach for the adoption of securities market regulations and the monitoring of their proper implementation. Moreover, the report suggested that two new committees be established, namely the European Securities Committee (ESC) with both regulatory and advisory functions, and the advisory Committee of European Securities Regulators (CESR). Against this background, the four-level approach for the adoption and monitoring of the implementation of securities market regulations is designed as follows. At the first level, the basic principles of the respective legislation are to be laid down through framework directives and regulations; at this level, the ESC is to assist the Commission in drafting its proposals. At the second level, the Commission will adopt implementing legislation with the assistance of the ESC under a specific

comitology procedure. In this context, the CESR will provide the Commission with technical advice in relation to the preparation of its proposals. The function of the third level is to ensure that Community law is interpreted in an efficient and consistent manner. The CESR is to perform this task. Finally, at the fourth level, the Commission will monitor compliance with Community law on the part of Member States.

Since the above-mentioned endorsement of the Lamfalussy report by the Stockholm European Council, the two committees have been set up. The ESC is composed of representatives of ministries of finance of Member States and is chaired by the European Commission. The CESR, which operates as a body independent from the Commission, brings together the heads of the national public authorities competent in the field of securities regulation and supervision. In September 2001 it took over the activities and secretariat of the informal Forum of European Securities Commissions (FESCO). The ECB participates as an observer in the meetings of the ESC and may be invited by the CESR to its meetings "where this is relevant", as foreseen in the latter's statutes.

The Commission has made proposals for two new directives, on prospectuses and market abuse,³ which should be adopted and implemented in accordance with the new rules. On the basis of Article 105 (4) of the Treaty, the ECB delivered its Opinions on the two proposals on 18 and 22 November 2001 respectively. In its Opinion concerning the proposed directive on prospectuses, the ECB welcomed the proposal as an effective means of advancing the integration of European financial markets. The proposed directive will improve market access for raising capital in the EU and eliminate existing obstacles to cross-border offerings of

³ *Commission proposals for directives of the European Parliament and of the Council (i) on the prospectus to be published when securities are offered to the public or admitted to trading and (ii) on insider dealing and market manipulation (market abuse).*

securities. However, the ECB noted that a high level of disclosure has to be weighed against the need for an efficient issuance process, with costs proportional to the size of the issuing company and the type of securities issued. In its Opinion concerning the proposed directive on market abuse, the ECB welcomed the proposal as a contribution to the establishment of sound and consistent standards, which should further promote the integrity of European financial markets, enhance investor confidence and ensure the smooth functioning of the markets.

2 Multilateral issues

In 2001 the Eurosystem continued to participate in the activities of international organisations and fora related to monetary, financial and economic issues. The practical arrangements for the international representation and co-operation of the ECB, as described in the ECB's Annual Report 1999, remained broadly unchanged. Working relations with several international organisations and fora were deepened. In particular, the IMF completed a Report on the Observance of Standards and Codes (ROSC) for the euro area, and the OECD drew up its first "Economic Survey of the Euro Area" (see Section 2.2). Financial relations with the IMF were strengthened through the conclusion of a special drawing rights (SDR) selling and buying arrangement between the IMF and the ECB, as prescribed holder, on 18 April 2001. This arrangement allows the IMF to initiate SDR transactions between the ECB and other holders of SDRs, thereby contributing to the smooth management of the IMF's SDR department.

2.1 Multilateral and bilateral surveillance of macroeconomic policies

The Eurosystem participates in regular peer reviews (multilateral surveillance) and consultations with international institutions (bilateral surveillance) of monetary, financial

and economic developments and policies, as these reviews enhance its ability to analyse the impact of external developments on euro area variables. These procedures do not involve ex ante international co-ordination of the single monetary policy with the policies carried out by non-euro area countries. Such ex ante co-ordination, going beyond regular exchanges of information and views among major policy-makers, would be incompatible with the mandate of the Eurosystem – which is to maintain price stability in the euro area – and with its independence.

On 5 February 2002, the Commission and the European Parliament reached an agreement which resolved some remaining institutional questions relating to the Lamfalussy procedure, in particular with regard to the role of the European Parliament in the adoption of implementing legislation. This agreement removed the final obstacle to the application of the Lamfalussy procedure in the case of forthcoming financial market legislation, starting with the aforementioned directives on prospectuses and market abuse.

Multilateral surveillance

The ECB participated in the exchange of information and views with other policy-makers in multilateral organisations and fora. Regular meetings on monetary, financial and economic developments and policies in major economic areas contributed to, inter alia, clarifying views on current policies in the euro area and on the impact of external developments on the euro area economy. Some of these meetings were prepared at the EU level, inter alia by the EFC.

In 2001, several international meetings provided an opportunity for such multilateral exchanges of views. The President of the ECB, together with the Eurogroup Presidency, represented the euro area in the sessions of

the meetings of G7 finance ministers and central bank governors devoted to surveillance and exchange rate issues. The President of the ECB also participated in the discussions on the state of the world economy in a number of other informal fora, such as the ministers and governors of the G10 and the G20.

The ECB Observer participated in the regular reviews by the IMF Executive Board of world economic and market developments and in the discussions by the IMF Executive Board of the “World Economic Outlook” (May, October and December 2001).

The ECB participated in the Economic Policy Committee of the OECD, which discussed the short-term global outlook and near-term policy requirements, thereby contributing to the preparation of the OECD Economic Outlook (June and November 2001). Furthermore, the Economic Policy Committee reviewed economic policies aimed at fostering growth and discussed the policy implications of trends in saving and investment. The ECB also took part in meetings of sub-committees and working parties of the EPC.

Bilateral surveillance

The Eurosystem contributed to bilateral reviews of monetary, financial and economic policies with the IMF and the OECD. In 2001, the IMF staff prepared two Article IV reports on the monetary and exchange rate policies of the euro area, which complemented the national consultations on other policies, in particular in the fiscal and structural areas. The first report was circulated for information to the IMF Executive Board and published in April 2001. The second report was discussed by the IMF Executive Board and published in November 2001, together with a public information notice summarising the IMF Executive Board’s assessment.⁴ The Executive Directors of the IMF noted that, in the face of a synchronised world slowdown, the euro area’s economic activity proved less

resilient than anticipated, but that macroeconomic fundamentals remain sound in the absence of any significant imbalances. As for monetary policy, they noted that the risks to price stability were receding, and that the ECB had properly reversed a significant proportion of the monetary tightening it undertook in 2000. They “commended the swift action by the ECB, in concert with the US Federal Reserve and other central banks, to shore up confidence and provide sufficient liquidity to the banking system in the aftermath of the events of September 11”. The medium-term orientation of the Stability and Growth Pact was endorsed as a contribution to confidence in sound fiscal policy. To increase the euro area’s growth potential, further structural reforms, especially in the labour market, were recommended. In addition, in November 2001, the IMF published background documents, prepared by its own staff, on relevant euro area issues, such as the first pillar of the ECB’s monetary policy strategy, the effect of external shocks on euro area inflation, the exchange rate of the euro, and the estimation of potential output.

In the context of the Article IV consultation, the IMF also prepared a euro area Report on Observance of Standards and Codes (ROSC) (see Box 9).

In the April 2001 the OECD published its first “Economic Survey of the Euro Area”, which drew on, inter alia, the work of an OECD staff mission to the ECB. The Economic and Development Review Committee of the OECD, in which the Eurogroup Presidency, the European Commission and the ECB jointly represented the European Community, was responsible for finalising the survey. The survey noted that external developments had generated concerns about macroeconomic prospects in the euro area, although the euro area is in a better position to withstand such adverse external shocks than the constituent countries were in the past. As regards

⁴ See the IMF’s website at <http://www.imf.org>.

Box 9

Euro area Report on Observance of Standards and Codes (ROSC)

At the ECB's request, the IMF prepared a Report on Observance of Standards and Codes (ROSC) on selected Codes and Core Principles for the euro area (November 2001). Participation in the ROSC exercise reflected the Eurosystem's commitment to meeting international standards and codes, as well as their support for the international financial institutions' efforts to foster compliance with best practices. It should also be seen as a complement to the ROSC or Financial Sector Assessment Programme (FSAP) modules prepared at the level of individual euro area Member States.

The ROSC assessed the transparency of monetary policy and payment systems oversight, on the basis of the IMF's Code of Good Practices on Transparency in Monetary and Financial Policies, as well as the compliance of the euro area's two main payment systems, TARGET and Euro 1, with the CPSS Core Principles for Systemically Important Payment Systems. The IMF staff found that the Eurosystem has achieved a very high degree of compliance with transparency principles applicable to monetary policy and payment systems oversight. The ECB was found to pursue a large publication and public relations programme, providing extensive information on its policies, procedures and practices. In particular, the IMF staff considered that the Monthly Bulletin and other regular public statements that accompany policy decisions communicate the monetary policy stance to the public in an open and timely manner. However, the IMF staff considered that improvements could be made in some areas. In particular, in order to meet the requirements under the IMF's Special Data Dissemination Standard concerning the advance release calendars for monetary statistics, the IMF staff recommended an extension of the advance publication of release dates by one month. The ECB has been complying with this recommendation since September 2001. The IMF staff also considered that additional clarification regarding the allocation of responsibilities for foreign exchange policy could be helpful. Finally, the IMF recommended some improvements regarding disclosure practices for some functions carried out by NCBs.

As regards payment systems, the ROSC concluded that Euro 1 fully observes all the Core Principles. TARGET was considered to be almost fully in line with the Core Principles and was seen as effective in transferring funds throughout the EU, thereby contributing to a smooth implementation of monetary policy within the euro area. Nonetheless, the IMF staff identified opportunities for certain improvements in operational reliability, risk assessment, consultation procedures, efficiency and governance (see Section 2 of Chapter VII).

monetary policy, the survey examined monetary conditions, which were found to have remained relatively accommodating, and reviewed several aspects of the monetary policy framework, including the publication of the Eurosystem staff macroeconomic projections.

2.2 Monitoring of developments in global financial markets

Global financial market stability

Given that, in accordance with the Treaty, the Eurosystem must contribute to the smooth conduct of policies pursued by the

competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system, the ECB continued to devote special attention to the work undertaken within international financial institutions and fora dealing with developments in global financial markets. The ECB participated in the regular monitoring of market developments by the Financial Stability Forum (FSF), aimed at gathering views on vulnerabilities in domestic and international financial systems, and the Committee on the Global Financial System (CGFS), intended to identify potential sources of vulnerabilities and assess changes in the operational infrastructure of financial markets. Within the OECD, the ECB

continued to take part in reviews of structural developments in global financial markets carried out by the Financial Markets Committee. The IMF reviewed financial market developments in its "International Capital Markets Report" (August 2001). In preparing this Report, an IMF delegation visited the ECB to discuss recent developments in the European financial markets, with a special focus on financial integration and policies to ensure financial stability.

Specific initiatives to enhance financial stability

A number of international organisations and fora, in which the ECB participates, studied specific topics relating to the functioning of international financial markets. Particular attention was devoted to anti-money laundering initiatives and measures to combat the financing of terrorist activities, especially in the aftermath of the events of 11 September 2001.

The ECB took part in several committees operating under the auspices of the central bank governors of the G10 countries. The Basel Committee on Banking Supervision continued to work on an in-depth revision of the capital adequacy framework (a more detailed discussion of the revisions made to the capital adequacy framework is provided in Chapter VIII). The CGFS analysed the financing of the new economy, reviewed market liquidity conditions and studied recent changes in the major fixed-income markets. The G10 Deputies are preparing two studies: one on the legal underpinnings of financial markets with a view to enhancing their resilience in the face of financial distress, and another on the microeconomic determinants of asset price developments. The ECB was also involved in the work of both the CPSS, which is chaired by a member of the ECB's Executive Board, and the Gold and Foreign Exchange Committee.

The FSF reviewed progress in implementing the recommendations that it had formulated in 2000 to address potential concerns about highly leveraged institutions. Progress was noted in the strengthening of counterparty risk management and regulatory oversight, as well as in the disclosure of information by highly leveraged institutions to credit providers. The FSF also examined the actions taken so far to address concerns with respect to offshore financial centres, and encouraged these centres to improve their supervisory and co-operation practices, inter alia through participation in the assessment programme launched by the IMF. Finally, the FSF completed its international guidance on deposit insurance schemes.

2.3 The architecture of the international monetary and financial system

The Eurosystem contributed to further work on measures to improve the overall stability of the global monetary and financial system. These contributions were made either through direct participation in the relevant international institutions and fora or through work at the European level, in particular in the EFC. In this context, the Eurosystem has closely monitored the experience of specific regions and countries.

Soundness of domestic economic policies

Specific attention was devoted to the stability of domestic financial systems and the implementation of standards and codes. The IMF and the World Bank continued to implement their joint Financial Sector Assessment Programme (FSAP), whereby financial sectors in individual IMF member countries are assessed and potential vulnerabilities are identified. Furthermore, the IMF monitored compliance with international standards and codes by preparing Reports on Observance of Standards and Codes for a number of IMF member countries. In the context of an arrangement agreed with the

IMF, the ECB provided technical experts for FSAP and ROSC missions in 2001.

Sound policies extend beyond the traditional macroeconomic policy domain and encompass, inter alia, prudent management of foreign reserves, a carefully conducted liberalisation of capital movements and an appropriate exchange rate policy. The IMF drew up guidelines for foreign exchange reserve management (September 2001), which are not a set of binding principles, but rather are designed to assist official foreign reserve managers in strengthening their policy frameworks, to help increase their country's resilience to financial market shocks. Drawing on their own experience in official reserve management, the Eurosystem actively contributed to the development of the guidelines.

International organisations and fora also devoted specific attention to the orderly liberalisation of the capital account. The Eurosystem believes that capital account liberalisation is inherently beneficial, provided that it is carefully designed and sequenced in line with the development of robust domestic financial sectors. In particular, liberalisation should start with the most stable elements of capital flows, i.e. long-term flows, such as foreign direct investment. Furthermore, domestic financial systems should be sufficiently strong before restrictions on capital flows are totally lifted. The Eurosystem also emphasises that, for certain countries, regional economic integration may provide an impetus to opening the capital account.

As for the choice of appropriate exchange rate policy regimes, the Eurosystem stressed that the purpose of any exchange rate regime is to promote economic and financial performance, by contributing to price stability and orderly international trade and financial relations. Given that economies differ widely, no exchange rate regime is suitable for all countries, nor for any country all of the time. As there is an interactive relationship between exchange rate policy and other

components of countries' overall policy frameworks, policy-makers should ensure that exchange rate policy and underlying conditions, especially as regards the degree of capital account liberalisation, remain consistent over time. This interactive relationship also implies that all exchange rate regimes can be subject to a shift, depending on changing domestic and external conditions. As regards the latter aspect, specific attention needs to be paid to close regional trade and financial links among countries that may – provided that certain conditions are met – influence the choice of regime, its sustainability and the need for and smoothness of a shift in regime.

Regional co-operation

International surveillance is increasingly focusing on regional developments and issues, such as the choice of exchange rate regimes in a regional context and the exploration of possible forms of monetary policy co-operation at a regional level. In this context, the ECB has closely reviewed regional integration processes outside the euro area, focusing on issues such as exchange rate regimes, capital account liberalisation and financial co-operation (e.g. the “Chiang Mai Initiative” within the ASEAN+3 group). The ECB is also actively involved in several co-operation initiatives with Asia and Latin America. In particular, the Vice-President of the ECB participated in the Third Asia-Europe Finance Ministers' Meeting in January 2001 in Kobe, Japan. At that meeting it was agreed, among other things, to promote co-operative research activity between Asia and Europe by launching a common research project, the so-called Kobe Research Project. The ECB is actively contributing to this project through the preparation of a seminar on “Regional economic, financial and monetary co-operation: the European and Asian experiences”, to be hosted by the ECB in 2002. The ECB has also strengthened its relations with Latin American countries, in particular through the preparation, in co-operation with the Banco de España,

of a Eurosystem seminar on regional integration in Latin America, also to be held in 2002.

Management of financial crises

In the field of crisis management, the ECB contributed to the work of the international community, inter alia via the EFC. These contributions were based to a large extent on the continuous monitoring and assessment both of international financing and adjustment packages and of private sector involvement in systemically important emerging market economies, such as Argentina and Turkey.

Of particular prominence is the continued work on measures to involve the private sector in financial crisis prevention and resolution, which has been undertaken by the IMF, the G7 and other international organisations. In its contributions to this work, the Eurosystem has stressed the need for clear rules that would set out the respective responsibilities of the private and public sectors in the resolution of crises. Further work is needed to better define the respective roles of official and private finance and to develop procedures for their effective implementation. In this regard, the Eurosystem took part in the development of agreed principles to govern private sector involvement and remains involved in assessing the implementation of such principles.

The Eurosystem has also taken an interest in the IMF's general review of conditionality attached to financing packages. The basic objectives of the review were to make conditionality more efficient, effective and focused, without weakening it. The IMF decided that conditions should focus on the policy reforms that are crucial in order to help countries address their balance of payments problems. In contrast, structural measures that are relevant, but not of critical importance, should be given less priority. A more focused conditionality also requires strengthened collaboration between the IMF and the World Bank.

2.4 The international role of the euro

The international role of the euro – the second most widely used currency in the world – is and will mainly be determined by the market. The increasing liberalisation and globalisation of financial markets will sharply limit any direct bearing which policy-makers could have on such a use. The Eurosystem is not, therefore, pursuing the internationalisation of the euro as an independent policy goal. Indirectly, however, European public policies may influence future developments, since market participants will take these policies into account when denominating their liabilities, allocating their portfolios among different currencies, or invoicing external trade. For instance, stability-oriented policies and efforts to promote an efficient and fully integrated financial market for euro-denominated assets and liabilities are likely, if successful, to make the euro more attractive to international borrowers and investors, thereby increasing its role as a store of value.

As regards the international use of the euro, the evidence currently available is as follows: as a financing currency, the share of the international issues of euro-denominated money market instruments increased substantially in gross terms between the first quarter of 1999 and the second quarter of 2001, mainly as a result of higher liquidity brought about by the creation of an integrated euro money market. On average, the share of the euro's legacy currencies in money market issuance by non-residents was 8.5% in the period from 1994 to 1998 (US dollar 77%, Japanese yen 4.5%), while between the beginning of 1999 and the end of June 2001 the share of the euro averaged 24% (US dollar 60%, Japanese yen 3%). A similar increase took place in the issuance of euro-denominated international bonds and notes. The average share of the euro's legacy currencies in bond issuance by non-residents of the euro area was 18% in the period from 1994 to 1998 (US dollar 42%, Japanese yen 25%). Between the beginning of 1999 and the end of June 2001 the share of the euro in

international bond issuance rose substantially, to 31% (US dollar 36%, Japanese yen 18%).

As an investment currency, the estimated share of euro-denominated debt securities in the portfolios of major global asset managers was 28% at the end of September 2001 (US dollar 49%, Japanese yen 16%). At the same time, holdings of euro area equity securities accounted for 25% (United States 50%; Japan 10%).

As regards the use of the euro as a vehicle currency in the foreign exchange market, the latest BIS Triennial Survey shows that in April 2001 the euro entered on one side of 38% of "net-net" foreign exchange transactions⁵ (US dollar 90%, Japanese yen 23%). Although the euro does not play a role comparable to that of the US dollar at the global level, at the regional level the euro inherited a role

from its legacy currencies (mainly the Deutsche Mark), especially in eastern Europe.

Finally, with regard to the official uses of the euro, more than 50 countries outside the euro area currently have an exchange rate regime involving an external anchor in which the euro plays a role. As a reserve currency, at the end of 2000 the euro accounted for 12.7% of the world foreign exchange reserve assets, compared with 68.2% for the US dollar and 5.3% for the Japanese yen. This level is comparable to that reached by the legacy currencies (mainly the Deutsche Mark, French franc and Dutch guilder) prior to the introduction of the euro, implying that there has been no reallocation of official reserves out of the US dollar. The official use of the US dollar and the euro tends to differ significantly depending on the geographical area.

3 Bilateral issues

In 2001 the Eurosystem continued to deepen its working relations with central banks outside the European Union. In particular, it further strengthened its dialogue with the central banks of the EU accession countries, at both the technical and the policy level, which also includes the monitoring of economic and institutional developments in these countries.⁶ In parallel, the Eurosystem also contributed to the "Economic Dialogue" established in 2001 between the European Union and the governments of accession countries. Moreover, it was involved in a significant number of activities in co-operation with the accession countries' central banks, addressing a wide range of central banking issues. Finally, the ECB further developed working relations with central banks in other neighbouring countries and key emerging markets in Asia and Latin America.

3.1 The EU accession process: some key economic policy issues identified by the Eurosystem

During the course of 2001 the process of accession gained considerable momentum. The Eurosystem analysed key macroeconomic policy issues of relevance to the accession process. Five issues deserved particular attention, namely price developments, monetary and exchange rate policy strategies, real convergence, the structure and functioning of the banking and financial sectors and capital account liberalisation. Moreover, the Eurosystem agreed on a number of policy positions on the EU accession process (see Box 10).

⁵ Because two currencies are involved in each transaction, the sum of the percentage shares of individual currencies totals 200% instead of 100%. The figures relate to reported "net-net" turnover, i.e. they are adjusted for both local and cross-border double-counting.

⁶ The 12 countries currently negotiating EU accession are Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

Price developments

Over the past few years most accession countries have made remarkable progress in bringing down inflation, with the rate of price increase declining to around 6% on average by the end of 2001 (excluding Romania, with an inflation rate of over 30%). The “Balassa-Samuelson effect”⁷ has often been cited as one of the main reasons for the current inflation differentials with the euro area. However, closer examination shows that this effect alone does not explain the persistence of those inflation differentials with the euro area. Indeed, further disinflation is complicated by, inter alia, the inflationary impact of the ongoing transition and convergence-related factors, including price liberalisation and the privatisation process. Apart from the transition and convergence-related factors, inflation differentials with the euro area have also been due to more expansionary fiscal and wage policies in some countries.

Monetary and exchange rate policy strategies

Over the past few years there has been a significant diversity in the monetary policy and exchange rate strategies of accession countries. While the Baltic States and Bulgaria have kept their pegs or currency boards and Romania has kept its managed float, the central and eastern European countries have gradually moved towards more flexible exchange rate arrangements, which has allowed them to focus more on fighting domestic inflation, partly through nominal appreciation. Notwithstanding this variety, the importance of the euro as a main reference currency in pegged or managed floating regimes has steadily increased over the past few years. In 2001, Lithuania announced the re-pegging of its currency, the litas, from the US dollar to the euro on 2 February 2002. Moreover, both Hungary and Cyprus opted to shadow ERM II with a $\pm 15\%$ fluctuation band, and to anchor exchange rate expectations already in the

pre-accession phase with a view to ERM II membership, which is a Treaty requirement for the eventual adoption of the euro.

Real convergence

With real GDP growth in the accession countries expected to have averaged at around 2.9% in 2001 (according to the IMF), growth differentials with the euro area remain limited. Meanwhile, the gap between average GDP per capita – the most easily quantifiable measure of real convergence – in the accession countries and in the euro area remains large. Indeed, in 2000 income levels in the accession countries were around 44% of the EU average in terms of purchasing power parity and only around 22% in terms of current exchange rates. Large differences exist between accession countries, which exhibited individual GDP per capita figures ranging from 24% to 82% of the EU average in terms of purchasing power parity, and from 7% to 63% in terms of current exchange rates for the year 2000. The size of the income gap, combined with the small growth differentials, suggests that the process of real convergence will be very gradual and reach far beyond the tentative dates for EU accession.

The banking and financial sector

Accession countries have made major progress over the past decade in establishing well-capitalised and sound banking sectors, although there remain a number of transitional issues, which would need careful monitoring. The banking sectors have been considerably strengthened through large-scale privatisation of state-owned banks and extensive opening up to foreign investors,

⁷ *The Balassa-Samuelson effect occurs if productivity growth is faster in the tradable than in the non-tradable sector, resulting in a rise in the relative price of non-tradables. A rise in productivity in the tradable goods sector will tend to drive up wages in this sector and, as labour is assumed to be mobile across sectors, push up wages in the non-tradable sector. As the latter increase is not matched by a productivity increase, it will raise costs and thereby prices in the non-tradable goods sector.*

Box 10

Overview of the Eurosystem's main policy positions on accession

- **Inflation developments:** The inflation convergence criterion should not be revised to account for the Balassa-Samuelson effect or for other factors affecting price developments in accession countries, to ensure, inter alia, equal treatment with the current euro area countries. While keeping price increases to a minimum is necessary in all countries to lay the foundation for macroeconomic stability and sustainable growth, fulfilling the Maastricht inflation criterion could, at the current stage, conflict with the structural changes associated with real convergence.
- **Real and nominal convergence:** Real and nominal convergence should be seen as complementary and be pursued in parallel. Real convergence can support the nominal convergence process, as structural reforms are likely to enhance growth potential and market flexibility. Likewise, nominal convergence, by anchoring inflation expectations, supports real convergence.
- **Monetary and exchange rate strategies:** In the pre-accession phase, no single exchange rate strategy is prescribed, although an increasing degree of orientation towards the euro would be in line with further economic and financial integration with the euro area. However, the unilateral adoption of the euro as legal tender ("euroisation") is incompatible with the rationale and multilateral framework of EMU. Following EU accession, ERM II should not be seen as a mere "waiting room" for the adoption of the euro, but as a meaningful policy framework within which to prepare the accession economies for Monetary Union and to achieve further real and nominal convergence. Euro-based currency boards may be judged compatible with ERM II, subject to an assessment on a case-by-case basis.
- **Capital account liberalisation:** Significant capital flows and incomplete restructuring of financial sectors mean that the pace and sequencing of further capital account liberalisation have to be supported by consistent macroeconomic and structural policies. As the accession countries are moving further towards full liberalisation, the main policy challenge consists in reducing their vulnerability to increasingly volatile capital flows by pushing ahead with structural reforms in the financial and corporate sectors and strengthening supervision.
- **Financial sector structure and functioning:** Accession countries need to implement legislation in the banking and financial areas that is part of the *acquis communautaire*, including money laundering. They also need availability of the functions necessary for financial markets and payment systems to operate in accordance with euro area standards. They also should set up mechanisms for risk-control and crisis management in banking and financial institutions. In countries where the banking supervision is not integrated in the central bank, it should at least be closely linked with the central bank.
- **Fiscal policy:** In the run-up to EU accession, the authorities should be prepared to accommodate higher public expenditure and possibly lower revenues arising from the transition and accession processes, without compromising the progress achieved in fiscal consolidation. Backtracking on past fiscal achievements would conflict with other policy objectives, in particular the pursuit of disinflation.
- **Acquis communautaire and central bank independence:** The effective implementation of the *acquis communautaire* is not only a legal prerequisite for accession to the EU but also implies the transformation of accession countries into fully fledged market economies, which should facilitate their integration into the EU and, later, the euro area. In this context, it should be ensured that there is no discrepancy between the central banks' formal status in the legislation and the implementation of that legislation.
- **Availability of statistics:** Accession countries should continue efforts to bring statistical systems up to EU standards, as the availability of reliable and timely statistics is crucial for sound decision-making (and, ultimately, the assessment of the Maastricht criteria).

which now own more than 60% of banking assets on average in these countries. This has provided the banking sector with know-how and capital and led to significant gains in efficiency and financial stability. The financial sector in the accession countries is largely dominated by the banking sector. Although in some accession countries the funding of the public sector via the debt securities market has gained considerably in importance with a substantial and increasing share of domestic and foreign non-banks as investors, stock and bond markets still play only a limited role on average. Moreover, the degree of financial intermediation remains relatively low, with the bank assets-to-GDP ratio and the credit-to-GDP ratio well below those prevailing in the euro area (on average one-quarter and one-third respectively). Furthermore, the interest rate and credit channels in the monetary policy transmission mechanisms remain relatively weak compared with the exchange rate channel.

Capital account liberalisation

As part of the *acquis communautaire* all accession countries are committed to complying with the full liberalisation of the capital account by the date of their accession to the EU, provided transitional periods are not stipulated during negotiations. So far, only a few countries have requested transitional regimes, and these relate mainly to areas that are of limited relevance to monetary policy (e.g. real estate purchases). In the course of 2001 the liberalisation of capital account progressed in several countries. Many accession countries have already reached a high degree of capital account liberalisation. However, in some countries capital accounts are still subject to a number of restrictions, which are mainly related to short-term capital. Moreover, large current account deficits and the likely fall in foreign direct investment inflows in connection with lower privatisation proceeds make many accession countries vulnerable to external shocks.

3.2 Co-operation between the Eurosystem and accession countries' central banks

In 2001 the Eurosystem intensified its regular co-operation with accession countries' central banks. In total, the Eurosystem performed 341 activities (compared to 296 in 2000) involving central banks from all accession countries. Such co-operation activities took various forms, most frequently training courses, workshops, technical assistance, bilateral visits at expert level, and high-level consultation (see Chart 29). These activities related to issues such as payment systems, economic policies and analysis, legal requirements, prudential supervision, banknotes, statistics, the monetary policy framework, the foreign exchange policy framework and information technology. More information regarding co-operation on specific issues relevant to the accession countries' central banks can be found in other chapters of this Annual Report.

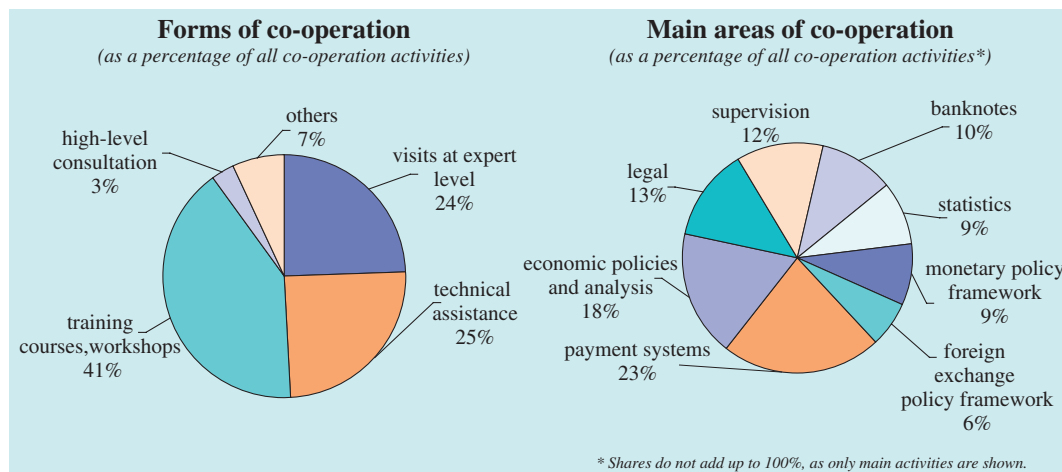
The annual Eurosystem seminar on the accession process – bringing together the Eurosystem and the governors of the 12 accession countries – represents the highest level of co-operation with the accession countries' central banks. After Helsinki in 1999 and Vienna in 2000, this year's seminar took place in Berlin in December and was jointly organised by the ECB and the Deutsche Bundesbank. The seminar focused on the structure and functioning of the financial sector in the accession countries, the impact of capital account liberalisation on the exchange rate strategies of the accession countries and ingredients for a successful catching-up process.

3.3 The Eurosystem's involvement in the Economic Dialogue between the EU and the accession countries

The Eurosystem is involved in the Economic Dialogue between the EU and the accession countries, established in early 2001 by the EU. This dialogue is not directly part of the

Chart 29

Co-operation between the Eurosystem and the central banks of accession countries in 2001



negotiations for EU membership, but is aimed at assisting the accession process by means of an in-depth exchange between EU institutions and the accession countries on macroeconomic policy and financial stability issues in the pre-accession phase. It is also intended to familiarise the accession countries with the EU procedures of mutual surveillance and policy co-ordination to which they will become subject upon joining the EU.

Within the Economic Dialogue framework, the EU, including the ECB and the NCBs, and accession countries met four times in 2001. They met twice at the EFC level (in Stockholm on 27 June and in Brussels on 27 November 2001) and twice at ministerial level (in Malmö on 21 April and in Brussels on 4 December 2001). In 2001 the Economic Dialogue aimed at discussing, inter alia, the accession countries' pre-accession economic programmes.

3.4 Strengthening working relations with other countries

The ECB also continued to develop its relations with central banks of those European countries outside the EU which are not at present negotiating EU accession, and central banks of key emerging markets in Asia and Latin America. The President and the

other members of the Executive Board visited a number of these countries and received delegations from their central banks. Furthermore, working relations at management/expert level have been established with a number of central banks in these regions. Issues frequently discussed at meetings are the economic situation, exchange rate policies and the role of the euro in the country in question.

Among neighbouring countries, contacts with the central banks of the Balkan countries, Russia and Turkey (a candidate country which is not yet negotiating EU accession) have played an important role. In the intensive bilateral discussions, the introduction of euro banknotes and coins figured prominently, given the widespread circulation of national banknotes issued by the euro area NCBs in these countries. In the Balkans, the ECB took part in activities organised by the Working Table on Economic Reconstruction, Development and Co-operation within the framework of the Stability Pact for South Eastern Europe. The ECB closely followed economic and financial developments in Turkey and established a more regular policy dialogue with its central bank on the occasion of the Turkish Governor's visit to the ECB. The ECB also started to strengthen working relations with central banks in the Mediterranean region.

Germany: **Destruction of national coins near Frankfurt**



Chapter VI

The cash changeover and the production and issue of euro banknotes

I Changeover to the euro banknotes and coins in 2002

In order to ensure a smooth changeover to the euro banknotes and coins, a Eurosystem Cash Changeover Co-ordination Committee (CashCo) was established in March 2001, comprising representatives from the ECB and one representative from each of the national central banks (NCBs) of the 12 participating Member States. The European Commission and Europol had observer status at CashCo meetings. Within the field of competence of the Eurosystem, the Committee bore overall responsibility for co-ordinating the introduction of the euro banknotes and coins and withdrawing the legacy currencies in the period up to the end of February 2002. It monitored the preparatory work relating to the issuance of, and changeover to, the euro banknotes and coins and established a Eurosystem-wide information exchange framework for the period prior to and following 1 January 2002.

I.1 The changeover inside the euro area

The Governing Council of the ECB agreed on certain Eurosystem-related provisions on the 2002 cash changeover in an ECB Guideline of 10 January 2001. In accordance with these provisions, frontloading by NCBs to credit institutions and sub-frontloading of banknotes and coins to professional target groups was allowed as from 1 September 2001. This four-month lead time was required in order to ensure that sufficient euro banknotes and coins were available for widespread circulation from 1 January 2002. The lead time permitted efficient transportation and logistics. In fact, the scale and timing of frontloading and sub-frontloading varied considerably from one country to another, depending on the national changeover scenario, the national infrastructure (e.g. the structure of the central bank branch network and its role in the currency supply, the storage facilities available in bank branches, etc.) as well as the size and geography of the country concerned.

In 11 countries the national authorities provided euro coins to credit institutions as from September 2001 because their bulk made them more difficult to transport than banknotes and their lower value meant that the risk to credit institutions was lower than for banknotes; in one country the frontloading of coins did not begin until December 2001. Five countries began frontloading banknotes in September 2001; the remaining seven countries postponed the distribution of banknotes until October, November or December 2001.

All 12 countries supplied credit institutions and retailers with both euro banknotes and coins prior to 1 January 2002. Moreover, all countries sub-frontloaded euro coins to the cash-operated machine industry in order that it could load machines with coins prior to €-day. In total, euro banknotes to a value of €133 billion were frontloaded to credit institutions, an amount corresponding to around 50% of the national banknotes in circulation at the end of 2001. As for coins, a total of 37.5 billion, worth €12.4 billion, were frontloaded by the end of 2001. This meant that, in terms of volume, around 80% of the banknotes and over 97% of the coins needed had been distributed to banks before 1 January 2002, which paved the way for a smooth changeover. Broadly speaking, sub-frontloading to professional target groups was also in line with initial forecasts and represented an overall amount of between 10% and 20% of the frontloaded amount.

According to the ECOFIN Council statement of November 1999, euro coins could be provided to the general public from mid-December 2001 in order to help people to become familiar with them and to reduce the stocks needed by retailers to provide change at the beginning of 2002. All euro area countries offered the public starter kits, and the demand for these was great. In a number of countries, the level of demand was such that banks were authorised to make up their own kits and even to sell some of

their bulk stocks. The countervalue of the starter kits ranged from €3.88 to €15.25 and in most cases corresponded to a national banknote denomination in order to facilitate the exchange. In one country, a small starter kit was also provided to each citizen free of charge. Distribution through a wide range of outlets started in three countries on 14 December 2002 and in the others on 15 or 17 December 2001. Overall, the general public acquired more than 150 million starter kits comprising over 4.2 billion coins worth €1.6 billion. This means that, on average, each member of the public had 14 coins at the beginning of 2002.

In addition, retailers were supplied with retail starter kits with countervalues ranging from €30.41 to €315.

Given that, in terms of transactions, most of the banknotes enter circulation via automated teller machines (ATMs), the quick adaptation of these machines was a key factor in the changeover. In total, more than 200,000 ATMs in bank branches and elsewhere (e.g. in shopping centres) had to be converted. The speed at which the ATMs were converted varied slightly from country to country depending on factors such as conversion capacity, location, number and type of ATMs. In addition, the policy with regard to ATMs which had not yet been converted by the time the euro banknotes and coins entered circulation varied slightly across the euro area. In six countries they were removed from service, whereas in four countries they continued dispensing national banknotes. Four days after the entry into circulation of the euro banknotes and coins, virtually all ATMs were issuing only euro. As a result, an average of 75% of cash transactions were taking place in euro by the end of the first week, and this figure was well over 90% by the end of the second week. Naturally, this figure varied from country to country and from sector to sector. In any case, euro banknotes and coins were introduced considerably faster than originally foreseen.

To achieve a smooth changeover, it was also essential to put the low-denomination euro banknotes (i.e. €5, €10 and €20) into circulation on a large scale at the beginning of 2002. This considerably reduced the need for retailers to hold large amounts of cash during the first few days of 2002. In all euro area countries one, two or three of the low-denomination euro banknotes were dispensed by ATMs at the start of 2002. In countries where welfare payments are made largely in cash, these transactions were effected in low denominations. Moreover, banks frequently paid out low-denomination euro banknotes over the counter. As a result, low-denomination banknotes (i.e. €5, €10 and €20) accounted for 82.4% of the total number of banknotes in circulation in early 2002 and for 43% of the circulation value. This far exceeded the proportion of national banknotes with a similar countervalue prior to the changeover.

As for the withdrawal of national coins, most national authorities encouraged the public to deposit hoarded coins at banks before the turn of the year in order to reduce the workload of banks, retailers and cash-in-transit companies during the dual circulation period; in addition, coins were collected through a range of charity schemes which had been introduced in some countries. At the same time, there was a considerable influx of hoarded national banknotes, particularly in high denominations. In total, national banknotes in circulation fell by €110 billion during the course of 2001 to €270 billion at the end of the year.

In conclusion, the changeover was an unprecedented undertaking, directly affecting the lives of over 300 million people in the 12 euro area countries. The financial institutions, cash-in-transit companies, the security forces, retailers and the cash-operated machine industry needed to be closely involved in the preparations at an early stage, as a smooth changeover could only be achieved in a short period of time through systematic and co-ordinated interaction between all the leading players.

However, the success of the euro cash changeover ultimately depended not only on the co-operation of all the professional parties directly involved, but also on the positive attitude of and swift acceptance by the public. In retrospect, it can be said that, given the scale of the task, the introduction of euro banknotes and coins went very smoothly and successfully.

1.2 The changeover outside the euro area

A significant number of banknotes issued by the NCBs of euro area countries were circulating outside the euro area, especially in the accession countries and other neighbouring countries. For example, it was estimated in a study relating to the mid-1990s that around 30% to 40% of Deutsche Mark banknotes in circulation were held outside Germany, with the majority probably held in eastern and south-eastern Europe (including Turkey). Every effort was therefore made to ensure that the cash changeover outside the euro area also proceeded smoothly. The framework for the changeover outside the euro area was built upon three pillars:

- In accordance with the ECB Guideline of 10 January 2001 stipulating certain provisions on the 2002 cash changeover, banks were allowed, under strict conditions, to distribute frontloaded euro banknotes to their branches and headquarters located outside the euro area as from 1 December 2001. In addition, the Guideline allowed frontloaded banks, from the same date, to sub-frontload to their subsidiaries outside the euro area, as well as to other banks with registered and/or head offices and branch networks outside the euro area. However, sub-frontloading to retailers was not allowed outside the euro area.
- The Governing Council decided in an ECB Guideline of 13 September 2001 on certain provisions on frontloading outside the euro area, that central banks and monetary

authorities of non-participating Member States and other countries could be frontloaded upon request as from 1 December 2001, subject to specific terms and conditions. All operational and practical arrangements for such frontloading were taken care of bilaterally by the euro area NCB concerned and the counterparty central bank. Central banks outside the euro area were allowed to sub-frontload credit institutions having their registered and/or head office in their respective jurisdictions as from 1 December 2001, in accordance with certain rules.

- The Governing Council decided that non-euro area credit institutions operating in the worldwide wholesale banknote market could be frontloaded by NCBs and were allowed to sub-frontload euro banknotes to their customer banks outside the euro area from 1 December 2001. The detailed terms and conditions, which were in principle the same as those imposed on foreign central banks, were also laid down in the ECB Guideline of 13 September 2001.

The introduction of the euro banknotes also proceeded smoothly outside the euro area. 26 central banks located outside the euro area, mainly in central and eastern Europe, the Mediterranean area and in Africa, were frontloaded. The total amount of euro banknotes provided to central banks and banks outside the euro area was some €4.6 billion.

1.3 Exchange of national banknotes at national central banks

The substitutability of national currency units between 1999 and 2002 is ensured by Article 52 of the Statute of the ESCB, which governs the exchange of banknotes denominated in the national currencies of the countries participating in the euro area. Since 1 January 1999, in accordance with a decision of the Governing Council, each participating NCB

or its authorised agent has been offering, at one location at least, to exchange the banknotes of other participating countries at the official conversion rate free of bank charges. The Governing Council decided to extend the Article 52 arrangement beyond 2001 until the end of March 2002.

Against this background, some 500 NCB branches throughout the euro area were involved in the exchange of national banknotes of other euro area countries. From a practical point of view, the exchange within the framework of Article 52 ran smoothly in

all the participating Member States from 1999 onwards.

In addition, the NCBs may repatriate the national banknotes of other participating countries, appoint an agent to perform this repatriation service on their behalf or use existing commercial repatriation channels. The value of banknotes repatriated to their respective issuing country under this arrangement between 1999 and the end of 2001 was €14.4 billion; the number of banknotes repatriated was 293.4 million.

2 Production of euro banknotes and coins

2.1 Production of banknote requirements for the launch

Each NCB was responsible for procuring euro banknotes to meet its national requirements for the launch. Estimates of the volumes needed by the NCBs were reviewed annually and most recently in late 2001 in order to take account of the actual demand during the frontloading phase. Estimates as at end-2001 amounted to some 15 billion banknotes, with a total face value of around €633 billion. 15 printing works were involved in the production of the banknotes.

Throughout the year, production progress was carefully monitored by the ECB in terms of both quantity and quality. During this period, the visual appearance of the banknotes was also regularly sampled. The ECB continued to audit the Quality Management Systems operating in the printing works and thus helped to ensure consistent quality. The manufacturers of cash handling machines, who have a special interest in the quality and consistency of euro banknotes, were involved in an extensive testing programme to help them adjust their sensors and machines in time for the launch.

2.2 Production of a Central Reserve Stock of banknotes to cover risks

A Central Reserve Stock of euro banknotes was established by the ECB as part of its euro launch risk management. The risks to be covered included production quantity or quality shortfalls due to unforeseen circumstances and a higher-than-expected demand for some euro denominations. Approximately 10% over and above the launch volume of 15 billion banknotes was produced for the Central Reserve Stock. The ECB was responsible for the procurement of these banknotes, which were produced in accordance with the same demanding standards as all other euro banknotes.

Some banknotes from this stock were used to meet additional commercial bank requirements during frontloading and helped the launch phase to go smoothly.

2.3 Support for the production of euro coins

The Member States are responsible for the production of euro coins. National estimates of the total volume needed for the launch amounted to more than 51 billion coins with a face value of around €16 billion. Production involved 16 mints in 12 countries.

The ECB acted as an independent assessor of euro coin quality. It assisted in the implementation and maintenance of a common quality management system in all mints. The performance of each mint was checked by conducting regular quality audits.

The quality of the coins was assessed on the basis of both monthly quality reports by the mints and the ECB's own measurements of reference coins. The decision-making bodies were given regular updates on the quality of euro coins.

3 Protection of euro banknotes against counterfeiting

3.1 Research and development

Research and development work aims to build technological "foundations" upon which the further development of the first banknote series will be based.

These activities are decentralised but are co-ordinated by the ECB. They are on the increase as the focus moves towards the post-launch period. The co-ordination of the research and development efforts of the NCBs, expert suppliers and the ECB was reviewed and improved in 2001 and further continuous improvement of the structure is expected in 2002.

The ECB is a member of various international central bank anti-counterfeit technical groups which are pursuing global initiatives.

3.2 Anti-counterfeiting activities

The European network of National Analysis Centres (NACs) was set up. The NACs are responsible for counterfeit analysis at a national level and for the transfer of data on counterfeit euro banknotes to the central database being established at the ECB. The staff of these centres have received training in the classification of counterfeit euro banknotes.

The Counterfeit Analysis Centre (CAC) at the ECB has been operating since the beginning of

2002. It is responsible for classifying the new euro counterfeits received from the NACs. Its staff, comprising counterfeit experts, technical specialists and administrative personnel, have been recruited and its equipment has been procured. The CAC now has the resources it needs to analyse counterfeits and to distinguish between counterfeit and genuine banknotes.

Progress towards establishing the Counterfeit Monitoring System (CMS), including a database that will store all the technical and statistical data on counterfeit euro banknotes and coins, has been slower than expected on account of technical difficulties. Accordingly, some of the functions of the system are not yet available. In the interim, other procedures have been established to ensure an efficient use of the information which is being stored in the database.

The most important provisions in relation to the CMS are laid down in the Decision of the European Central Bank of 8 November 2001 on certain conditions regarding access to the Counterfeit Monitoring System (CMS).

A co-operation agreement has been concluded between the ECB and the European Police Office (Europol) on measures to combat threats arising from euro counterfeiting and to enhance and co-ordinate assistance in this area provided by either party to the national and European authorities and to international organisations.

4 Issue of euro banknotes

The Governing Council of the ECB has decided that the ECB and the 12 NCBs of the euro area shall issue euro banknotes.

It was agreed that, while 92% of euro banknotes would be issued by the 12 NCBs, the remaining share would be issued by the ECB as from the beginning of 2002. Each NCB will show in its balance sheet a share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The

total banknote issue of the Eurosystem will be shown in its consolidated weekly financial statement, as published by the ECB.

In accordance with the principle of decentralisation for the execution of Eurosystem operations, the 12 NCBs of the euro area will put into and withdraw from circulation, and will physically process, all euro banknotes, including those issued by the ECB.

5 The Euro 2002 Information Campaign

As part of the preparations for the introduction of the euro banknotes and coins, the ECB and the 12 NCBs of the euro area have been conducting a "Euro 2002 Information Campaign". The Governing Council approved a campaign budget of €80 million, and this was reinforced by additional funds made available by NCBs.

The Eurosystem's campaign has been closely co-ordinated with similar initiatives undertaken by national authorities and the European Commission, and focused on the following key messages:

- the appearance of the banknotes and coins;
- the security features of the banknotes;
- the denominations; and
- the overall changeover modalities.

Three principle channels have been used to deliver these messages: a mass media campaign, public relations and press activities, and co-operation with other groups active in this area (the Partnership Programme). All elements of the campaign have been supported by a dedicated website, www.euro.ecb.int, which, as with all campaign materials, is in the 11 official languages of the European Community.

As 2001 progressed and public interest in the euro banknotes and coins grew, so the campaign became more high-profile. The unveiling of the security features to the

general public on 30 August 2001 saw the campaign enter a new phase, with new materials made available, incorporating, inter alia, the final visual appearance of the euro banknotes and their security features.

The mass media campaign

The mass media campaign was also launched on 30 August 2001. It comprised TV spots and print adverts which were run both nationally and internationally across the euro area. In some cases these efforts were complemented by additional mass media activities by NCBs.

National audiences were addressed in their respective languages via five TV spots and eight complementary print adverts, which were identical in all the euro area countries. They provided both general and detailed information on the banknotes and coins as well as on the security features of the banknotes. The spots were shown on 50 TV stations and the print adverts appeared in over 250 publications. The campaign came to an end with a final print burst throughout the euro area in late January/early February 2002.

At a global level, the campaign was aimed at international business executives and visitors to the euro area. Six international TV stations broadcast specially adapted versions of the TV spots, and nine international publications

and 14 in-flight magazines featured the print adverts. In addition to this, an airport campaign in 12 euro area airports, plus London Heathrow, ensured that visitors on their way to the euro area were exposed to the core messages of the campaign.

Some 200 million copies of a public information leaflet, *Getting ready for the euro – Your guide to the euro banknotes and coins*, containing authoritative information on the euro banknotes and coins, were produced to support the mass media campaign. For the euro area alone, 26 versions of the leaflet were needed to cover the official languages and changeover modalities of each country. Distribution throughout the euro area took place to almost every household between October and December 2001, using various channels, but mostly national postal systems or door-to-door delivery. In order to make the information contained in the leaflet available to people outside the euro area, an international version was translated into 23 other languages and made available to partners via the campaign's website. Moreover, some NCBs reinforced this effort by printing and distributing the leaflets in several languages in addition to the official Community languages.

PR and press activities

The public relations and press programme for the Euro 2002 Information Campaign comprised three main activities throughout 2001: an editorial countdown calendar, Euro 2002 Information Campaign conferences and the children's competition.

Under the editorial countdown calendar, media kits were sent to over 4,500 media contacts on six key dates falling on and between €-365 and €-day itself. Each kit provided comprehensive information on the euro banknotes and coins and changeover data, and in some cases the kits contained additional materials, such as video tapes and images, to ensure that campaign messages could be passed on to the public via the media.

A series of 11 Euro 2002 Information Campaign conferences, hosted by the NCBs of the euro area in their respective countries, brought together over 5,000 key players prior to the cash changeover. As well as providing a forum for discussion on changeover issues, each conference generated media coverage ensuring, once more, that campaign messages were spread further afield.

Children were identified as a key target group for the Euro 2002 Information Campaign, with the result that a specific project was created to inform and engage them. For the *Be a Euro SuperStar* competition, over 7 million posters containing information on the euro banknotes and coins were distributed to primary schools across the euro area. The poster, together with the children's zone on the ECB's euro website, featured a multiple-choice competition which was open to children between the ages of eight and twelve. Some 300,000 children entered the competition and the 24 winners – two from each euro area country – were invited to Frankfurt to receive their prizes, a full set of euro banknotes in a specially designed commemorative case and a laptop computer, from the President of the ECB at a media event on 31 December.

The end-of-year event, like the earlier launch of the campaign slogan "*the EURO. OUR money*" on 1 March 2001 and both the unveiling of the final visual appearance of the euro banknotes and the launch of the mass media campaign on 30 August, attracted a large number of media representatives and generated positive press and TV coverage.

Partnership Programme

The overall aim of the Partnership Programme was to encourage those private and public sector organisations interested in making information on the euro banknotes and coins available to their customers and staff to join the programme and benefit from the materials provided by the campaign. By the end of the year, the Eurosystem had over

3,000 national, European and international partners. The greatest demand for materials, which could be adapted and co-branded to suit partners' needs, came after the unveiling of the final visual appearance of the euro banknotes and their security features on 30 August. Several million posters and leaflets were produced by the Eurosystem and its partners, in addition to master copies which were available from the campaign's website.

Training materials for professional cash handlers were also distributed via the Partnership Programme and NCBs. 230,000 training kits were produced, each containing a training brochure with in-depth descriptions and pictures of the coins, banknotes and their security features, a training video and a

CD-ROM, which included an interactive presentation. In addition, over 6 million brochures for trainees were distributed, containing information on the main security features. This material was used as part of an extensive regime of training courses, organised nationally by the NCBs and also outside the euro area, for experts who, in turn, trained thousands of cash handlers in various fields, including the financial and retail sectors.

Although most visible in the run-up to €-day, the campaign continued to run into the early part of 2002. The website will remain online for some time before eventually being transferred to the ECB's permanent website.



Spain: Euro banknotes wrapped in cellophane at the Banco de España in Madrid

Chapter VII

Payment and securities settlement systems

The Eurosystem carries out its task of promoting the smooth operation of payment and settlement systems through the provision of payment and securities settlement facilities, as well as by overseeing the euro payment and settlement systems and acting as a catalyst for change. First, the Eurosystem is involved operationally by running a real-time gross settlement system for large-value payments in euro, the Trans-European Automated Real-time Gross settlement Express Transfer (TARGET) system, and by providing a mechanism for the cross-border use of collateral (the correspondent central banking model, or CCBM). Second, the Eurosystem sets standards aimed at ensuring the soundness and efficiency of systems handling euro transactions and assesses the continuous compliance of euro payment and settlement systems with these standards. Third, the Eurosystem acts as a catalyst for change by promoting efficiency in payment systems and the adaptation of the payment and settlement infrastructure to the needs of the single currency area.

I Operations of the Eurosystem's payment and settlement systems

I.1 The TARGET system

In 2001, TARGET processed, in terms of value, almost 75% of the total turnover of large-value payments in euro. TARGET had 1,569 direct participants, while the number of indirect participants amounted to more than 5,000.

TARGET continued to fulfil the objectives for which it was conceived, namely to serve the needs of the ECB's monetary policy, to increase the efficiency of cross-border payments in euro, and to provide a reliable and safe mechanism for the settlement of payments.

On 19 November 2001 the TARGET 2001 upgrade went live successfully. The upgraded software included only minor modifications to the data format of payment messages used in TARGET. In the United Kingdom, NewChaps was introduced at end-August 2001, providing a common IT platform for sterling and euro RTGS participants. Furthermore, on 5 November 2001 the Deutsche Bundesbank successfully launched its RTGS^{plus} system, which now constitutes the new German component of TARGET. Upon the introduction of RTGS^{plus}, as a step towards consolidating the large-value payment systems infrastructure within the euro area, the hybrid system Euro Access Frankfurt (EAF) was shut down. Furthermore, the Danish TARGET component was replaced

by a new system: KRONOS commenced operations on 19 November 2001.

TARGET operations in 2001

In 2001 a daily average of 211,282 payments were processed by TARGET as a whole (i.e. both cross-border and domestic payments), with a total value of €1,299 billion. This represents an increase of 12% in terms of the number of payments and of 26% in terms of value.

Table 14
Payment traffic in TARGET *)

| Volume | 2000 | 2001 | Change, % |
|----------------------------|------------|------------|-----------|
| Overall | | | |
| Total | 47,980,023 | 53,665,552 | 12 |
| Daily average | 188,157 | 211,282 | 12 |
| Domestic | | | |
| Total | 37,811,112 | 42,166,173 | 12 |
| Daily average | 148,279 | 166,009 | 12 |
| Cross-border | | | |
| Total | 10,168,911 | 11,499,379 | 13 |
| Daily average | 39,878 | 45,273 | 14 |
| Value, EUR billions | | | |
| Overall | | | |
| Total | 263,291 | 330,031 | 25 |
| Daily average | 1,033 | 1,299 | 26 |
| Domestic | | | |
| Total | 153,253 | 201,428 | 31 |
| Daily average | 601 | 793 | 32 |
| Cross-border | | | |
| Total | 110,038 | 128,602 | 17 |
| Daily average | 432 | 506 | 17 |

*) 255 operating days in 2000, compared with 254 in 2001.

Table 15
Peak traffic in TARGET in 2001

| Volume | | |
|----------------------|---------|---------|
| Overall | 380,146 | 28 Dec. |
| Domestic | 318,173 | 28 Dec. |
| Cross-border | 63,159 | 20 Feb. |
| Value (EUR billions) | | |
| Overall | 2,040 | 28 Dec. |
| Domestic | 1,479 | 28 Dec. |
| Cross-border | 751 | 29 June |

In terms of value, TARGET cross-border traffic in 2001 represented 39.0% of total TARGET traffic, compared with 41.8% in 2000. In terms of volume, it represented 21.4% of total TARGET traffic, compared with 21.2% in 2000. Of cross-border TARGET payments, 96.5% in terms of value and 60.8% in terms of volume were interbank transactions, with the remainder being customer payments. The average value of a cross-border interbank payment was €17.7 million and the average value of a cross-border customer payment was €1 million.

Information on peak traffic days in terms of volume and value is provided in Table 15.

Generally, TARGET participants submit their payments early on in the day. By 1 p.m. more than 50% of cross-border turnover, and almost 75% in terms of volume, has already been settled in TARGET (see Chart 30). This contributes substantially to the smooth functioning of the system and to the reduction of the risk of gridlocks in the event of liquidity strains late in the day.

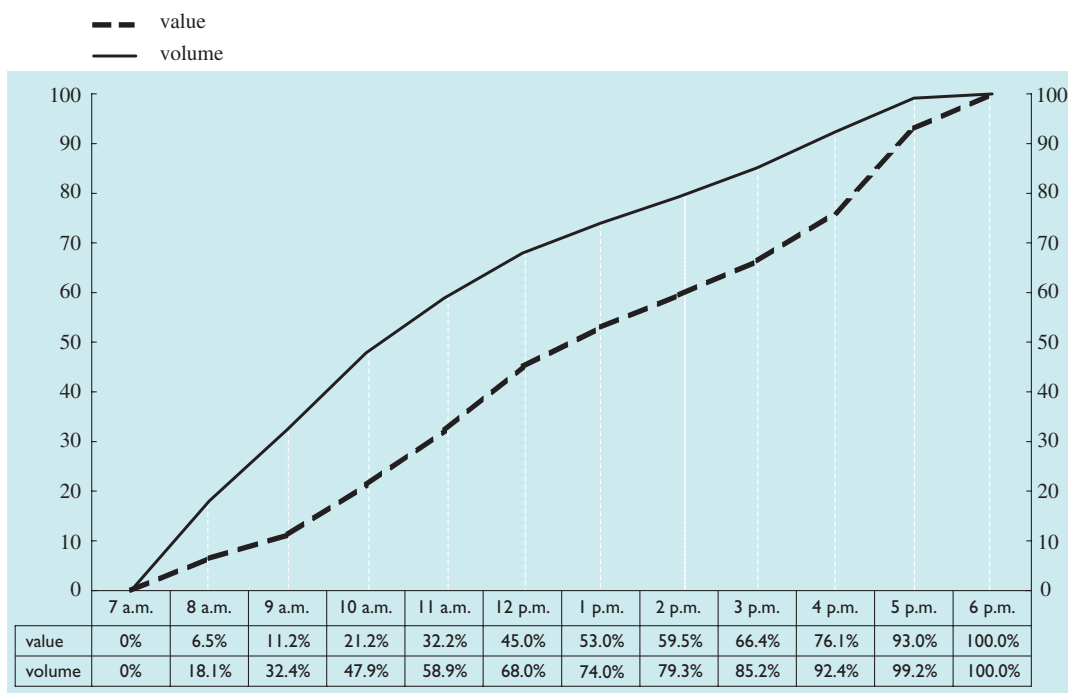
Further statistics can be found on the ECB's website at www.ecb.int by clicking on "Payment statistics" in the TARGET section.

TARGET availability

TARGET availability continued to improve in 2001 as the number of incidences of downtime decreased by 8% compared with 2000. TARGET availability reached 99.74% in December. TARGET contingency measures

Chart 30
Intraday distribution of TARGET cross-border payments – 2001

(in percentages)



are being reviewed with the aim of further improving their effectiveness and facilitating the orderly settlement of time-critical payments, mainly related to the forthcoming start of operations of CLS Bank.

Relations with TARGET users

In 2001 the ECB and the NCBs maintained an ongoing dialogue with TARGET users. Regular meetings of the national TARGET user groups were held. Two meetings of the Contact Group on Euro Payments Strategy (COGEPS) were also held at the ECB that year. This group brings together representatives of the Eurosystem and market participants. Its aim is to facilitate dialogue on several topics, including TARGET-related issues. In 2001 this ensured that the NCBs and the ECB were better able to respond to participants' business needs.

Other issues

In 2001 TARGET was closed on New Year's Day, Good Friday, Easter Monday, 1 May (Labour Day), Christmas Day and 26 December, as well as on Saturdays and Sundays. In addition, the system was closed on 31 December 2001 in order to safeguard the smooth conversion of retail payment systems and internal bank systems to the euro. As from 1 January 2002, the long-term TARGET calendar will apply (see also "General information" in the TARGET section of the ECB's website).

In line with the policy of transparency, on 26 April 2001 the ECB published Guideline ECB/2001/3 on TARGET. This document, which represents the core of the legal framework of TARGET, is available on the ECB's website as well as in the Official Journal of the European Communities, L 140, 24 May 2001 (see "Legal documents" in the "Publications" section of the ECB's website).

In May 2001, the first "TARGET Annual Report" was published by the ECB. It covers operations in both 1999 and 2000, and includes the business and technical performance of TARGET, together with a description of major developments and future prospects.

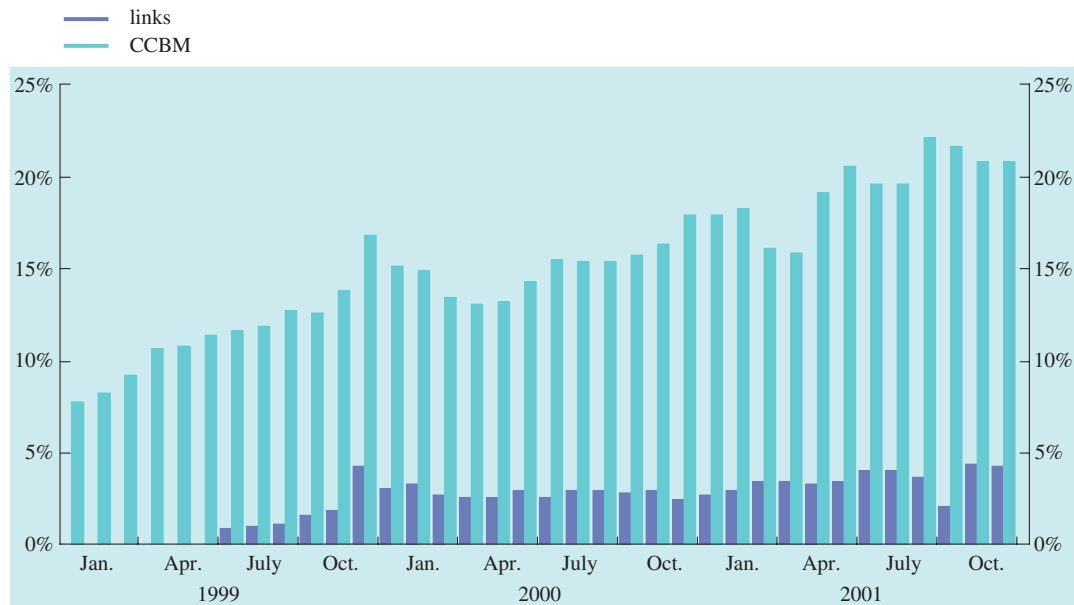
1.2 The correspondent central banking model (CCBM)

The CCBM was designed in the preparatory stages of Monetary Union to enable the cross-border use of collateral by participants in monetary policy and intraday credit operations. It was conceived as an interim solution until such time as the market developed alternatives.

In 2001 the CCBM remained the main tool for the cross-border transfer of collateral to the Eurosystem. The amount of collateral under custody through the CCBM increased from €124 billion at the end of 2000 to €157 billion at the end of 2001. The link arrangements between securities settlement systems (SSSs) for the transfer of securities currently constitute the only alternative to the CCBM. Although more than 60 links between SSSs have been established and are eligible for Eurosystem operations, their use has not been extensive. Chart 31 presents the developments in cross-border collateral through the CCBM and the links as a percentage of the total collateral provided to the Eurosystem.

In a survey organised by the Eurosystem,¹ market participants referred mainly to two factors to explain the limited use of links. First, the counterparty needs to transfer to the domestic SSS the part of its holdings to be used for central bank operations, thus moving them from their usual settlement environment. Second, market participants

¹ "Cross-border use of collateral: a user's survey", ECB, February 2001.

Chart 3 I**Cross-border collateral as a percentage of total collateral provided to the Eurosystem**

already seem to be familiar with the procedures of the CCBM, which allows for the use of all eligible assets; the adoption of

new procedures would require an investment, which may not be justified if consolidation takes place within the industry.

2 General issues of payment systems oversight

In February 2001, the Governing Council of the ECB adopted the Core Principles for Systemically Important Payment Systems (Core Principles) in the set of minimum standards which the Eurosystem uses for its common oversight policy on payment systems. The Core Principles were elaborated by the G10 Committee on Payment and Settlement Systems (CPSS) in order to help maintain financial stability by strengthening the financial infrastructure. They comprise principles, good practices and guidelines which should govern the design and operation of payment systems and suggest the key characteristics which all systemically important payment systems should satisfy. In view of its statutory task to promote the smooth operation of payment systems, the Eurosystem will assess all systemically important payment systems in the euro area against the Core Principles by the end of 2002.

In 2001, at the request of the ECB, the IMF prepared Reports on the Observance of Standards and Codes (ROSCs) for the euro area in the context of its Financial Sector Assessment Program (FSAP). The participation of the ECB in the preparation of these ROSCs reflects its commitment to meet international standards and codes and to “lead by example” in their implementation. This is based on the conviction that compliance with internationally agreed standards and best practices is key to strengthening the global financial system and to ensuring financial stability.

In the field of payment systems, the assessments by the IMF covered transparency in payment systems policy and compliance with the Core Principles of the two systemically important payment systems with an EU-wide reach, namely TARGET and the Euro I system of the Euro Banking

Association (EBA).² The IMF acknowledged that the Eurosystem maintains a high level of transparency in payment systems policy. The IMF recognised that TARGET has successfully fulfilled the policy goals for which it was set up and largely meets the needs of the market. TARGET complies fully with six of the Core Principles and broadly or partly meets the requirements of three further Core

Principles. One of the Core Principles is not applicable to TARGET. The Eurosystem is now focusing on further enhancements of the compliance of TARGET with those Core Principles which have not yet been met in full (for further details, see Box 9 in Chapter V). The Euro I system, which is overseen by the ECB, was found to be fully compliant with all Core Principles.

3 Large-value payment systems

3.1 Developments in other large-value payment systems in euro

In 2001 the five large-value net settlement systems in euro continued to operate smoothly. They are the Euro I system of the EBA, Euro Access Frankfurt (EAF) in Germany, Paris Net Settlement (PNS) in France, the Servicio de Pagos Interbancarios (SPI) in Spain and the Pankkien On-line Pikasiirot ja Sekit-järjestelmä (POPS) in Finland. Upon the introduction of RTGS^{plus}, the new German TARGET component, on 5 November 2001, the EAF system ceased to exist.

These large-value systems in euro have proven to be suitable alternatives to TARGET for the processing of certain types of payments. In 2001, the largest of the systems, Euro I, processed some 113,000 transactions per day with an average daily value of €205 billion. Taken together, the five systems processed approximately the same volume of payments as the TARGET system, but only about one-third of the value of the TARGET system, because, apart from monetary policy related payments, time-critical, very large-value payments in connection with money market operations are usually routed through TARGET.

Although interbank payments in 2001 accounted for more than 80% of the value processed by the five large-value systems, the share of low-value customer payments rose in all systems. More than half of the payments processed in volume terms were customer

payments, typically with a value of below €50,000. This development can be explained by a shift from correspondent banking channels towards payment systems and is consistent with a heightened need for efficient cross-border retail payments within the euro area.

3.2 Continuous Linked Settlement (CLS)

CLS is a system designed to settle foreign exchange transactions on a payment-versus-payment basis on the books of CLS Bank, a private bank incorporated in New York. CLS is a private sector solution to the central banks' demands for risk reduction in foreign exchange settlement. After some delays in the system's development, CLS Bank is scheduled to start operations with seven currencies from mid-2002.

As foreseen by the framework for co-operative oversight established by the Lamfalussy report³, the Federal Reserve System has the lead oversight responsibility for the CLS system and has involved the central banks of the other prospective eligible currencies in the system design. The Bank of England will be the designating authority under Directive 98/26/EC of the European

² The IMF published the assessments in October 2001; they are available on the IMF's website (<http://www.imf.org>).

³ "Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries", BIS, November 1990.

Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems. Since the euro will be one of the currencies to be settled in the system from the outset, the Eurosystem has followed the development of the system closely and liaised with CLS Bank and with the other central banks involved in the co-operative oversight of the system. In addition, representatives of the Eurosystem met twice during 2001 with the euro area shareholders of CLS to discuss liquidity

management and operational issues. The ESCB, together with commercial banks, has drawn up recommendations for CLS payments in euro. These recommendations, which can be downloaded from on the ECB's website (www.ecb.int), emphasise that banks should prepare their payments to CLS Bank as soon as possible in the morning in order to allow time to deal with contingency situations, and that CLS payments should be given the highest priority.

4 Retail payment systems

4.1 Final changeover of retail payment systems to the euro

During 2001, the Eurosystem monitored the preparedness of retail payment systems for operations in euro from the start of 2002. This showed that the cash changeover was not expected to represent a major issue for retail payment systems and cashless payment instruments. However, some issues remained in relation to the preparation of automated teller machines (ATMs) and point of sale (POS) terminals in a few countries. These issues were successfully addressed before the final changeover. For more information on the euro cash changeover see Chapter VI.

4.2 Developments in the area of cross-border retail services

In pursuing its objective to create a single payment area for the euro, the Eurosystem continued in 2001 to act as a catalyst for improvements in the area of cross-border retail payment services, so that such services would eventually be provided as safely, cheaply and efficiently as domestic services. The ECB reaffirmed the policy stance of its 1999 report entitled "Improving cross-border retail payment services in the euro area – the Eurosystem's view" in an article in the February 2001 issue of the ECB Monthly Bulletin entitled "Towards a uniform service level for retail payments in the euro area". It

organised various meetings and collaborated intensively with banks, payment systems operators and the European Credit Sector Associations to help the industry fulfil the objectives set out in the 1999 report by 2002. In the report "Towards an integrated infrastructure for credit transfers in euro", published in November 2001, the Eurosystem reviewed ways to remove the remaining obstacles identified as those incurring high costs for cross-border credit transfers. It proposed different technical options which banks could choose to implement in order to establish an efficient interbank infrastructure for cross-border retail credit transfers. The report suggests a "road map" to which banks should commit in order to be able to decrease the prices of cross-border payments to the level of prices of domestic payments by the end of 2004.

The fact that charges for cross-border retail credit transfers have remained persistently high over the years prompted the European Parliament and the Council to adopt Regulation (EC) 2560/2001 of 19 December 2001 on cross-border payments in euro. It obliges banks to reduce charges for cross-border payments of up to €12,500 (€50,000 as of 1 January 2006) to the level of those for domestic payments. The Regulation applies to card payments and ATM withdrawals as from 1 July 2002 and to cross-border credit transfers as from

1 July 2003. In October 2001, the ECB issued an Opinion on the draft regulation, stating that it shared the general objective of the regulation but had reservations about potential negative side effects of a regulation.

4.3 EBA initiatives

In November 2000 the EBA launched the STEP 1 initiative (the acronym "STEP" being derived from "Straight-Through Euro Processing") for the processing of low-value customer payments. The number of STEP 1 banks increased from 21 when the service was first launched to 65 at the end of 2001, and the volume and value of payments processed by the system also tripled to more than 7,100 payments per day for a total average daily value of €79.3 million.

In 2001 the EBA presented a draft scheme for a pan-European interbank processing system for retail payments. The new system, called STEP 2, further develops the STEP 1 service and is a response to the Eurosystem's objective of improving cross-border retail services in the euro area. STEP 2 will provide an automated clearing service, which sorts the aggregated payment files of each sending participant into separate files for the individual addressed participants. These payment files are settled via a bank participating in the Euro 1 large-value payment system. The EBA intends to implement the STEP 2 system by December 2002.

4.4 Electronic money and investigations in e-commerce and e-payments

In 2001 the Eurosystem extended its attention to new developments in the area of

electronic payments (i.e. payments over the internet), triggered by the expansion of e-commerce and other initiatives. The Eurosystem started to analyse whether the traditional roles of the central bank with regard to payment systems and payment instruments, i.e. the maintenance of systemic stability, the promotion of efficiency and security and the safeguarding of the monetary policy transmission mechanism, were affected by these new developments and, if so, to what extent. As the issue of trust (legal certainty, security of transactions, etc.) is essential to e-commerce, the Eurosystem started to analyse the "trust services" related to the open network environment, such as possible applications of the Public Key Infrastructure (PKI) within the payment systems sector.

The Eurosystem also continued to monitor the developments of e-money schemes and their implications for central banks. In particular, the different technical security approaches for e-money schemes were analysed from an oversight perspective. It is currently being considered whether the ECB's "Report on electronic money" (1998) and, more precisely, the third minimum requirement of that report concerning the technical security of e-money schemes, could be developed in more detail, with a view to establishing a common technical security framework for e-money schemes. Particular attention is being paid to market initiatives, which provide a security framework consisting of security objectives and requirements, independent of the underlying technology that is used.

5 Securities clearing and settlement systems

The Eurosystem has a general interest in the correct functioning of securities clearing and settlement systems. Indeed, the inappropriate functioning of these systems might have an

impact on two core responsibilities of central banks, namely ensuring the smooth functioning of payment systems and the implementation of monetary policy.

Moreover, some NCBs operate securities settlement systems (SSSs) or are explicitly in charge of the respective oversight.

In principle, securities trades agreed by two parties lead to the delivery of the securities on the one hand and to the underlying payment on the other. These activities are carried out by central institutions such as SSSs. Obligations by participants in SSSs are sometimes calculated beforehand by clearing houses. Clearing houses that interpose themselves as buyer to the seller and as seller to the buyer are called central counterparties. Disruptions in SSSs may impede the smooth functioning of financial markets and, with the implementation of delivery-versus-payment mechanisms, are automatically transmitted to the payment system. All Eurosystem credit operations are collateralised, with their execution dependent on the timely delivery of assets mainly transferred and settled by these institutions.

5.1 Clearing

The Eurosystem has been carefully monitoring and analysing the consolidation process in central counterparty clearing because of the possible implications for the smooth execution of monetary policy operations, the effective functioning of payment and settlement systems and the stability of the financial markets in general. The consolidation process⁴ adds to the complexity of the issue: on the one hand, consolidation in central counterparty clearing could help to increase efficiency in the clearing and settlement of securities; on the other hand, the potential systemic consequences of a central counterparty's failure increase with its size. In this regard, a number of issues are relevant. On 27 September 2001, the ECB released the Eurosystem's policy line with regard to consolidation in central counterparty clearing, stating the following.

First, it is essential that effective standards for risk management be established for central counterparties.

In addition, currency areas have traditionally developed their own domestic infrastructures in terms of payment systems, securities settlement systems, stock exchanges, etc. In this regard, it is important to distinguish between "domestic" central counterparties, on the one hand, and "international" central counterparties, on the other. A "domestic" central counterparty mainly handles assets denominated in one currency. The logical geographical scope for any market infrastructure handling mainly securities and derivatives denominated in euro is the euro area. Given the potential systemic importance of securities clearing and settlement systems, this "domestic" infrastructure should be located in the euro area. In addition, the existence of a domestic infrastructure should not prevent the emergence of "international" infrastructures handling several currencies, including the euro, at the same time.

Moreover, consolidation in central counterparty clearing could not only facilitate integration, but may also help to reduce the cost of clearing by making use of economies of scale and network externalities. Unless there are clear signs of market failure, the process of consolidation of central counterparty clearing infrastructure should be driven by the private sector, but public authorities can help by removing unfair and unjustified barriers to integration and to competition, such as legal difficulties and a lack of standardisation.

Furthermore, the Eurosystem has an interest in the efficiency of market structures. Whatever the final architecture, it is crucial that market participants have open and fair access to all systems along the "value chain" (i.e. trading, clearing and settlement).

Finally, the Eurosystem supports co-operation in central counterparty clearing at a global level and should be involved in monitoring global multi-currency systems handling euro.

⁴ Consolidation may be achieved through various means, such as interoperability, alliances, joint ventures and mergers.

5.2 Settlement

In 1998 the ECB adopted standards for SSSs and links between SSSs, which must be met by those systems if they are to be used in ESCB credit operations. The standards prevent inappropriate risks from being assumed when conducting credit operations, ensuring a common level of safety for securities settlement related to the provision of collateral. SSSs and their links are assessed against the standards on a regular basis. On 3 July 2001, the Governing Council approved five additional links between SSSs, thus bringing the total number of currently eligible links to 66. The new eligible links are from SCLV (Spain) to Necigef (the Netherlands), Necigef to SCLV, Euroclear (Belgium) to Crest (the United Kingdom), Crest to Euroclear, and Monte Titoli (Italy) to Clearstream (Luxembourg).

Some SSSs are involved in cross-border consolidation processes. Nonetheless, apart from the transfer in December 2000 to Euroclear of the settlement function previously carried out by the Central Bank of Ireland Securities Settlement Office, these agreements have not yet resulted in a reduction in the number of systems in Europe.

5.3 Co-operation with the Committee of European Securities Regulators

In October 2001 the Governing Council and the Committee of European Securities Regulators agreed to work together on issues of common interest in the field of securities clearing and settlement systems. This co-operation is aimed at establishing standards and/or recommendations at the European level. A common approach will contribute to the creation of a level playing-field for the providers of securities clearing and settlement services and help to overcome the significant heterogeneity within the legislative frameworks of European countries.

The report entitled "Recommendations for Securities Settlement Systems" by the Joint Task Force of the Committee on Payment and Settlement Systems of the G10 central banks (CPSS) and the International Organization of Securities Commissions (IOSCO), released in November 2001, covers SSSs in both industrialised and developing countries. It was regarded as a valid starting-point for an assessment of the need to adopt more precise recommendations at the European level.

6 Co-operation with accession countries and other activities

6.1 Co-operation with accession countries

The Eurosystem continued to strengthen its co-operation with accession countries in the field of payment and settlement systems. Further bilateral contacts, including the delivery of speeches and presentations, and working relationships with accession country central banks were established and maintained throughout the year. The ECB hosted a multilateral meeting, involving all EU and accession country central banks. As a follow-up to this meeting, the ECB, in co-operation with EU and accession country central banks, worked on producing comprehensive documentation aimed at providing guidance, in the field of payment

and settlement systems, on the accession process.

The ECB was involved in the organisation of the Central and Eastern European Central Securities Depositories Association conference on securities settlement systems in central and eastern European countries, which took place in Budapest in March 2001. The conference was attended by officials from central banks, securities regulators and central securities depositories.

From 3 to 5 September 2001 the ECB held a seminar on payment systems for central bankers from accession countries, other countries of eastern Europe, the Mediterranean region, central Asia and the

Middle East. The seminar provided participants with an overview of payment and securities settlement systems in the EU as well as with information about the activities of the Eurosystem in these areas.

The ECB also co-operated closely with the European Commission by participating in working visits of accession country delegations to the Commission. During such visits, practical issues are discussed regarding the implementation of EC Directives and Recommendations on payment and settlement systems in accession countries' national legislation.

Furthermore, work was initiated on the preparation of an update of the 1999 report entitled "Payment systems in countries that have applied for membership of the European Union" (the "Accession Country Blue Book"). It is expected to be published in the second half of 2002 and will provide an updated descriptive guide to the payment and securities clearing and settlement systems operating in accession countries, including updated statistical information.

Further information on the ECB's relations with accession countries is provided in Chapter V.

6.2 Other activities

On 7 February 2001 the ECB hosted a conference with the title "How to establish a domestic retail payment infrastructure for the euro area". The objective of the conference was to promote a strategic euro area view for the development of retail payments. It served to create awareness among market participants of their role in contributing to a new retail payments infrastructure for the single payment area.

In June 2001 the ECB released the third edition of the publication "Payment and securities settlement systems in the European Union", also known as the "Blue Book", with an updated description of the major payment and securities settlement systems operating in the Member States of the European Union and updated statistics. The newly introduced chapter on the euro area describes aspects and features of payment and securities settlement systems which are common or relevant to the euro area as a whole. It also describes the common EU legal and regulatory framework and focuses on the roles of the ECB and the Eurosystem.



Portugal: (right) **An armoured truck leaving the Portuguese printing works with a consignment of euro banknotes**
(left) **Guards securing the street for a cash transport**

Chapter VIII

Financial stability and prudential supervision

I Arrangements for financial stability and prudential supervision

The institutional arrangements for prudential supervision have recently been revised or debated in a number of Member States. In some cases, the proposals envisaged a reduced role of central banks in prudential supervision, while increasing the scope of responsibility of separate supervisory agencies. Nevertheless, at present, in ten out of twelve euro area countries, national central banks (NCBs) are either directly responsible for prudential supervision or have close institutional links with the separate supervisory agency, or else are strongly involved in the operational performance of supervisory tasks. The Eurosystem strongly supports a continued, and even reinforced, role of NCBs in prudential supervision. This position, which was communicated to the public,¹ is based on an assessment of the main changes in the institutional framework and in financial markets prompted by the introduction of the euro.

Two of the main arguments in favour of granting supervisory responsibilities to an agency outside the central bank lose most of their force in the institutional setting of Stage Three of Economic and Monetary Union (EMU). First, the alleged potential for conflicts of interest between supervisory and monetary policy objectives is smaller in the Eurosystem. The monetary jurisdiction – the euro area – no longer coincides with the supervisory one, i.e. national institutions and markets. Thus, no conflict can emerge at the national level, since NCBs no longer have any independent control over money creation. Second, the argument that assigning the two functions to the same authority would create an excessive concentration of power also loses ground in a setting in which monetary policy decisions reside with the Governing Council of the ECB, beyond the exclusive control of NCBs. By contrast, the arguments in favour of entrusting central banks with supervisory responsibilities have strengthened. EMU has changed the nature and scope of systemic risk, increasing the likelihood that disturbances originating in or

channelled through wholesale and capital markets or market infrastructures will extend beyond national borders. The contribution made by the Eurosystem to monitoring and controlling systemic risk on a euro area-wide basis will be greater if NCBs are more strongly involved in prudential supervision. In carrying out their prudential supervisory functions, the NCBs would in turn benefit from their knowledge – which they have acquired as components of the Eurosystem – of area-wide developments both in money and securities markets and in market infrastructures. In addition, the trend towards internationalisation and conglomeration of financial activities raises important issues as to the systemic concerns created by large and complex multinational institutions. Hence, an institutional framework within which the ECB has responsibilities for monetary policy and NCBs have extensive supervisory involvement in domestic markets, and where co-operation is reinforced at an area-wide level, would seem appropriate in order to tackle the changes triggered by the introduction of the euro. These arguments are also reflected in the Opinions delivered by the ECB, in accordance with Article 105 (4) of the Treaty, on the draft laws on the institutional structure for financial supervision in Austria and in Germany.²

The debate on the adequacy of institutional arrangements for financial stability is also being conducted at the EU level. The Economic and Financial Committee (EFC) monitored the implementation of the recommendations made in the “Report on Financial Stability” issued in April 2000, which called for an enhancement, through intensified co-operation, of the operational functioning of the arrangements for financial stability. The EFC also examined the issue of financial crisis management, which was not specifically

¹ See European Central Bank, “The role of central banks in prudential supervision”, March 2001.

² See the “Publications – Legal documents” section of the ECB’s website.

addressed in the aforementioned report. The outcome of this work is the "Report on Financial Crisis Management" issued in April 2001. This report recognises that substantial progress is being made by the supervisory committees and the national authorities in the EU in implementing the recommendations of the first report and urges those involved to further improve the functioning of current institutional arrangements. It also advocates closer co-operation to ensure effective crisis management. In particular, the EFC report recommends: (i) that major financial institutions and groups should be able to produce accurate information on their financial position at short notice, performing stress tests and adopting contingency plans to address specific crisis scenarios, which should be shared regularly with the relevant supervisors and central banks; (ii) the removal of any remaining legal impediment to the timely exchange of information between

supervisors, NCBs and other relevant authorities; (iii) agreement on the co-ordinating supervisor for major financial institutions, including conglomerates; (iv) the further development of memoranda of understanding to deal with issues related to crisis management, and prior agreement on the procedures for information exchange in cases of crisis; and (v) that the competition authorities should maintain timely and robust procedures for considering the competitive implications of crisis management measures. The Eurosystem fully supports the assessment put forward in the report and strongly encourages a prompt implementation of its recommendations. To this end, the Banking Supervision Committee (BSC) has worked in liaison with the Groupe de Contact to develop an understanding between supervisory authorities and central banks on co-operation and information sharing in crisis situations.

2 Structure, performance and risks in the banking sector

The monitoring of developments in the banking sector from an EU/euro area-wide perspective – conducted by the BSC – was further enhanced in the course of 2001, along two main lines. First, a regular and comprehensive analysis of major structural developments in the banking industry was initiated. This analysis – to be carried out once a year – is expected to highlight relevant developments of a structural nature requiring the attention of, and policy responses from, central banks and supervisory agencies. In this context, the BSC has also continued to examine a number of ad hoc issues, such as bank-customer relationships in corporate financial services and developments in banks' liquidity profile and management. Second, the regular macro-prudential analysis of the stability of the banking sector has been further expanded in terms of methodologies and thematic scope. Work has begun on methodologies for assessing banks' credit risk exposures to various industrial sectors and for conducting stress-test analyses. Among the topics considered, the determination of

banks' loan loss provisions over business cycles is worth mentioning. The major structural banking developments and the main factors affecting the soundness of the banking sector are outlined below.

Structural developments

A number of long-term trends continue to shape the banking sector.

First, the banking consolidation process continued in most EU countries in 2001. In the recent past, this process has increasingly involved the largest banks, which have reinforced their position in domestic markets or have striven to achieve sufficient "mass" to integrate wholesale and capital market activities and compete on a euro area-wide basis in several areas (e.g. asset management, underwriting and trading). This is indicated in Table 16, as the aggregated value of banking mergers and the average size of the transactions have increased substantially in

the past few years. In the same period, the restructuring of small and medium-sized banks has continued unabated in many countries.

As a result, domestic banking concentration has further increased in most countries. In the EU countries, the average share of the domestic banking business controlled by the five major banks (CR5) increased from around 50% to 60% over the period from 1990 to 2001. The increased involvement of the largest banks in the consolidation process has accelerated the structural changes, with concentration rising significantly since 1997. However, considerable differences continue to exist between countries. Scandinavian countries have CR5 figures of 70%-90%, while in Germany, which has the most dispersed banking system, the figure is around 20%. Consolidation has also increased in the area of investment banking. Major EU banks have invested substantial amounts in this area over the past few years in order to be able to meet the surge in the demand for investment banking services fostered by the expansion of European capital markets. The increased importance of investment banking is reflected in EU banks' income structure. In 2000, non-interest income, for which investment banking is one of the major sources, accounted for 52% of the total net income (compared with

less than 30% in 1996). In this field, consolidation has been driven by the desire to gain global presence and to offer a wide variety of services. The industry is becoming increasingly polarised, as medium-sized investment banks have had to choose between becoming niche players, linking up with other firms or withdrawing from the sector. This trend has been reinforced by the adverse business conditions resulting from the sharp stock market correction since the second half of 2000. A significant slowdown in primary capital market activity, especially in equity issuance, resulted in a substantial reduction in investment banking earnings in the course of 2001.

Second, the process of internationalisation is unfolding inside as well as outside the EU. This process appears to be linked to increasing domestic competition and to more favourable growth prospects in foreign markets. Many banks have preferred to expand to neighbouring countries or countries that share a similar language and culture, thus developing "regional" banking activities. Greek banks, for example, have expanded into the Balkans, Scandinavian banks into the Nordic and Baltic regions, and Spanish banks into Latin America. Central and eastern Europe has been the target for

Table 16
Merger and acquisition activity involving EU banks

| | 1990-1997 | 1998-2001 | 1990-2001 |
|-------------------------------------|-----------|-----------|-----------|
| Total value (EUR millions) | 201,739 | 333,664 | 535,404 |
| <i>(% of total)</i> | 38 | 62 | 100 |
| <i>of which (%):</i> | | | |
| <i>Domestic/within industry</i> | 61 | 66 | 64 |
| <i>Domestic/cross-industry</i> | 17 | 14 | 15 |
| <i>Cross-border/within industry</i> | 8 | 13 | 12 |
| <i>Cross-border/cross-industry</i> | 14 | 7 | 9 |
| Average size (EUR millions) | 412.6 | 1,174.9 | 729.8 |
| <i>Domestic/within industry</i> | 475.8 | 1,345.9 | 861.6 |
| <i>Domestic/cross-industry</i> | 310.5 | 1,131.1 | 549.1 |
| <i>Cross-border/within industry</i> | 246.9 | 1,064.2 | 606.5 |
| <i>Cross-border/cross-industry</i> | 58.1 | 605.0 | 570.4 |

Source: Thomson Financial Securities Services.

Notes: Domestic/cross-border is determined on the basis of the jurisdiction of the target firm. Cross-industry means deals of banks with non-bank financial institutions. The data cover all deals involving large and medium-sized firms (Thomson definitions).

banks from Austria, Belgium, France, the Netherlands and Italy. Within the EU alone, there have been several important cross-border transactions, which have led to an increase in the non-domestic component of many countries' banking systems. Aggregated data also show an increase in the relevance of cross-border mergers and acquisitions (see Table I6).

Third, financial conglomerates are established in many countries. This is highlighted by the rather significant share of cross-industry deals in the mergers and acquisitions involving EU banks (see Table I6). The traditional form of conglomeration involves the setting-up of bank-insurance groups. This tendency has also been promoted by the reforms in national pension systems, increasing the investment potential of pension funds and the synergies involved in distributing different financial products. Mere distribution agreements, usually making use of banks' branch networks, have represented an alternative to ownership links. For banks, this is a way of recovering some of the costs of maintaining extensive branch networks. Recently, banks have increasingly merged with securities firms in order to take advantage of the developing capital markets.

Fourth, the blurring of the *traditional borders* between banking, insurance and asset management has resulted in increasingly "hybrid" financial products, such as insurance contracts with performance linked to that of mutual fund units. As regards corporate clients, banks have expanded beyond their traditional roles as credit providers into underwriting, advice and corporate restructuring. Although "relationship banking" is still found to be relevant in all countries, this does not prevent increased pressure from international competition. For example, firms have begun to put out tenders among international banks, or to use different banks for specific transactions.

Finally, alternative distribution channels are increasingly being used by banks to save costs and to reach new customers. Although

branches have remained the main channel, banks have increased their use of independent intermediaries or franchise systems. The internet has the potential to fundamentally change the way in which banks interact with customers. In most EU countries, however, banks are developing a multi-channel strategy, combining the traditional branch network with the internet. So far, the spread of internet banking has been greatest in securities trading and other standardised deposit-related services. In the EU, internet banking has been developed mainly by existing banks; there are very few pure internet banks and their market share is very low.

Performance and risks

In the course of 2001 the environment in which banks operated deteriorated as global and EU macroeconomic performance weakened, stock markets declined and financial market volatility increased. Macro-prudential analysis of the risks to the banking sector was stepped up, particularly after the terrorist attacks in the United States on 11 September.

Risks to the banking sector increased, even before the US events, on account of the higher indebtedness of banks' borrowers and the greater fragility of certain important borrower sectors and countries.

First, as to banks' sectoral risk exposures, the telecom-media-technology (TMT) sectors showed a rapid increase in borrowing, mainly for the acquisition of licences and other investments related to the third-generation (3G) mobile telephone networks. In the EU, these sectors lost more than 50% of their stock market value in the year since the peak in the spring of 2000. While the market sentiment towards the TMT sectors improved in late 2001, significant fragilities remained. This was due to, inter alia, the increased willingness of governments to reduce the high cost of building the 3G infrastructure. Some sectoral risks were heightened further as a result of the terrorist attacks in the United

States; this was particularly the case for those sectors (airline, tourism and insurance) directly affected by these attacks. Banks' exposures to these sectors were generally found to be not overly large and manageable.

Second, with regard to the banks' country risk exposures, the economic situation in some emerging market economies had deteriorated even before the US events, and this deterioration was accentuated as a result. In Asia, a sharp decline in IT sector exports, in particular, drove down economic activity. The situation in Latin America worsened significantly as a result of the weakening of the US economy and the financial crisis in Argentina. In the course of the year, and in contrast to previous situations of financial instability in emerging markets, international investors decoupled the specific risks associated with Argentina from those arising from other Latin American countries. Financial contagion effects on Brazil decreased significantly in the last quarter of 2001, even though conditions in Argentina continued to deteriorate. A similar assessment can be made as regards Turkey,

where financial instability, while remaining a concern, did not result in widespread contagion to other countries. With the exception of Russia, economic growth prospects also worsened in a number of central and eastern European countries. EU banks' total gross credit exposures to emerging market economies tended to increase in 2001, whilst in most cases remaining fairly limited in proportion to banks' own funds.

Third, as regards the performance of the banking sector, in 2001 EU banks' net income declined following a reduction in income from investment banking, which was one of the main drivers behind the record level of profits in 2000, and the deterioration of macroeconomic conditions. In this context, the rigidity of banks' costs seems to have made it difficult to maintain profitability. All in all, the outlook for profitability worsened in the course of 2001. However, the positive performance record of most banks in the years before 2001 and the accumulated capital buffers were deemed reassuring as regards their ability to withstand the deterioration in external conditions.

3 Banking and financial regulation

The revision of the capital adequacy framework for banks remained the main issue in the field of *banking regulation* at the international level. The Basel Committee on Banking Supervision (BCBS) decided to amend the time frame for finalisation and implementation of the new Capital Accord inter alia in order to thoroughly review the numerous and extensive comments received during and after the second consultative round, which started in January 2001. During the course of 2001 the BCBS further refined the main elements of the three pillars of the proposed framework, namely minimum capital requirements, the supervisory review process and market discipline, in order to enable the elaboration of a comprehensive set of rules. In addition, the calibration of absolute capital charges was further improved on the basis of the outcome of targeted

impact studies. Moreover, macro-prudential aspects relating to possible pro-cyclical features of the new Accord received increased attention.

At the EU level, work on reforming the regulatory capital framework for banks and investment firms was undertaken in parallel with that of the BCBS. In March 2001, the European Commission released its second consultative document. The focus of this document was on issues of particular concern to the EU, such as the treatment of small and medium-sized banks and of investment firms; a number of specific solutions were proposed in this regard. Given the need for flexibility in the decision-making process, in order to respond effectively to developments in financial services and markets, a new procedure is envisaged for amending the

forthcoming directive; this is based on a distinction between the core elements – subject to the normal co-decision procedure – and the technical provisions – subject to amendments under the “comitology” procedure.

In June 2001, the ECB, which participates in both the BCBS and the Banking Advisory Committee (the EU forum assisting the European Commission in the preparation of the new Community banking legislation) in an observer capacity, submitted its comments on the consultative documents issued by the BCBS³ and the European Commission. The ECB supported the general thrust of the proposed regulatory reform on the basis that it would contribute to strengthening financial stability. The main remarks of the ECB focused on: (i) the possible pro-cyclical effects of the new Accord; (ii) the need for an adequate incentive structure in selecting the most appropriate approach (i.e. standardised, IRB foundation and IRB advanced); (iii) the effective interplay of the three pillars and the need for supervisory convergence in implementing the new regulatory framework; and (iv) the right balance between accuracy and complexity. As regards the EU-specific issues, the ECB endorsed a fair and prudent treatment both of small and medium-sized banks and of investment firms to ensure that the regulatory capital requirements reflect their specific risk profile. The ECB also welcomed the proposed flexibility of the legislative process.

The issue of fair value accounting (FVA) has also been topical in the international discussions following the issuance in December 2000 of the consultative document entitled “Draft standard and basis for conclusions – financial instruments and similar items” by the Financial Instruments Joint Working Group of Standard Setters. In this document, it is proposed to use FVA as the basis for the valuation of all financial instruments. In its contribution to the consultation process, the ECB conveyed its reservations about the adequacy of applying

a full FVA regime to the banking sector, in particular to the banking book of banks.⁴

In the area of financial regulation, the implementation of the Financial Services Action Plan continued in 2001, with the objective of promoting further integration of financial markets in the EU, while at the same time pursuing adequate investor protection and the stability of the financial sector. In this context, in 2001 the Commission put forward a proposal for a directive on financial conglomerates, with the aim of establishing prudential requirements at the conglomerate level and of achieving a high degree of co-ordination between the competent supervisory authorities. In its Opinion on the matter,⁵ the ECB proposed certain improvements with regard to the directive’s scope of application, the transparency and clarity of supervisory arrangements and the appropriate distribution of tasks and competencies among the relevant authorities, particularly as regards the “co-ordination” of supplementary supervision.

The events of 11 September and their impact on financial stability received high priority in international regulatory discussions, as did the related concerns over the potential abuse of the financial system for financing terrorism. The Governing Council of the ECB fully supported the measures taken in the aftermath of these events to prevent the use of the financial system in the funding of terrorist activities. At the global level, the role of the Financial Action Task Force on Money Laundering – in which the ECB participates as an observer – was enhanced by extending its mandate to combatting the financing of terrorism. At the EU level, the final agreement, reached in December 2001, on the amendments to the money laundering Directive will imply a substantial

³ See European Central Bank, “The New Basel Capital Accord. Comments of the European Central Bank”, June 2001.

⁴ See European Central Bank, “Fair value accounting in the banking sector”, November 2001.

⁵ See the “Publications – Legal documents” section of the ECB’s website.

strengthening of this Directive. The draft directive on insider dealing and market manipulation, put forward in 2001, is also expected to make a useful contribution to discouraging the abuse of financial markets.

In its Opinion on the subject, the ECB highlighted the need for enhanced supervisory co-operation and for convergence of supervisory practices.



Finland: **Training of cashiers at Suomen Pankki – Finland's Bank in Helsinki**

Chapter IX

The statistical framework

I Introduction

As in 2000, the ECB's statistical work in 2001 was aimed at ensuring that the information needed to support the functions of the Eurosystem continued to be received, processed and made available to users in a timely manner and to a high quality standard, with good supporting documentation.

Much of this work was carried out in close co-operation with the NCBs, which collect data from the reporting agents, produce aggregates at the national level and transmit these to the ECB, which, in turn, produces the euro area aggregates. In addition, both the NCBs (and other national authorities) and the ECB have been heavily involved in statistical conceptual and development work, as well as in the preparation of ECB legal acts within the framework of Council Regulation (EC) No. 2533/98 concerning the collection of statistical information by the ECB. The Statute of the ESCB also requires that the ECB co-operate with Community institutions and with international organisations. The scope of the statistical work of the ESCB is

presented in a document entitled "Statistical information collected and compiled by the ESCB", dated May 2000, which covers money and banking and related statistics, balance of payments statistics, the international investment position, financial accounts and government finance statistics. Information needs in the areas of prices and costs, national accounts, the labour market, government receipts and expenditure, short-term indicators of output and demand, and business and consumer surveys, which are mainly the responsibility of national statistical institutes, are dealt with at the European level by the European Commission, with the ECB taking a keen interest in their development as an active user.

Subject to meeting its statistical requirements, the ECB seeks to produce reliable, comprehensive and high-quality statistics in a way that minimises the reporting burden on institutions. In doing so, the ECB makes use of existing statistics wherever possible.

2 Money and banking statistics and statistics on financial markets

Monetary financial institutions (MFIs) report balance sheet data on a monthly and quarterly basis. The "List of MFIs" is updated monthly and is published on the ECB's website. The requirement is to maintain a consistent application of the definition of an MFI across the euro area and the European Union.

In November 2001 the Governing Council of the ECB approved a new ECB Regulation concerning the consolidated balance sheet of the MFI sector (ECB/2001/13), which repeals and replaces Regulation ECB/1998/16, as amended in August 2000, and introduces major improvements to MFI balance sheet statistics. The new requirements include the monthly compilation of a detailed sectoral breakdown of deposits included in M3 and of loans, as well as the provision of comparable revaluation adjustments for the calculation of

flow statistics for MFI loans and holdings of securities. A quarterly breakdown of MFI holdings of shares by sub-sector is also included. The new statistical requirements were subject to a formal procedure involving reporting agents to strike a balance between the benefit of additional data for monetary policy analysis and other analytical purposes and the costs arising from the implementation of these requirements. Data according to the new regulation will be reported for the first time in early 2003.

During 2001 adjustments were made to the M3 aggregate, using newly available information about holdings of negotiable instruments by non-residents of the euro area. Holdings of money market fund shares/units by investors outside the euro area have been excluded from M3 since May 2001.

Starting with the release of monetary statistics for October 2001, M3 has also been corrected for holdings of short-term debt instruments (i.e. money market paper and debt securities issued by MFIs in the euro area with an initial maturity of up to two years) by non-residents of the euro area. Hence, as from October 2001, M3 has been adjusted for all holdings of negotiable monetary instruments by non-residents of the euro area. Back series are available from the start of monetary union in January 1999. These adjustments bring the measurement of M3 significantly closer to the ECB's conceptual definition of this aggregate, which is to include monetary holdings of euro area residents only.

There were some important developments regarding the publication of M3 in 2001. The release dates for the ECB's monthly monetary statistics are currently announced for the following four months on a rolling basis; the first such announcement was made in July 2001. Furthermore, as from that month the annual growth rates for currency in circulation, overnight deposits, M1, short-term deposits other than overnight deposits ($M2 - M1$), M2, marketable instruments ($M3 - M2$) and M3 were calculated on the basis of data adjusted for seasonal and end-of-month calendar effects. Through this procedure, the annual growth rates reflect underlying patterns more accurately than those based on unadjusted data. When the monetary statistics were first published, no sufficiently reliable and stable seasonally adjusted data were available. In addition, euro area statistics on electronic money, on the national breakdown of the aggregated balance sheet of the "Other MFI" sub-sector, and on the derivation of M3 flows are now regularly published on the ECB's website.

Since 1999, a set of ten euro area retail interest rates has been published monthly in the ECB's Monthly Bulletin. These follow a short-term approach based on existing national sources. While the availability of these retail interest rates has ensured that a minimal initial set of retail interest rate statistics was available for monetary policy purposes from the start of Monetary Union, the underlying data are not harmonised and the results should be used with caution. During 2001 work on new interest rate statistics continued and in December 2001 Regulation No. ECB/2001/18 was adopted. This Regulation provides for the introduction of a comprehensive new set of interest rate statistics on MFI loan and deposit business, which is harmonised, complete, detailed and able to cope with financial innovation. The statistics cover only those interest rates that are applied to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in the euro area. They will meet a long-standing and essential user requirement for better interest rate data inter alia to support the analysis of monetary developments and the monetary transmission mechanism. The Regulation stipulates that 45 indicators must be available to the ECB by the 19th working day after the end of the reference month and provides for the reporting of monthly interest rate statistics on new business and outstanding amounts. In this area, too, the decision was based on a merits and cost procedure. The first data will be available in early 2003.

In February 2001 securities issues statistics were greatly extended with the release on the ECB's website of monthly data stretching back to January 1990 (December 1989 for stocks) on stocks (amount outstanding) and flows (gross issuance, redemptions and net issuance).

3 Balance of payments, international reserves and international investment position statistics, and effective exchange rates

The compilation and publication of euro area monthly and quarterly balance of payments data and annual net international investment position data and of the Eurosystem's monthly international reserve position proceeded smoothly in 2001. Work has been undertaken to improve the collection of portfolio investment data, an important and complex item. Further developments are expected in 2002 on this, on direct investment (the subject of much collaborative work in 2001) and on the recording of investment income. Work has also been undertaken to define a standard geographical breakdown of the balance of payments and international investment position statistics. Further steps have been taken to improve the sector breakdown of the balance of payments, in particular between the MFI and other sectors, thus contributing to consistency between monetary aggregates and balance of payments data. In co-operation with the European Commission (Eurostat) and national balance of payments compilers, the ECB worked on

criteria for assessing the quality of balance of payments and related statistics. The ECB also contributed to the discussion within the European Union about the likely direction of change in balance of payments statistical systems, to some extent as a consequence of the advent of Economic and Monetary Union.

The seasonal adjustment of the euro area balance of payments current account was published for the first time in July 2001.

A revised version of the annual publication "European Union balance of payments/international investment position statistical methods" was released in November 2001. This publication provides documentation on the statistical methodologies applied in Member States for compiling balance of payments and international investment position statistics and, as such, improves the transparency of the compilation of euro area statistics.

4 Financial accounts and government finance statistics

Quarterly financial accounts data for the euro area non-financial sectors were published for the first time in May 2001. The new data cover the financing and financial investment of the household, non-financial corporations and government sectors in the euro area, showing both transactions and amounts outstanding along with instrument details. The data are based on euro area money and banking and securities issues statistics, government finance statistics, quarterly national financial accounts and BIS international banking statistics, and start in the fourth quarter of 1997.

The ECB continues to publish annual data on government revenue and expenditure in the euro area. During 2001 quarterly data became available under Commission Regulation (EC) No. 264/2000, covering taxes and social contributions on the revenue side and social benefits on the expenditure side. Community legislation in preparation will, when implemented, complete the quarterly coverage of government non-financial transactions and provide quarterly data on government financial transactions and stocks beyond what is already available from other data sources.

5 General economic statistics

General economic statistics covering prices and costs, national accounts, labour markets and a wide range of other economic data support the second pillar of the ECB's monetary policy strategy. The ECB and the European Commission (which is mainly responsible for these statistics at European level) collaborated closely in monitoring the implementation of the Action Plan on EMU Statistical Requirements presented to the ECOFIN Council in September 2000. The Action Plan includes about ten legal acts, of which three, in the area of short-term business statistics, were adopted in 2001.

A further progress report adopted and published by the ECOFIN Council in November 2001 lists a number of actions still necessary even after the implementation of the current Action Plan. In particular, further improvements must be made in availability and timeliness of key indicators. The report also stressed the need for a broader statistical basis for service activities, a better balancing of priorities between speed, detail and quality of statistics, and the collection of data for the rapid production of European aggregates.

6 Incorporation of Greece in euro area statistics

The incorporation of Greece into euro area statistics generally went smoothly. The enlargement of the euro area to include Greece as from 1 January 2001 had two main statistical implications. First, residents of Greece were included as residents of the euro area. Second, the Greek drachma became a national denomination of the euro. Consequently, from a statistical perspective, the composition of the "rest of the world" and "foreign currencies" items changed. This, in turn, affected all monetary, financial and other economic statistics for the euro area as a whole.

The preparation of statistics for the enlarged euro area was co-ordinated with the European Commission to ensure, where

necessary, consistency in all statistical domains. All changes were implemented in the "Euro area statistics" section of the ECB's Monthly Bulletin, as data relating to 2001 became available. Monetary policy statistics and data on monetary developments, financial markets, securities issues, interest rates and consumer prices for the extended euro area were available first. Balance of payments data as well as real economy statistics for the extended euro area became available later, reflecting the normal release schedule. In addition, for analytical purposes, back series for some selected economic indicators were compiled for the euro area plus Greece up to end-2000 and published in the statistical section of the ECB's Monthly Bulletin.

7 Co-operation with the European Commission and international institutions

At the European level the agreed division of statistical responsibilities between the ECB and the European Commission (Eurostat), worked well in 2001, as in previous years.

The ECB also has close contacts with the BIS, the IMF and the OECD concerning statistical matters.

8 Statistics relating to non-participating Member States and accession countries

All EU Member States were strongly encouraged to undertake the statistical preparations for participation in Stage Three of EMU.

As in previous years, in 2001 the Eurosystem provided extensive technical assistance to the central banks of those countries which are candidates to join the EU – the accession countries – with a view to preparing for their future integration into the ESCB, and later into the Eurosystem (see also Chapter V for a more detailed overview of the relation between the ECB and the accession

countries). This technical assistance is primarily intended to help these countries implement data collection, compilation and exchange systems that will allow them, in due course, to meet the ECB's statistical requirements, and to contribute to properly articulated (aggregated and consolidated) statistics for the euro area. At the conceptual level, the ECB published a "Provisional list of MFIs of the accession countries" and a methodological manual for money and banking statistics, while a manual for balance of payments statistics was published in early 2002.



Ireland: Irish students „impersonating“ euro banknotes and coins at a shopping centre in Dublin

Chapter X

Other tasks and activities

I Advisory functions

Article 105 (4) of the Treaty and Article 4 of the Statute of the ESCB require that the ECB be consulted by the relevant Community institution and the responsible national authorities,¹ as appropriate, on any proposed Community or national legislation which falls within the ECB's fields of competence.

The limits and conditions applicable to the consultation of the ECB by national authorities in respect of draft legislation are set out in Council Decision 98/415/EC of 29 June 1998. Article 2 (1) and (2) of this Decision elaborates the specific areas in which the ECB is to be consulted, namely on any draft legislation relating to:

- currency matters;
- means of payment;
- NCBs;
- the collection, compilation and distribution of monetary, financial, banking, payment systems and balance of payments statistics;
- payment and settlement systems; and
- rules applicable to financial institutions insofar as they materially influence the

stability of financial institutions and markets.

In addition, the authorities of non-euro area Member States² must also consult the ECB on any draft legislative provisions on the instruments of monetary policy.

In total, 40 consultations were initiated in 2001, ten of which involved the introduction of the euro banknotes and coins in 2002 and 11 of which involved Community legal acts. The remaining consultations related to national legislative proposals.

For a list of ECB opinions over time, please refer to the ECB's website (www.ecb.int). In addition, the box below summarises the consultations initiated in 2001.

¹ In accordance with the Protocol on certain provisions relating to the United Kingdom of Great Britain and Northern Ireland, as annexed to the Treaty, Article 105 (4) of the Treaty and Article 4 of the Statute of the ESCB shall not apply to the United Kingdom. Hence, the obligation to consult the ECB does not extend to the national authorities of the United Kingdom.

² Other than the United Kingdom (see footnote 1).

Box 11

Consultation procedures in 2001

(a) Consultations from Member States

| No. ¹ | Originator | Subject |
|------------------|------------|---|
| CON/2001/1 | Portugal | The dual circulation of banknotes and coins denominated in euro and escudos and amendments to the organic law of the Banco de Portugal. |
| CON/2001/2 | France | Legal act in the field of payment systems. |
| CON/2001/5 | Ireland | Certain provisions included in a draft Euro Changeover (Amounts) Bill, 2001. |
| CON/2001/6 | Ireland | Mortgage and Public Credit Bond Bill. |
| CON/2001/7 | Luxembourg | Grand Duchy Regulation concerning the 2002 euro cash changeover and modifying certain legislative provisions. |
| CON/2001/9 | Austria | Second Federal Law containing ancillary measures for the introduction of the euro. |
| CON/2001/10 | Austria | Article of the Federal Law establishing and organising the financial market supervisory authority and amending several related laws. |

¹ Consultations are numbered according to the order in which they are adopted by the Governing Council of the ECB.

| No. ³ | Originator | Subject |
|------------------|-----------------|---|
| CON/2001/11 | Ireland | Legislative proposal on certain provisions included in a Dormant Accounts Bill, 2001. |
| CON/2001/12 | Spain | Law introducing amendments to several laws governing the Spanish financial market. |
| CON/2001/14 | Spain | Order on the frontloading of banknotes and coins denominated in euro. |
| CON/2001/15 | Belgium | Law relating to the cash changeover to the euro in Belgium. |
| CON/2001/16 | Luxembourg | Act concerning the approval of the International Convention on the Suppression of Counterfeiting Currency, and the Protocol thereto; and the modification of certain provisions of the Penal Code and the Code of Criminal Procedure. |
| CON/2001/17 | Germany | Seventh Law amending the Deutsche Bundesbank Act. ² |
| CON/2001/19 | Austria | Law amending Austrian criminal law (<i>Strafrechtsänderungsgesetz 2001</i>). |
| CON/2001/20 | France | Decree relating to the marking of banknotes denominated in francs. |
| CON/2001/21 | Greece | Law with respect to the circulation of euro banknotes and coins and other related provisions. |
| CON/2001/22 | Italy | Decree Law introducing urgent provisions for the introduction and safeguard of the euro. |
| CON/2001/23 | Belgium | Law on the compilation of the balance of payments and the international investment position of Belgium and amending the Decree Law of 6 October 1944 on foreign exchange controls and various legal provisions. |
| CON/2001/24 | Austria | Federal Law concerning real estate funds and amending several related Acts. |
| CON/2001/26 | The Netherlands | Amendment of the current Decision dated 27 July 1998 on the establishment of rules concerning the exchange, withdrawal and cancelling of banknotes by De Nederlandsche Bank and the information thereon to be provided to the general public. |
| CON/2001/27 | Finland | Proposal concerning legislation on the reorganisation and winding-up of credit institutions. |
| CON/2001/28 | Luxembourg | Regulation relating to a derogation from the provisions concerning State officials or probationer officials in respect of agents of the Banque centrale du Luxembourg subject to public law status. |
| CON/2001/29 | Austria | Law amending court fees (<i>Euro-Gerichtsgebühren-Novelle</i>). |
| CON/2001/30 | Finland | Legislation on the supervision of financial conglomerates. |
| CON/2001/32 | Portugal | Decree Law amending the legal framework of credit institutions and financial companies. |
| CON/2001/35 | Germany | Law establishing integrated financial services supervision. ² |
| CON/2001/37 | Austria | Law amending the Lawyers' Fees Act on the introduction of the euro (<i>Euro-Rechtsanwaltstarif-Novelle</i>). |
| CON/2001/39 | Portugal | Decree Law amending the foreign exchange legal framework. |
| CON/2001/40 | Austria | Law amending the National Bank Act (<i>Nationalbankgesetz</i>). |

² Published on the ECB's website.

³ Consultations are numbered according to the order in which they are adopted by the Governing Council of the ECB.

(b) Consultations from European institutions⁴

| No. ⁵ | Originator | Subject | Publication |
|------------------|---------------------|--|----------------------------------|
| CON/2001/3 | EU Council | Regulation of the European Parliament and of the Council amending Regulation (EC/Euratom) No. 58/97 concerning structural business statistics. | OJ C 131, 3.5.2001, p. 5 |
| CON/2001/4 | EU Council | Regulation of the European Parliament and of the Council on quarterly non-financial accounts for general government. | OJ C 131, 3.5.2001, p. 6 |
| CON/2001/8 | EU Council | Council Regulation establishing a facility providing medium-term financial assistance for Member States' balances of payments. | OJ C 151, 22.5.2001, p. 18 |
| CON/2001/13 | EU Council | Proposal for a Directive of the European Parliament and of the Council on financial collateral arrangements. | OJ C 196, 12.7.2001, p. 10 |
| CON/2001/18 | European Commission | Commission Regulations (EC) laying down detailed rules for the implementation of Council Regulation (EC) No. 2494/95 as regards minimum standards for revisions of the Harmonised Index of Consumer Prices and minimum standards for the treatment of service charges proportional to transaction values in the Harmonised Index of Consumer Prices. | OJ C 244, 1.9.2001, p. 5 |
| CON/2001/25 | EU Council | Directive of the European Parliament and of the Council on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate and amending several related Directives. | OJ C 271, 26.9.2001, p. 10 |
| CON/2001/31 | EU Council | Council Decision establishing a training, exchange and assistance programme for the protection of the euro against counterfeiting (the Pericles programme). | OJ C 293, 19.10.2001, p. 3 |
| CON/2001/33 | EU Council | Regulation of the European Parliament and of the Council concerning the labour cost index. | OJ C 295, 20.10.2001, p. 5 |
| CON/2001/34 | EU Council | Regulation of the European Parliament and of the Council on cross-border payments in euro. | OJ C 308, 1.11.2001, p. 17 |
| CON/2001/36 | EU Council | Directive of the European Parliament and of the Council on the prospectus to be published when securities are offered to the public or admitted to trading. | OJ C 344, 6.12.2001, p. 4 |
| CON/2001/38 | EU Council | Directive of the European Parliament and of the Council on insider dealing and market manipulation (market abuse). | OJ C 24, 26.1.2002 p. 8 |

⁴ Published on the ECB's website.

⁵ Consultations are numbered according to the order in which they are adopted by the Governing Council of the ECB.

2 Compliance with the prohibitions of monetary financing and privileged access

Pursuant to Article 237 (d) of the Treaty, the ECB is entrusted with the task of monitoring the fulfilment by the 15 EU NCBs of their obligations under Articles 101 and 102 of the Treaty and Council Regulations (EC) Nos. 3603/93 and 3604/93. This task is performed by the General Council of the ECB. In addition, the General Council monitors the ECB's compliance with these provisions. Article 101 prohibits the ECB and the NCBs from providing overdraft facilities or any other type of credit facility to governments and Community institutions or bodies, as well as from purchasing debt instruments directly from them. Article 102 prohibits any measure, not based on prudential considerations, which establishes privileged access by governments and Community institutions or bodies to financial institutions. In parallel with the General Council, the European Commission monitors Member States' compliance with the above provisions.

The General Council also monitors the EU central banks' secondary market purchases of debt instruments issued by both the domestic public sector and the public sector of other Member States. According to the recitals of Council Regulation (EC)

No. 3603/93, the acquisition of public sector debt instruments in the secondary market must not be used to circumvent the objective of Article 101 of the Treaty. Such purchases should not become a form of indirect monetary financing of the public sector.

For 2001, the General Council did not find major cases of non-compliance with the above Treaty requirements and the associated Council Regulations by the NCBs of Member States or by the ECB. The General Council noted that the amount of coins held by two NCBs and credited to the public sector temporarily exceeded the limit of 10% of coins in circulation as laid down in Article 6 of Council Regulation (EC) No. 3603/93, in the context of the strong reflow of coins to these NCBs prior to the introduction of euro coins on 1 January 2002. Apart from these infringements of the prohibition of monetary financing laid down in Article 101, the General Council also took note of two other incidents where the ECB and one NCB, in different ways, did not comply fully with the Treaty provisions. However, in both these cases, the amounts involved were minor and immediate measures were taken by the central banks concerned to avoid the occurrence of such events in the future.

3 The administration of the borrowing and lending operations of the European Community

In accordance with Article 123 (2) of the Treaty and Article II of Council Regulation (EEC) No. 1969/88 of 24 June 1988, the ECB has responsibility for the administration of the borrowing and lending operations of the European Community under the medium-

term financial assistance facility. During 2001, however, the ECB performed no such administration tasks, as there was no outstanding balance at the end of 2000 and no new operations were initiated during the year.



European Central Bank **The winners of the "Be a Euro SuperStar" competition with the President of the European Central Bank, Willem F. Duisenberg, at the award ceremony in Frankfurt on 31 December 2001**

Chapter XI

External communication and accountability

I The ECB's communication policy and activities

I.1 Communication policy objectives

The ECB is committed to the principles of openness, transparency and accountability. Although these are not an end in themselves, they provide the basis for the ECB's and the Eurosystem's communication policy, which is aimed at contributing to the effectiveness, efficiency and credibility of monetary policy and at enhancing public understanding of the Eurosystem and its work.

The communication efforts are directed mainly, but not exclusively, towards audiences in the 12 euro area countries. The decentralised set-up of the Eurosystem facilitates external communication in different languages and in different national contexts. Accordingly, the NCBs play an important role in achieving the goals of the communication policy. The effective co-ordination of the communication activities within the Eurosystem is of paramount importance. In the process of co-ordination, special emphasis is put on the efforts to achieve "single voice" communication on the single monetary policy in the euro area.

The decision taken on 8 November 2001 by the Governing Council of the ECB to assess its monetary policy stance – as a rule – only once a month, instead of at every fortnightly meeting, had significant communication implications. One of the desired effects of this decision was to reduce the frequency of media and market speculation on possible changes in the monetary policy stance.

I.2 Important communication issues in 2001

A number of topical issues can be identified as being among the most important for the ECB's communication in 2001. These issues are dealt with in detail in the relevant chapters of this Annual Report. However, they are also mentioned in brief below in order to give an overview of the communication

challenge facing the ECB and the Eurosystem in 2001.

For some of these issues the ECB acted proactively, with the aim of increasing the general public's knowledge of matters pertaining to the ECB's fields of competence. For others, the ECB responded to a demand for information from the media, from specialised groups or from the public.

Some of the most important communication issues in 2001 were:

- The monetary policy stance. The ECB's key interest rates were changed four times during 2001. See Chapter I.
- Decisions on the issue of euro banknotes and on the allocation of monetary income.
- Preparations for the euro cash changeover, including the conduct of the Euro 2002 Information Campaign. See Chapter VI.
- Monetary policy operations, particularly in the light of the exceptional circumstances in September 2001. See Chapter II.
- The Eurosystem's role in the EU accession process. See Chapter V.
- Development of payment and settlement systems, in particular progress towards a uniform service level for retail payments in the euro area. See Chapter VII.
- Statistical issues, in particular a refinement of the statistics on monetary developments. See Chapter IX.
- Discussions on supervisory issues and financial stability at the European and international level. See Chapter VIII.
- Organisational matters of the ECB, in particular the project to acquire a site for the future premises of the ECB and the

Executive Board's decision to partially redistribute the individual responsibilities of its members. See the ECB President's foreword to this Annual Report.

1.3 Communication activities

The ECB continues to use various different communication tools to disseminate information to the general public and its elected representatives, to the financial markets and to other interest groups in such a way as to take due account of the diversity of the audiences. Article 15 of the Statute of the ESCB stipulates that the ECB shall draw up and publish quarterly reports on the activities of the ESCB. Moreover, it must present an annual report on the activities of the ESCB and on the monetary policy of both the previous and the current year to the European Parliament, the Council of the European Union, the Commission and the European Council. In addition, a financial statement of the Eurosystem has to be published each week. In fact, the ECB communicates more actively than is required by the Treaty.

The communication channels used by the ECB include the following:

- Press conferences held by the President and the Vice-President, usually immediately after the first Governing Council meeting of each month. The introductory statement delivered by the President and the Vice-President gives a detailed and almost "real-time" description of the Governing Council's assessment of the monetary and economic developments in the euro area.
- The ECB's Monthly Bulletin normally appears one week after the first Governing Council meeting in the month. It contains details of the ECB's view of the economic situation, as well as articles on topical issues and, in June and December, the Eurosystem staff economic projections. In addition, it includes a wide range of economic and financial data on the euro area.
- The Annual Report of the ECB is presented to the European Parliament and published every year in April.
- The President of the ECB appears before the Committee on Economic and Monetary Affairs of the European Parliament once a quarter. These testimonies are dealt with in Section 2 of Chapter XI of this Annual Report.
- Public speeches and interviews given by the members of the ECB's decision-making bodies constitute an important means of directly addressing both specialist audiences and the general public.
- Press releases are used to make statistical information or short policy announcements available to the public.
- Brochures and other printed publications are provided for audiences ranging from the general public to specialists in various fields.
- The Working Paper Series seeks to disseminate the results of research conducted at the ECB, or presented in the context of ECB conferences and seminars.
- The Occasional Paper Series presents policy-related topics to a wide audience, including other policy-makers, academics, the media and the general public.
- The direct transmission of pages to wire services gives the ECB the opportunity to disseminate market-sensitive information in real time to financial market participants.
- Groups of visitors are received at the ECB on an almost daily basis throughout the year. In 2001 more than 10,000 European citizens gained first-hand information during a visit to the ECB.

- Academic conferences are organised to help stimulate interaction between economists interested in central banking issues.

Most documents published by the ECB are translated into the official languages of the European Community. A substantial part of this translation work is carried out by the NCBs. In addition, the NCBs are in charge of printing and distributing the ECB's Monthly

Bulletin as well as other ECB publications. All documents published by the ECB can be viewed and downloaded from the ECB's website (www.ecb.int). A further improvement of this service took place in January 2002 when a search function was installed on the website. The number of visits to the ECB's website has increased steadily and reached a monthly average of some 2 million in 2001. E-mail hotlines are provided to deal with various types of queries.

2 The exchange of information and views with the European Parliament

2.1 Overview of relations between the ECB and the European Parliament

In 2001 the ECB continued its regular dialogue with the European Parliament, as provided for in Article 113 (3) of the Treaty. As in past years, the main forum for these regular contacts were the quarterly testimonies before the Parliament's Committee on Economic and Monetary Affairs, in which the President of the ECB reported on the decisions taken by the ECB and the fulfilment of the tasks of the Eurosystem. Members of the Executive Board also appeared before the European Parliament in order to present the ECB's Annual Report 2000 to the Committee on Economic and Monetary Affairs and, subsequently, at the European Parliament's plenary session, and in order to present the ECB's views on the Commission's report entitled "EU economy – 2000 review".

Moreover, the ECB was invited by the European Parliament to participate in meetings at the expert level. In this context, ECB experts took part in a hearing of the European Parliament's Temporary Committee on the ECHELON Interception System in order to provide information about, in particular, the ECB's strategy to protect information exchanged via its data and voice communications systems against possible interception. Furthermore, the ECB took part

in an expert panel on "Monetary co-operation in Europe: the introduction of the euro and its implications for ACP countries" (African, Caribbean and Pacific states), which was organised in the context of the ACP-EU Joint Parliamentary Assembly. An overview of the appearances made by ECB representatives before the European Parliament in 2001 is provided in Box 12.

In addition, some meetings between the European Parliament and the ECB were held on an informal basis. In particular, a delegation of members of the Committee on Economic and Monetary Affairs visited the ECB on 22 October 2001 in order to exchange views with the members of the Executive Board. Moreover, on 27 June a delegation of ECB experts met members of the Committee on Economic and Monetary Affairs at the European Parliament to discuss issues related to the improvement of cross-border retail payment services in euro.

Finally, the ECB also replied to a number of questions submitted in writing by Members of the European Parliament. Insofar as such replies related to questions raised during public testimonies made by the President of the ECB, they were published on the ECB's website as an annex to the transcript of the respective testimonies. Thus the explanations are made available to a wider public so as to ensure transparency of the ECB's views.

Box 12

Appearances by ECB representatives before the European Parliament in 2001

On 4 July 2001 the President presented the ECB's Annual Report 2000 at the European Parliament's plenary session.

The following appearances were made by members of the Executive Board before the Committee on Economic and Monetary Affairs:

- quarterly testimonies by the President (5 March, 28 May, 12 September and 18 December);
- presentation of the ECB's Annual Report 2000 by the Vice-President (2 May);
- exchange of views with Mr. Issing on the Commission's report entitled "EU economy – 2000 review" (24 January);

Moreover, ECB experts participated in the following meetings held at the European Parliament:

- hearing of the European Parliament's Temporary Committee on the ECHELON Interception System (6 March);¹
- expert panel at the workshop on "Monetary co-operation in Europe: the introduction of the euro and its implications for ACP countries" organised in the context of the ACP-EU Joint Parliamentary Assembly (31 October).

¹ On a decision by the Committee, this hearing was held *in camera*.

2.2 Views of the ECB on selected topics raised at meetings with the European Parliament

During the exchanges of views between the European Parliament and the ECB, a wide range of issues pertaining to the Eurosystem's fields of competence were addressed. Naturally, the ECB's monetary policy decisions and the assessment of economic developments figured among the main focal points. In addition, members of the Committee on Economic and Monetary Affairs enquired about the other tasks conferred by the Treaty upon the Eurosystem, such as its contribution to the prudential supervision of credit institutions and to the stability of the financial system, as well as to the maintenance of efficient and sound payment systems.

Given the broad scope of subjects, it is not possible to report on all aspects of the discussions held between the European Parliament and the ECB. Nonetheless, the following sections provide information about some of the most pertinent issues raised during the President's testimonies.

The definition of price stability adopted by the Governing Council of the ECB

Members of the Committee on Economic and Monetary Affairs raised questions with regard to the definition of price stability adopted by the Governing Council of the ECB.

The President pointed out that the definition of price stability, i.e. a year-on-year increase in HICP inflation of below 2%, followed on from definitions adopted by NCBs in the euro area prior to the start of Stage Three of EMU. By

maintaining this continuity, the ECB respected existing public expectations of long-term price stability, thus enhancing the credibility of the single monetary policy and public support for the euro.

With regard to the numerical value for the definition of price stability, the President recalled that, for sound economic reasons, the Treaty does not allow the exclusion, in an arbitrary manner, of low positive numbers for increases in the price level. In this sense, it would not have been appropriate to exclude inflation rates below a certain value, say 1.5%, from the definition of price stability. Setting a relatively narrow range of price increases admissible over the medium term helps to anchor inflation expectations in an effective manner, thereby reducing uncertainty and the associated risk premia on interest rates. At the same time, by setting a floor which excludes decreases in the HICP from the range of inflation rates regarded as compatible with price stability, the definition of price stability is made symmetric in that it precludes deflation as well as inflation.

From a general point of view, choosing a quantitative rather than qualitative definition of price stability contributes to anchoring inflation expectations which, as pointed out above, is essential if the full benefits of price stability are to be reaped. Moreover, the President recalled that a quantitative definition of price stability also provides the basis for the accountability of the ECB by setting a clear benchmark against which its monetary policy can be assessed over time. In this regard, the President stressed that, as foreseen by the ECB's monetary policy strategy, price stability is to be maintained over the medium term. This acknowledges the existence of shocks to inflation which monetary policy cannot control in the short run.

The contribution of the single monetary policy to general economic policies in the Community

The contribution of the single monetary policy to general economic policies in the Community without prejudice to the objective of price stability, as stipulated in Article 105 (1) of the Treaty, was again one of the key issues raised during the President's testimonies at the European Parliament.

The President recalled that monetary policy cannot influence real output over the long run. Rather, the best contribution the ECB can make to the general economic objectives in the Community, such as sustainable and non-inflationary growth and a high level of employment, is the maintenance of price stability. By focusing on its primary objective, the ECB contributes to avoiding distortions in the price mechanism and minimising inflation risk premia on interest rates. In this way, it promotes the efficient allocation of market resources and fosters conditions conducive to investment.

By focusing on the maintenance of price stability over the medium term, the ECB's monetary policy contributes to stabilising output growth. This medium-term orientation also reflects the need for gradual responses to some types of economic shocks, thus helping to avoid unnecessary variability in real activity and interest rates.

The President also took the opportunity to stress that decisive structural reforms should remain an important element in Member States' policies to enhance the growth potential of the euro area.

These views were shared by the European Parliament in its resolution on the ECB's Annual Report 2000, which emphasised that "the ECB's primary objective is to maintain price stability" and that "its contribution to growth and employment lies first and foremost in the achievement of that objective" (Recital B). Moreover, the resolution also underscored the importance

of structural reform to be undertaken by Member States (Article 4).

Preparations for the introduction of the euro banknotes and coins

In view of the fundamental importance of ensuring a smooth cash changeover, the President reported extensively on the preparations for the introduction of the euro banknotes and coins. More detailed information on the introduction of euro banknotes and coins and the cash changeover is provided in Chapter VI.

One of the issues raised in this context was that of banknote security. The President pointed out that the security features of the euro banknotes reflected the most advanced state of technology so as to ensure that the public can trust in the security of the new banknotes. The particular attention devoted to the security of banknotes is also reflected in the ECB's participation in the preparation of Community legislation to protect the euro banknotes and coins against counterfeiting and the establishment by the ECB of a Counterfeit Analysis Centre for the technical analysis and classification of euro counterfeits. The Counterfeit Analysis Centre shares relevant information with all competent authorities.

Members of the Committee on Economic and Monetary Affairs also enquired about the state of preparation and implementation of the Euro 2002 Information Campaign launched by the Eurosystem. The President explained that the general objective of the information campaign was to provide the general public with all practical information needed for a smooth cash changeover. The information campaign, headed by the slogan "*the EURO. OUR money*", was being closely co-ordinated with the governments and changeover boards of the participating Member States in order to ensure the maximum impact of the information given. The Eurosystem had also paid utmost attention to ensuring that vulnerable groups,

such as the blind and partially sighted, are provided with the information and training needed to become familiar with the new banknotes.

Committee members also addressed the issue of the frontloading and sub-frontloading of euro banknotes and coins. In this context, the question was raised as to whether the general public should be provided with euro banknotes prior to the official changeover date. The President pointed out that in assessing this issue the Eurosystem had had to take a global perspective, covering all relevant aspects and focusing on the general interest. After extensive consultation with the competent professional organisations it was concluded that the disadvantages of sub-frontloading euro banknotes to the general public would outweigh the possible advantages. Consequently, the Governing Council of the ECB had taken the decision – which was supported by the ECOFIN ministers – not to provide the general public with euro banknotes before 1 January 2002. Instead, the ECB suggested a number of measures to facilitate a smooth cash changeover which, to a large extent, have been taken into account in the national changeover scenarios prepared by Member States.

Improving cross-border retail payment services in euro

An important part of the exchange of views between the European Parliament and the President was devoted to the question of how to improve retail payment services in euro. Committee members asked for the ECB's views on how to achieve a substantial decrease in fees levied for such services and how the ECB was contributing to this objective.

The President explained that from the start of Stage Three of EMU the Eurosystem had been paying much attention to this issue, as evidenced by several ECB publications. The Eurosystem fully shares the European

Parliament's view that an integrated area for payments is a necessary complement to the single currency area and will further enhance public support for the euro. To this end, it has defined seven objectives considered to be indispensable for the achievement of a single payments area for the euro. Moreover,

the Eurosystem has been actively engaged in discussions with the banking industry so as to act as a catalyst for change in this area.

More detailed information on cross-border retail payments in euro may be found in Chapter VII.



Luxembourg: **The Banque centrale du Luxembourg**
welcoming €-day on 1 January 2002

Chapter XII

The institutional framework of the Eurosystem and the European System of Central Banks

I The Eurosystem and the European System of Central Banks



The European System of Central Banks (ESCB) is composed of the European Central Bank (ECB) and the national central banks (NCBs) of all 15 EU Member States, i.e. it includes the three NCBs of the Member States which have not yet adopted the euro. In order to enhance transparency and facilitate understanding of the structure of central banking in the euro area, the term “Eurosystem” has been adopted by the Governing Council of the ECB. The Eurosystem comprises the ECB and the NCBs of the Member States which have adopted the euro. As long as there are Member States which have not yet adopted the euro, it will be necessary to make a distinction between the Eurosystem and the ESCB.

The ECB has legal personality under public international law. It has been established as the core of the Eurosystem and ensures that the tasks of the Eurosystem are carried out either through its own activities or via the

NCBs. While decision-making within the Eurosystem and the ESCB is centralised, the ECB, in taking its decisions on the way in which the tasks of the ESCB should be carried out, is committed to the principle of decentralisation in accordance with the Statute of the ESCB.

Each of the NCBs has legal personality according to the national law of its respective country. The euro area NCBs, which form an integral part of the Eurosystem, carry out the tasks conferred upon the Eurosystem in accordance with the rules established by the ECB’s decision-making bodies. The NCBs also contribute to the work of the ESCB through the participation of their representatives in the various ESCB Committees (see Section 5 below). The NCBs may perform non-Eurosystem functions on their own responsibility, unless the Governing Council finds that such functions interfere with the objectives and tasks of the Eurosystem.

2 The decision-making bodies of the ECB

The Eurosystem and the ESCB are governed by the decision-making bodies of the ECB: the Governing Council and the Executive Board. Without prejudice to this, the General Council is constituted as a third decision-making body of the ECB, if and for as long as there are Member States which have not yet adopted the euro. The functioning of the decision-making bodies is governed by the Treaty establishing the European Community, the Statute of the ESCB and the relevant Rules of Procedure.¹

2.1 The Governing Council

The Governing Council, which is the supreme decision-making body of the ECB, comprises all the members of the Executive Board and the governors of the NCBs of the Member States which have adopted the euro. According to the Treaty, the main responsibilities of the Governing Council are:

- to adopt the guidelines and take the decisions necessary to ensure the performance of the tasks entrusted to the Eurosystem; and
- to formulate the monetary policy of the euro area, including, as appropriate, decisions relating to intermediate monetary objectives, key interest rates and the supply of reserves in the Eurosystem, and to establish the necessary guidelines for their implementation.

When taking decisions on monetary policy and on other tasks of the Eurosystem, the

members of the Governing Council do not act as national representatives, but in a fully independent personal capacity. This is reflected in the principle of “one member, one vote”.

In 2001 the Governing Council met, as a rule, every other week at the ECB's premises in Frankfurt am Main, Germany. Seven meetings, including some non-scheduled meetings, were held by means of a teleconference. Moreover, in line with the decision taken earlier that the Governing Council would meet twice a year in another euro area country, one meeting was hosted by the Central Bank of Ireland in Dublin and one by the Oesterreichische Nationalbank in Vienna. As mentioned in Chapter XI, in November 2001 the Governing Council decided to change the set-up of its meetings in such a way that there would be an in-depth assessment of monetary and economic developments and related decisions specifically at the first meeting in the month, while, as a rule, the second meeting of the month would concentrate on issues related to other tasks and responsibilities of the ECB and the Eurosystem.

¹ The Rules of Procedure have been published in the *Official Journal of the European Communities*, see *Rules of Procedure of the European Central Bank*, OJ L 125, 19.5.1999, p. 34 and L 314, 8.12.1999, p. 32; *Rules of Procedure of the General Council of the ECB*, OJ L 75, 20.3.1999, p. 36 and L 156, 23.6.1999, p. 52; *Decision of the European Central Bank of 12 October 1999 concerning the Rules of Procedure of the Executive Board of the European Central Bank (ECB/1999/7)*, OJ L 314, 8.12.1999, p. 34. With the exception of the latter, they have been reproduced in the ECB's legal yearbook “*Compendium: Collection of legal instruments, June 1998 – December 2001*”, March 2002, which is also available on the ECB's website.

The Governing Council



Back row (left to right): Yves Mersch, Lucas D. Papademos, J. Caruana, Antonio Fazio, Matti Vanhala, Guy Quaden, Ernst Welteke, Nout Wellink, Jean-Claude Trichet, Maurice O'Connell, Klaus Liebscher, Vítor Constâncio
Front row (left to right): Otmar Issing, Tommaso Padoa-Schioppa, Christian Noyer, Willem F. Duisenberg, Sirkka Hämäläinen, Eugenio Domingo Solans

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 Matti Vanhala
 Nout Wellink
 Ernst Welteke

President of the ECB
Vice-President of the ECB
Governor of the Banco de España
Governor of the Banco de Portugal
Member of the Executive Board of the ECB
Governor of the Banca d'Italia
Member of the Executive Board of the ECB
Governor of the Central Bank of Ireland
Member of the Executive Board of the ECB
Governor of the Oesterreichische Nationalbank
Governor of the Banque centrale du Luxembourg
Governor of the Central Bank of Ireland
Member of the Executive Board of the ECB
Governor of the Bank of Greece
Governor of the Nationale Bank van België/
Banque Nationale de Belgique
Governor of the Banque de France
Governor of Suomen Pankki – Finlands Bank
President of De Nederlandsche Bank
President of the Deutsche Bundesbank

2.2 The Executive Board

The Executive Board comprises the President, the Vice-President and four other members, appointed by common accord of the governments of the Member States which have adopted the euro at the level of the Heads of State or Government. The main responsibilities of the Executive Board are:

- to prepare the meetings of the Governing Council;
- to implement the monetary policy in the euro area in accordance with the guidelines and decisions laid down by the Governing

Council and, in doing so, to give the necessary instructions to the euro area NCBs;

- to manage the current business of the ECB; and
- to exercise certain powers delegated to it by the Governing Council, including some of a regulatory nature.

Current practice is for the Executive Board to meet at least once a week in order to take decisions on the implementation of monetary policy, the preparation of the meetings of the Governing Council and internal ECB matters.



*Back row (left to right): Eugenio Domingo Solans, Tommaso Padoa-Schioppa, Otmar Issing
Front row: Christian Noyer, Willem F. Duisenberg, Sirkka Hämäläinen*

Willem F. Duisenberg
Christian Noyer
Eugenio Domingo Solans
Sirkka Hämäläinen
Otmar Issing
Tommaso Padoa-Schioppa

*President of the ECB
Vice-President of the ECB
Member of the Executive Board of the ECB
Member of the Executive Board of the ECB
Member of the Executive Board of the ECB
Member of the Executive Board of the ECB*

2.3 The General Council

The General Council is composed of the President and the Vice-President of the ECB and the governors of all 15 NCBs of the EU. It carries out those tasks taken over from the European Monetary Institute which still have to be performed by the ECB in Stage Three of EMU on account of the fact that not all the Member States have adopted the euro. Therefore, the General Council is primarily responsible for reporting on the progress made towards convergence by the Member States which have not yet adopted the euro² and for giving advice on the necessary preparations for irrevocably fixing the exchange rates of the currencies of those

Member States (see Chapter IV). Moreover, the General Council contributes to particular activities of the ESCB, such as advisory functions (see Chapter X) and the collection of statistical information (see Chapter IX). In 2001 the General Council met four times. Two of these meetings were held by means of a teleconference.

² *In accordance with the Protocol on certain provisions relating to the United Kingdom of Great Britain and Northern Ireland and the Protocol on certain provisions relating to Denmark, both of which are annexed to the Treaty, this reporting will be carried out for the United Kingdom and Denmark only if they decide to apply to adopt the euro.*

The General Council



*Back row (left to right): Klaus Liebscher, Guy Quaden, Antonio Fazio, Matti Vanhala, Lucas D. Papademos, Urban Bäckström, Ernst Welteke, Nout Wellink, Edward A. J. George, Maurice O'Connell, Jean-Claude Trichet
Front row (left to right): J. Caruana, Yves Mersch, Christian Noyer, Willem F. Duisenberg, Bodil Nyboe Andersen, Vítor Constâncio*

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*President of the ECB
 Vice-President of the ECB
 Governor of Danmarks Nationalbank
 Governor of Sveriges Riksbank
 Governor of the Banco de España
 Governor of the Banco de Portugal
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 Governor of the Central Bank of Ireland

 Governor of the Bank of Greece
 Governor of the Nationale Bank van België/
 Banque Nationale de Belgique
 Governor of the Banque de France
 Governor of Suomen Pankki – Finlands Bank
 President of De Nederlandsche Bank
 President of the Deutsche Bundesbank*

3 The organisation of the ECB

3.1 Corporate governance

In addition to the decision-making bodies of the ECB described in the previous sections, the corporate governance of the ECB also encompasses a number of external and internal control layers.

The Statute of the ESCB provides for two layers, namely the external auditors and the European Court of Auditors. The external auditors audit the annual accounts of the ECB (Article 27.1 of the Statute of the ESCB). The European Court of Auditors examines the operational efficiency of the management of the ECB (Article 27.2).

Moreover, the Directorate Internal Audit, which reports directly to the President of the ECB, continuously performs audit missions under a mandate from the Executive Board. The mandate of the Directorate Internal Audit is defined in the ECB Audit Charter. The Charter was established on the basis of professional standards which apply internationally.³ Furthermore, the Internal Auditors Committee is responsible for audit missions under a mandate from the Governing Council. The ESCB audit policy was established by the Governing Council in order to ensure audit coverage for joint projects and joint operational systems at the ESCB level, which is carried out by the Internal Auditors Committee.

The internal control structure of the ECB is based on a functional approach, whereby each organisational unit (Division, Directorate or Directorate General) is responsible for its own internal control and efficiency. In order to ensure this, the business units implement a set of operational control procedures within their area of responsibility. In addition to these controls, certain organisational units advise and make proposals to the Executive Board on specific control issues on a horizontal basis.

The Code of Conduct of the European Central Bank gives guidance to, and sets benchmarks for, the staff of the ECB and the members of the Executive Board, all of whom are encouraged to maintain high standards of professional ethics in the performance of their duties at the ECB as well as in their relations with NCBs, public authorities, market participants, media representatives and the public in general.⁴ In this respect, it echoes the inquiry conducted on the European Ombudsman's own initiative into a code of good administrative behaviour for Community officials in their relations with the public.

The Executive Board also adopted a set of internal controls, including detailed rules preventing the abuse of sensitive financial market information ("insider trading rules" and "Chinese walls"). The staff of the ECB and the members of the Executive Board are thereby prohibited from taking advantage, whether directly or indirectly, of inside information to which they have access by conducting private financial activities at their own risk and for their own account, or at the risk and for the account of a third party.⁵ Moreover, the Executive Board has appointed an Ethics Adviser to provide guidance on some aspects of professional conduct and professional secrecy. The Ethics Adviser ensures a consistent interpretation of the staff rules, in particular the insider trading rules.

The budgetary authority of the ECB is vested in the Governing Council, which adopts the budget of the ECB, acting on a proposal put

³ *The principles and standards of the relevant professional institutes, such as the Institute for Internal Auditors (IIA) and the Information Systems Audit and Control Association (ISACA).*

⁴ *See the Code of Conduct of the European Central Bank in accordance with Article 11.3 of the Rules of Procedure of the European Central Bank, OJ C 76, 8.3.2001, p. 12 and the ECB's website.*

⁵ *See Part 1.2 of the ECB Staff Rules containing the rules on professional conduct and professional secrecy, OJ C 236, 22.8.2001, p. 13 and the ECB's website.*

forward by the Executive Board. In addition, the Budget Committee assists the Governing Council in matters related to the ECB's budget.

In order to join the efforts of the institutions of the European Communities and the Member States to combat fraud and other illegal activities, the originally existing layers of control within the ECB were enhanced by the establishment of an independent Anti-Fraud Committee on the basis of the ECB Decision on fraud prevention (ECB/1999/5)⁶. The Anti-Fraud Committee, which held three meetings in 2001, is kept regularly informed by the Directorate Internal Audit with regard to all issues related to the performance of its tasks.

In accordance with Regulation (EC) No. 45/2001 of the European Parliament and of the Council, the Executive Board appointed a data protection officer with effect from 1 January 2002.

3.2 Human resources management

Staffing

At the end of 2001 the number of staff employed by the ECB from all 15 Member States stood at 1,043, with total budgeted staff positions of 1,118.5. This compares with 941 staff employed at the end of 2000. The ECB's annual staff position budget for 2002 was set at a maximum of 1,154.5 – an increase of 3.2% compared to the 2001 annual staff position budget.

A Research Visitors programme was launched in the Directorate General Research. It focuses on specific high-level research projects in the field of monetary policy. 13 Research Visitors have been contracted for an average duration of two months.

Also in the Directorate General Research, the ECB's Graduate Research programme, which is aimed at highly talented research students at an advanced stage of their

doctoral studies, attracted 13 participants for an average duration of three months.

In the ECB as a whole, and across almost all business areas, 87 trainees, students and graduates, mainly with an economics background, were contracted for an average duration of three and a half months.

Human resources management policies

The rules for recruitment and promotion have been codified and laid down in respective Administrative Circulars. The rules aim to ensure that recruitment and promotion are based upon the principles of professional qualification, transparency, equal access and non-discrimination, and to establish fair and equal practices in the recruitment and promotion procedures.

As a complement to the annual staff appraisal exercise, a multi-source feedback process has been introduced for managers. The focus of the process is on self-development in terms of managerial skills. Managers (Heads of Division, Directors, Deputy Directors General and Directors General) and members of the Executive Board can volunteer to participate in the process, in which they seek feedback from those reporting directly to them, their peers and, if appropriate, external parties. 39 managers volunteered to participate in the first exercise.

The childcare facility and the European School

The ECB's childcare facility has moved from provisional facilities to its permanent location. However, in view of the high demand for places, the provisional facility will remain open until the permanent location can be extended. The definitive premises should

⁶ See the Decision of the European Central Bank of 7 October 1999 on fraud prevention (ECB/1999/5), OJ L 291, 13.11.1999, p. 36. In connection with this, the Rules of Procedure of the European Central Bank were amended by a new Article 9a, see OJ L 314, 8.12.1999, p. 32.

ultimately accommodate approximately 130 children aged up to 6 years.

The building plans for the European School, which was established by the Board of Governors of the European Schools, have met with delays. The school will therefore open for the 2002/2003 school year, for primary and pre-primary classes, in temporary premises. The school will have four language sections: English, French, German and Italian.

Staff relations

In addition to formal consultations on changes in the Conditions of Employment, the Staff Rules and other issues, the dialogue with the Staff Committee covered several other topics in 2001, in particular in the second half of the year the security situation at the ECB.

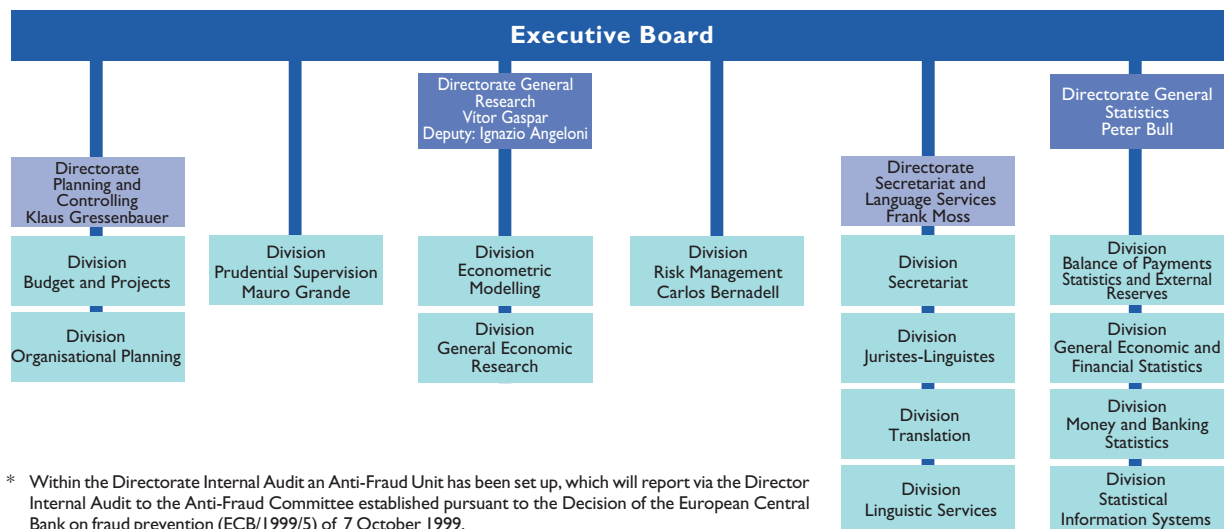
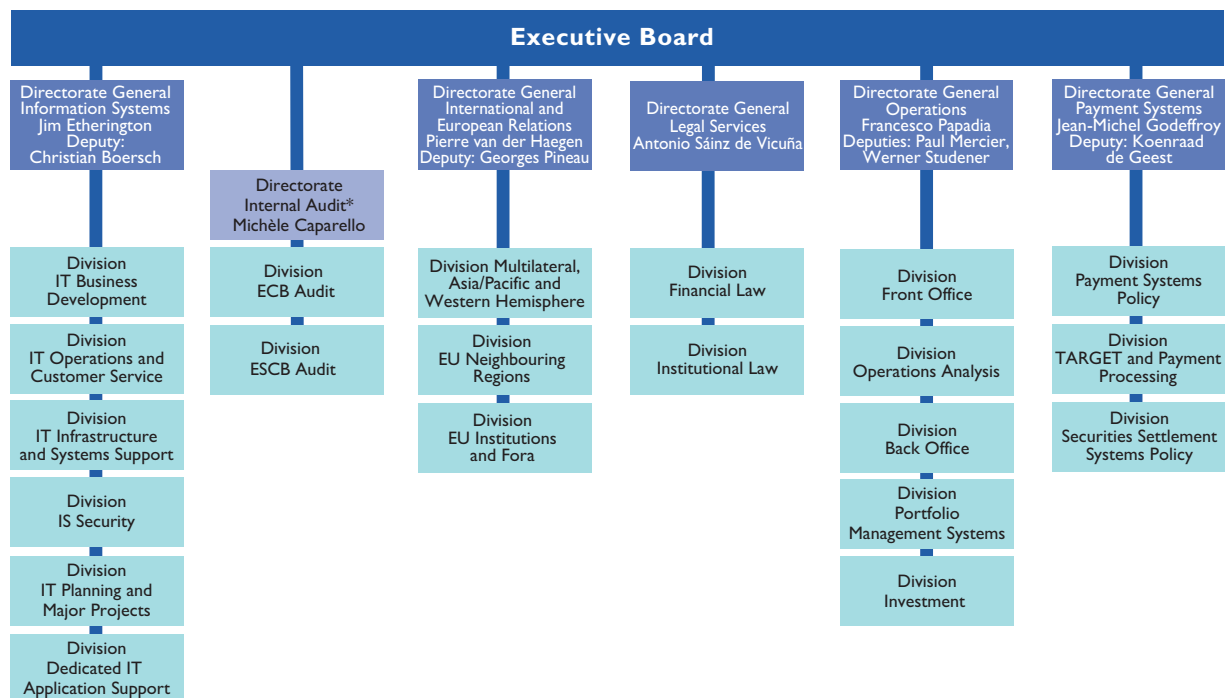
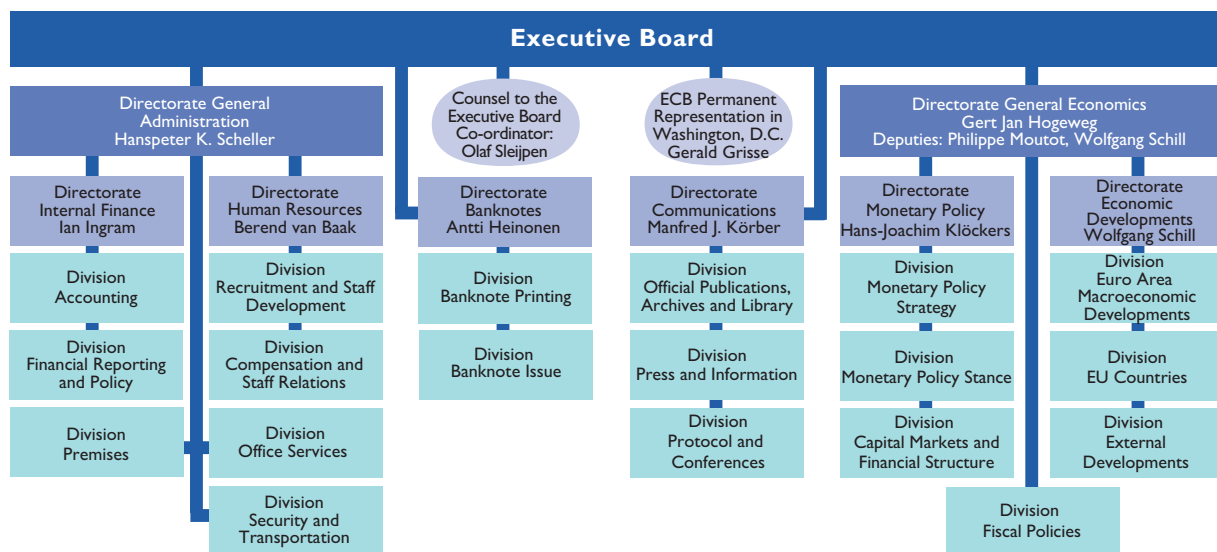
The Union of the Staff of the ECB (USE) gave its views on proposed changes to the Conditions of Employment and the Staff Rules. The issue of the recognition of the

USE and an external trade union as social partners for the negotiation of collective labour agreements is still pending in the European Court of First Instance.

3.3 The organisation chart of the ECB

In the light of experience gathered during the first three and a half years of the existence of the ECB, the Executive Board decided on a number of organisational adjustments. In order to maximise the synergy between business areas, the Executive Board decided to change the responsibilities of individual Executive Board members. Moreover, some changes were made in the functions of ECB business areas. These changes took effect on 1 January and 1 March 2002, respectively, and are reflected in the new organisation chart of the ECB. The new organisation chart also better reflects the fact that the Executive Board acts as a collegiate body when managing the day-to-day business of the ECB.

3.3 The organisation chart of the ECB



* Within the Directorate Internal Audit an Anti-Fraud Unit has been set up, which will report via the Director Internal Audit to the Anti-Fraud Committee established pursuant to the Decision of the European Central Bank on fraud prevention (ECB/1999/5) of 7 October 1999.

4 ESCB Social Dialogue

On the basis of an agreement with three European trade union federations representing staff employed in the ESCB, the ECB conducts a Social Dialogue with staff representatives from the NCBs and the ECB. The objective of the Social Dialogue is to inform staff and to discuss decisions to be taken by the decision-making bodies of the ECB with regard to the tasks of the ESCB

insofar as they may have a major impact on the employment situation and working conditions at the central banks. In 2001, the Social Dialogue was convened twice. The major topic of discussion was the future printing of euro banknotes. Other issues were developments in TARGET and in prudential supervision.

5 ESCB Committees

The ESCB Committees have continued to play an important role in the performance of the tasks of the Eurosystem/ESCB. In July 2001 the Governing Council renewed their mandates and re-appointed their respective chairpersons for a further three years. At the request of both the Governing Council and the Executive Board, the ESCB Committees have provided expertise in their fields of competence and have facilitated the decision-making process. The ESCB Committees are composed of representatives from the Eurosystem central banks and, where

appropriate, of other competent bodies, such as national supervisory authorities in the case of the Banking Supervision Committee. The NCBs of the Member States which have not yet adopted the euro have also each appointed representatives to take part in the meetings of an ESCB Committee whenever it deals with matters which fall within the field of competence of the General Council. At present there are 12 ESCB Committees, all of which were established under Article 9 of the Rules of Procedure of the ECB.

ESCB Committees and their chairpersons

| | |
|--|---|
| Accounting and Monetary Income Committee (AMICO) Hanspeter K. Scheller | International Relations Committee (IRC) Hervé Hannoun |
| Banking Supervision Committee (BSC) Edgar Meister | Legal Committee (LEGCO) Antonio Sáinz de Vicuña |
| Banknote Committee (BANCO) Antti Heinonen | Market Operations Committee (MOC) Francesco Papadia |
| External Communications Committee (ECCO) Manfred J. Körber | Monetary Policy Committee (MPC) Gert Jan Hogeweg |
| Information Technology Committee (ITC) Jim Etherington | Payment and Settlement Systems Committee (PSSC) Jean-Michel Godeffroy |
| Internal Auditors Committee (IAC) Michèle Caparelli | Statistics Committee (STC) Peter Bull |

In addition to the ESCB Committees, the Budget Committee was established in 1998 by the Governing Council on the basis of Article 15 of the Rules of Procedure of the ECB. It is composed of representatives of the Eurosystem central banks and assists the

Governing Council in matters related to the ECB's budget. In July 2001 the Governing Council adopted a revised mandate for the Budget Committee and re-appointed its chairman, Liam Barron, for a further three years.



The Netherlands: **Young people examining their first euro banknotes, withdrawn from an ATM in Maastricht a few minutes into 1 January 2002**

Chapter XIII

Annual Accounts of the ECB and Consolidated Balance Sheet of the Eurosystem 2001

Balance Sheet as at 31 December 2001

| Assets | Note number | 2001 € | 2000 € |
|--|-------------|-----------------------|-----------------------|
| 1 Gold and gold receivables | 1 | 7,766,265,040 | 7,040,906,565 |
| 2 Claims on non-euro area residents denominated in foreign currency | 2 | | |
| 2.1 Receivables from the IMF | | 72,074,161 | 0 |
| 2.2 Balances with banks and security investments, external loans and other external assets | | 41,162,620,238 | 37,475,047,829 |
| | | 41,234,694,399 | 37,475,047,829 |
| 3 Claims on euro area residents denominated in foreign currency | 2 | 3,636,568,460 | 3,824,522,571 |
| 4 Claims on non-euro area residents denominated in euro | 3 | | |
| Balances with banks, security investments and loans | | 391,170,869 | 698,252,463 |
| 5 Other claims on euro area credit institutions denominated in euro | 4 | 0 | 288,143,000 |
| 6 Securities of euro area residents denominated in euro | 5 | 4,423,742,115 | 3,667,731,194 |
| 7 Intra-Eurosystem claims | 6 | | |
| Other claims within the Eurosystem (net) | | 9,697,303,920 | 13,080,794,017 |
| 8 Other assets | | | |
| 8.1 Tangible and intangible fixed assets | 7.1 | 100,585,654 | 64,168,178 |
| 8.2 Other financial assets | 7.2 | 92,762,198 | 81,758,341 |
| 8.3 Off-balance-sheet instrument revaluation differences | | 0 | 251,564,471 |
| 8.4 Accruals and deferred expenditure | 7.3 | 620,508,777 | 862,316,142 |
| 8.5 Sundry items | 7.4 | 97,569,394 | 3,747,484 |
| | | 911,426,023 | 1,263,554,616 |
| Total assets | | 68,061,170,826 | 67,338,952,255 |
| Memorandum item | | | |
| Forward claims denominated in euro | | 0 | 2,885,697,468 |

| Liabilities | Note number | 2001 € | 2000 € |
|---|----------------|-----------------------|-----------------------|
| 1 Liabilities to euro area credit institutions denominated in euro | 8 | 0 | 288,143,000 |
| 2 Liabilities to other euro area residents denominated in euro | 9 | 1,022,000,000 | 1,080,000,000 |
| 3 Liabilities to non-euro area residents denominated in euro | 10 | 271,375,580 | 3,421,112,123 |
| 4 Liabilities to euro area residents denominated in foreign currency | 11 | 17,192,783 | 0 |
| 5 Liabilities to non-euro area residents denominated in foreign currency Deposits, balances and other liabilities | 11 | 5,840,349,099 | 4,803,381,255 |
| 6 Intra-Eurosystem liabilities Liabilities equivalent to the transfer of foreign reserves | 12 | 40,497,150,000 | 39,468,950,000 |
| 7 Other liabilities | 13 | | |
| 7.1 Accruals and deferred income | | 1,759,319,678 | 1,626,022,228 |
| 7.2 Sundry items | | 94,122,190 | 52,005,650 |
| | | 1,853,441,868 | 1,678,027,878 |
| 8 Provisions | 14 | 2,803,216,269 | 2,637,039,135 |
| 9 Revaluation accounts | 15 | 9,429,002,830 | 7,972,626,864 |
| 10 Capital and reserves | 16 | | |
| 10.1 Capital | | 4,097,229,250 | 3,999,550,250 |
| 10.2 Reserves | | 408,393,225 | 0 |
| | | 4,505,622,475 | 3,999,550,250 |
| 11 Profit for the year | | 1,821,819,922 | 1,990,121,750 |
| Total liabilities | | 68,061,170,826 | 67,338,952,255 |
| Memorandum item Forward liabilities denominated in foreign currency | | 0 | 2,885,697,468 |

Profit and Loss Account for the year ending 31 December 2001

| | Note number | 2001 € | 2000 € |
|--|------------------|----------------------|----------------------|
| Interest income on foreign reserve assets | | 1,707,431,459 | 2,507,164,892 |
| Other interest income | | 2,271,293,068 | 4,657,469,867 |
| <i>1.1 Interest income</i> | | 3,978,724,527 | 7,164,634,759 |
| Remuneration of NCBs' claims in respect of foreign reserves transferred | | (1,509,312,118) | (1,375,110,826) |
| Other interest expense | | (1,698,022,587) | (4,375,476,075) |
| <i>1.2 Interest expense</i> | | (3,207,334,705) | (5,750,586,901) |
| 1 Net interest income | 1 | 771,389,822 | 1,414,047,858 |
| 2.1 Realised gains/losses arising from financial operations | 2 | 1,351,881,733 | 3,352,768,266 |
| 2.2 Write-downs on financial assets and positions | 3 | (109,023,392) | (1,084,563) |
| 2.3 Transfer to/from provisions for foreign exchange rate and price risks | | 109,023,392 | (2,600,000,000) |
| 2 Net result of financial operations, write-downs and risk provisions | | 1,351,881,733 | 751,683,703 |
| 3 Net income from fees and commissions | 4 | 298,120 | 673,498 |
| 4 Other income | 5 | 1,393,851 | 904,158 |
| Total net income | | 2,124,963,526 | 2,167,309,217 |
| 5 Staff costs | 6 & 7 | (97,288,818) | (80,275,827) |
| 6 Administrative expenses | 8 | (185,712,394) | (82,808,524) |
| 7 Depreciation of tangible and intangible fixed assets | | (20,142,392) | (14,103,116) |
| Profit for the year | | 1,821,819,922 | 1,990,121,750 |

Frankfurt am Main, 12 March 2002

EUROPEAN CENTRAL BANK

Willem F. Duisenberg
President

Accounting policies¹

Form and presentation of the financial statements

The financial statements of the European Central Bank (ECB) have been designed to present fairly the financial position of the ECB and the results of its operations. They have been drawn up in accordance with the following accounting policies, which the Governing Council of the ECB considers to be appropriate to the function of a central bank. These policies are consistent with the provisions of Article 26.4 of the Statute of the ESCB, which require a standardised approach to the rules governing the accounting and reporting operations of the Eurosystem.

Accounting principles

The following accounting principles have been applied: economic reality and transparency, prudence, recognition of post-balance-sheet events, materiality, the accruals principle, going concern and consistency and comparability.

Basis of accounting

The accounts have been prepared on a historical cost basis, modified to include market valuation of marketable securities, gold and all other on-balance-sheet and off-balance-sheet assets and liabilities denominated in foreign currency. Transactions in financial assets and liabilities are reflected in the accounts on the basis of the date on which they are settled.

Gold, foreign currency assets and liabilities

Assets and liabilities denominated in foreign currency are converted into euro at the exchange rate prevailing on the balance sheet date. Income and expenses are converted at

the exchange rate prevailing at the time of the transaction. The revaluation of foreign exchange assets and liabilities is performed on a currency-by-currency basis, including on-balance-sheet and off-balance-sheet instruments.

Revaluation to the market price for assets and liabilities denominated in foreign currency is treated separately from the exchange rate revaluation.

No distinction is made between the price and currency revaluation differences for gold. Instead, a single gold valuation is accounted for on the basis of the price in euro per fine ounce of gold, which is derived from the exchange rate of the euro against the US dollar on 28 December 2001.

Securities

All marketable debt securities and similar assets are valued at the mid-market prices prevailing at the balance sheet date. For the year ending on 31 December 2001, mid-market prices on 28 December 2001 were used. Non-marketable securities are valued at cost.

Income recognition

Income and expenses are recognised in the period in which they are earned or incurred. Realised gains and losses are taken to the profit and loss account. An average cost method is used on a daily basis to calculate the acquisition cost of individual items. In the event of an unrealised loss on any item at the year-end, the average cost of that item is reduced in line with the end-of-year exchange rate and/or market price.

¹ The detailed accounting policies of the ECB are laid down in a Decision of the Governing Council of the ECB of 12 December 2000 (ECB/2000/16) OJ L 33, 2.2.2001.

Unrealised gains are not recognised as income, but are transferred directly to a revaluation account.

Unrealised losses are taken to the profit and loss account if they exceed previous revaluation gains registered in the corresponding revaluation account. Unrealised losses in any one security or currency or in gold are not netted against unrealised gains in other securities, currencies or gold.

Premiums or discounts arising on purchased securities are calculated and presented as part of interest income and are amortised over the remaining life of the assets.

Repurchase agreements

Repurchase agreements are recorded in the balance sheet as collateralised inward deposits. The balance sheet shows the deposits and the value of the securities used as collateral. Securities sold under this type of agreement remain on the balance sheet of the ECB and are treated as if they had remained part of the portfolio from which they were sold. Agreements involving securities denominated in foreign currency have no effect on the average cost of the currency position.

Reverse repurchase agreements are recorded as collateralised loans on the assets side of the balance sheet, for the value of the loan. Securities acquired under this type of agreement are not revalued.

Repurchase agreements and reverse repurchase agreements (including security lending transactions) conducted under an automated security lending programme are recorded with effect on the balance sheet for such transactions only where collateral is provided by the borrower in the form of cash over the maturity of the operation. In 2001, the ECB did not receive any collateral in the form of cash over the maturity of such an operation.

Off-balance-sheet instruments

Currency instruments, namely foreign exchange forward transactions, forward legs of foreign exchange swaps and other currency instruments involving an exchange of one currency for another at a future date, are included in the net foreign currency position for the purpose of calculating foreign exchange gains and losses. Interest rate instruments are revalued on an item-by-item basis and treated in a similar manner to securities. For foreign exchange swaps, the forward position is revalued in conjunction with the spot position. Consequently, no net valuation differences arise since the currency received and the obligation to return it are both valued at the same market rate in euro. Profits and losses arising from off-balance-sheet instruments are recognised and treated in the same way as profits and losses relating to on-balance-sheet instruments.

Post-balance-sheet events

Assets and liabilities are adjusted for events that occur between the annual balance sheet date and the date on which the Governing Council of the ECB approves the financial statements if such events materially affect the condition of assets and liabilities at the balance sheet date.

Intra-ESCB balances

Intra-ESCB transactions are cross-border transactions that occur between two EU central banks. These transactions are processed primarily via TARGET² and give rise to bilateral balances in accounts held between those EU central banks connected to TARGET. These bilateral balances are novated to the ECB daily, leaving each NCB with a single net bilateral position vis-à-vis the ECB only. This position in the books of the ECB represents the net claim or liability of each NCB against the rest of the ESCB.

² TARGET is the Trans-European Automated Real-time Gross settlement Express Transfer system (see also Chapter VII).

Intra-ESCB balances of the participating NCBs with the ECB (except for the capital of the ECB and positions resulting from the transfer of foreign reserve assets to the ECB) are described as intra-Eurosystem claims or liabilities and are presented in the Balance Sheet of the ECB as a single net asset or liability position.

Intra-ESCB balances of the non-participating NCBs with the ECB are disclosed under "Liabilities to non-euro area residents denominated in euro".

Treatment of tangible and intangible fixed assets

Tangible fixed assets are valued at cost less depreciation. Depreciation is calculated on a straight-line basis, beginning in the quarter after acquisition and continuing over the expected economic lifetime of the asset, namely:

- Computers, related hardware and software, and motor vehicles: four years;
- Equipment, furniture and plant in building: ten years;
- Building and capitalised refurbishment expenditure: twenty-five years.

Fixed assets costing less than €10,000 are written off in the year of purchase.

The ECB's retirement plan

The ECB operates a defined contribution pension scheme. The assets of the plan, which exist solely for the purpose of providing benefits for members of the plan and their dependants, are included in the other assets of the ECB and are identified separately. Valuation gains and losses arising on the assets of the pension fund are recognised as income and expenditure of the retirement plan in the year in which they arise. The benefits payable from the core benefit account, resulting from the contributions of the ECB, have minimum guarantees

underpinning the defined contribution benefits.

Entry of Greece into the euro area

Following the entry of Greece into the euro area on 1 January 2001:³

- the Bank of Greece transferred to the ECB an amount of €97,679,000 representing the remaining 95% of its capital subscription to add to the 5% already paid-up;
- between 2 and 5 January 2001, and in accordance with Article 30.1 of the Statute of the ESCB, the Bank of Greece transferred foreign reserve assets to the ECB with a total value equivalent to €1,278,260,161⁴. These foreign reserve assets comprised amounts of gold, US dollars and Japanese yen in the same proportions as the amounts transferred by the other participating NCBs at the beginning of 1999. The currency component was transferred in the form of cash and securities. The Bank of Greece was subsequently credited with a claim on the ECB in respect of the paid-up capital and foreign reserve assets equivalent to the amounts transferred.
- the depreciation of the euro, in particular vis-à-vis the US dollar, implied that the euro equivalent of the foreign reserve assets transferred by the Bank of Greece, calculated using rates as of 29 December 2000, was higher than would have been the case had the Bank of Greece transferred these assets along with the other participating NCBs in 1999. Had the Bank of Greece been credited with a claim of €1,278,260,161, this would have implied

³ Council Decision (2000/427/EC) of 19 June 2000 in accordance with Article 122 (2) of the Treaty on the adoption by Greece of the single currency on 1 January 2001, and Article 49 of the Statute of the ESCB and the legal acts adopted pursuant to that Article by the Governing Council of the ECB on 16 November 2000.

⁴ This latter figure was determined by multiplying the euro value, at the exchange rates prevailing on 29 December 2000, of the foreign reserve assets already transferred to the ECB by the existing members of the Eurosystem by the ratio between the number of shares subscribed by the Bank of Greece and the number of shares already paid up by the other NCBs without a derogation.

that they would have had a higher share in the total claims of the participating NCBs on the ECB than their respective share in the capital of the ECB would have permitted. Consequently this claim was reduced, in agreement with the Bank of Greece, to €1,028,200,000 so that the claim of the Bank of Greece on the ECB would be in line with its share in the ECB's capital.

- the difference between the adjusted claim and the value of the assets transferred was recorded as part of the contributions of the Bank of Greece, due under Article 49.2 of the Statute of the ESCB, to the provisions and reserves of the ECB existing as at 31 December 2000. The total payment by the Bank of Greece in respect of these contributions amounted to €285,794,874 and can be broken down as follows:

Contributions of the Bank of Greece under Article 49.2 of the Statute of the ESCB

| ECB provisions and reserves | Amount € | Balance sheet note |
|--|---------------------|-------------------------------|
| Special provision against exchange rate and interest rate risk | 67,732,230 | 14 |
| Revaluation accounts | 207,693,768 | 15 |
| General reserve fund | 10,368,876 | 16 |
| Total | 285,794,874 | |

The outstanding balance of €35,734,713 was paid on 30 March 2001 after the ECB's annual accounts for 2000 had been approved.

Other issues

Having regard to the role of the ECB as a central bank, the Executive Board of the ECB is of the opinion that the publication of a cash flow statement will not provide the readers of the financial statements with any additional relevant information.

In accordance with Article 27 of the Statute of the ESCB, and on the basis of a recommendation of the Governing Council of the ECB, the Council of the European Union has approved the appointment of PricewaterhouseCoopers GmbH as the external auditors of the ECB.

Notes on the Balance Sheet

1 Gold and gold receivables

The ECB holds 24.7 million ounces of fine gold (2000: 24 million ounces). No transactions in gold took place in 2001. The increase in this position is due to revaluation and to the transfer of gold from the Bank of Greece under Article 30.1 of the Statute of the ESCB (see "Gold, foreign currency assets and liabilities" and "Entry of Greece into the euro area" in the notes on accounting policies).

2 Claims on non-euro area and euro area residents denominated in foreign currency

2.1 Receivables from the IMF

This asset represents the ECB's holdings of Special Drawing Rights (SDRs) as at 31 December 2001. In 2001 the ECB agreed to establish a two-way SDR buying and selling arrangement with the International Monetary Fund (IMF) whereby the IMF is authorised to arrange sales or purchases of SDRs against euro, on behalf of the ECB, within minimum and maximum holdings levels.

The SDR is defined in terms of a basket of currencies. Its value is determined as the weighted sum of exchange rates of the four major currencies (US dollar, pound sterling, Japanese yen and euro). For accounting purposes, SDRs are treated as a foreign currency asset (see "Gold, foreign currency assets and liabilities" in the notes on accounting policies).

2.2 Balances with banks and security investments, external loans and other external assets Claims on euro area residents denominated in foreign currency

These claims consist of balances with foreign banks, loans denominated in foreign currency and investments in securities, denominated in US dollars and Japanese yen.

3 Claims on non-euro area residents denominated in euro

As at 31 December 2001, this claim consisted of bank deposits with non-euro area residents.

4 Other claims on euro area credit institutions denominated in euro

As at 31 December 2001, except for those transactions conducted under the automatic securities lending programme (see note 18), there were no outstanding reverse repurchase operations conducted with euro area credit institutions in connection with the management of the ECB's own funds.

5 Securities of euro area residents denominated in euro

These securities comprise marketable debt issued by specific euro area issuers with a high level of credit quality.

6 Intra-Eurosystem claims

This item consists mainly of the TARGET balances of the participating NCBs vis-à-vis the ECB (see "Intra-ESCB balances" in the notes on accounting policies).

| | 2001 € | 2000 € |
|---|------------------|------------------|
| Due from participating central banks in respect of TARGET | 66,908,187,928 | 59,010,910,157 |
| Due to participating central banks in respect of TARGET | (57,210,884,008) | (45,930,059,415) |
| Net position | 9,697,303,920 | 13,080,850,742 |

7 Other assets

7.1 Tangible and intangible fixed assets

These assets comprised the following main items on 31 December 2001:

| | Net book value as at 31 Dec. 2001 € | Net book value as at 31 Dec. 2000 € |
|--|--|--|
| Land and buildings | 39,288,068 | 1,305,097 |
| Computers | 28,703,744 | 21,042,849 |
| Equipment, furniture, plant in building and motor vehicles | 4,492,005 | 4,852,047 |
| Assets under construction | 8,077,125 | 21,691,248 |
| Other fixed assets | 20,024,712 | 15,276,937 |
| Total | 100,585,654 | 64,168,178 |

The principal increase, under the heading “Land and buildings”, relates to capitalised costs of the ECB’s installations at its second site, the Eurotheum, transfers from the category “Assets under construction” following commencement of use of the assets, and the acquisition of an official residence for Presidents of the ECB.

7.2 Other financial assets

The main components of this item are as follows:

- (a) The investment portfolios relating to the ECB pension fund, which are valued at €53.9 million (2000: €42.9 million). The assets held represent the investments of accumulated pension contributions by the ECB and the staff of the ECB as at 31 December 2001, and are managed by an external fund manager. The regular contributions of the ECB and members of the plan have been invested on a monthly basis. The assets of the plan are not fungible with other financial assets of the ECB, and net income thereon does not constitute income of the ECB, but is

reinvested in the funds concerned, pending payment of benefits. The value of the assets held by the plan is based on a valuation by the external fund manager, using year-end market prices.

- (b) The ECB holds 3,000 shares in the Bank for International Settlements, which are included at the acquisition cost of €38.5 million.

7.3 Accruals and deferred expenditure

The principal component of this item is accrued interest on securities and other financial assets.

7.4 Sundry items

The increase in sundry items in 2001 is primarily due to the capitalisation of banknote production costs related to the production of a contingency stock of euro banknotes for the Eurosystem. These costs have been borne in the first instance by the ECB pending the allocation of the stock to NCBs at cost.

This position also includes a claim against the German Federal Ministry of Finance in respect of recoverable value added and other indirect taxes paid. Such taxes are refundable under the terms of Article 3 of the Protocol concerning the Privileges and Immunities of the European Communities, which applies to the ECB by virtue of Article 40 of the Statute of the ESCB.

8 Liabilities to euro area credit institutions denominated in euro

As at 31 December 2001, except for those transactions conducted under the automatic securities lending programme (see note 18), there were no outstanding repurchase operations conducted with euro area credit institutions in connection with the management of the ECB’s own funds.

9 Liabilities to other euro area residents denominated in euro

This item comprises deposits by members of the Euro Banking Association (EBA), which are used in order to provide the ECB with collateral in respect of the EBA's payments settled through the TARGET system.

10 Liabilities to non-euro area residents denominated in euro

These liabilities principally represent balances held at the ECB by non-participating NCBs arising from transactions processed via the TARGET system (see "Intra-ESCB balances" in the notes on accounting policies).

11 Liabilities to euro area and non-euro area residents denominated in foreign currency

These liabilities arise from repurchase agreements conducted with euro area and non-euro area residents in connection with the management of the foreign currency reserves of the ECB.

12 Intra-Eurosystem liabilities

These represent the liabilities to participating NCBs that arose from the transfer of foreign reserve assets to the ECB. The original liabilities were denominated in euro on a fixed basis determined by the value of the assets at the time of their transfer, and are remunerated at the short-term refinancing rates of the Eurosystem, adjusted to reflect a zero return on the gold component (see "Notes on the Profit and Loss Account", note 1). The total liability has increased as a result of the transfer of such assets by the Bank of Greece at the beginning of 2001 (see "Entry of Greece into the euro area" in the notes on accounting policies).

| | Capital key % | € |
|--|------------------|----------------|
| Nationale Bank van België/ Banque Nationale de Belgique | 2.8658 | 1,432,900,000 |
| Deutsche Bundesbank | 24.4935 | 12,246,750,000 |
| Bank of Greece | 2.0564 | 1,028,200,000 |
| Banco de España | 8.8935 | 4,446,750,000 |
| Banque de France | 16.8337 | 8,416,850,000 |
| Central Bank of Ireland | 0.8496 | 424,800,000 |
| Banca d'Italia | 14.8950 | 7,447,500,000 |
| Banque centrale du Luxembourg | 0.1492 | 74,600,000 |
| De Nederlandsche Bank | 4.2780 | 2,139,000,000 |
| Oesterreichische Nationalbank | 2.3594 | 1,179,700,000 |
| Banco de Portugal | 1.9232 | 961,600,000 |
| Suomen Pankki – Finlands Bank | 1.3970 | 698,500,000 |
| Total | 80.9943 | 40,497,150,000 |

13 Other liabilities

This item consists mainly of interest due to the NCBs in respect of their claims relating to the foreign reserves transferred (see note 12). The ECB's liabilities in respect of the pension fund of €53.9 million (2000: €42.9 million) and other accruals are also shown under this item.

14 Provisions

As at 31 December 2000, taking into account the ECB's large exposure to exchange rate and interest rate risk, and the size of its revaluation reserves, it was deemed appropriate to establish a special provision against these risks amounting to €2,600 million. In accordance with Article 49.2 of the Statute of the ESCB, the Bank of Greece also contributed an amount of €67.7 million in March 2001 to this provision (see "Entry of Greece into the euro area" in the notes on accounting policies). The continuing requirement for this provision is reviewed on an annual basis.

This position also includes administrative provisions relating to expenditure on goods and services. Given the ECB's announcement in 2001 of its intention to acquire a site in the city of Frankfurt am Main on which to

construct its permanent premises, it became appropriate to make an adequate provision against the contractual obligation to restore its current premises to their original condition when these are vacated.

15 Revaluation accounts

These accounts represent revaluation reserves arising from unrealised gains on assets and liabilities. The balances include contributions made by the Bank of Greece in accordance with Article 49.2 of the Statute of the ESCB (see “Entry of Greece into the euro area” in the notes on accounting policies).

| | 2001 € | 2000 € |
|------------------|---------------|---------------|
| Gold | 1,691,913,278 | 1,120,787,564 |
| Foreign currency | 7,428,130,700 | 6,228,835,267 |
| Securities | 308,958,852 | 623,004,033 |
| Total | 9,429,002,830 | 7,972,626,864 |

16 Capital and reserves

Capital

The fully paid-up subscriptions of the participating NCBs to the capital of the ECB of €5 billion amount to a total of €4,049,715,000 as shown below:

| | Capital key % | € |
|--|------------------|---------------|
| Nationale Bank van België/ Banque Nationale de Belgique | 2.8658 | 143,290,000 |
| Deutsche Bundesbank | 24.4935 | 1,224,675,000 |
| Bank of Greece | 2.0564 | 102,820,000 |
| Banco de España | 8.8935 | 444,675,000 |
| Banque de France | 16.8337 | 841,685,000 |
| Central Bank of Ireland | 0.8496 | 42,480,000 |
| Banca d'Italia | 14.8950 | 744,750,000 |
| Banque centrale du Luxembourg | 0.1492 | 7,460,000 |
| De Nederlandsche Bank | 4.2780 | 213,900,000 |
| Oesterreichische Nationalbank | 2.3594 | 117,970,000 |
| Banco de Portugal | 1.9232 | 96,160,000 |
| Suomen Pankki – Finlands Bank | 1.3970 | 69,850,000 |
| Total | 80.9943 | 4,049,715,000 |

The non-participating NCBs' contributions, which represent 5% of the amount which would be payable if these countries were to participate in Monetary Union, amount to a total of €47,514,250 as shown below:

| | Capital key % | € |
|-----------------------|------------------|------------|
| Danmarks Nationalbank | 1.6709 | 4,177,250 |
| Sveriges Riksbank | 2.6537 | 6,634,250 |
| Bank of England | 14.6811 | 36,702,750 |
| Total | 19.0057 | 47,514,250 |

These amounts represent contributions to cover the operational costs incurred by the ECB in connection with tasks performed for the non-participating NCBs. The non-participating NCBs are not required to pay up any capital subscriptions beyond the amounts already decided until such time as they join the Eurosystem. They are not entitled to receive any share of the distributable profits of the ECB, nor are they liable to fund any losses of the ECB.

Reserves

In accordance with Article 33 of the Statute of the ESCB and the Governing Council decision of 29 March 2001, an amount of €398 million of the net profit for the year ending 31 December 2000 was transferred to the general reserve fund. The remaining €10.4 million included within this caption relates to the contribution of the Bank of Greece under Article 49.2 of the Statute of the ESCB to the reserves of the ECB (see “Entry of Greece into the euro area” in the notes on accounting policies).

17 Post-balance-sheet events

The Governing Council decided that the ECB and the 12 participating NCBs, which together comprise the Eurosystem, shall issue euro banknotes as from 1 January 2002.⁵ The

⁵ ECB Decision of 6 December 2001 on the issue of euro banknotes (ECB/2001/15), OJ L 337, 20.12.2001, pp. 52-54.

ECB has been allocated a share of 8% of the total value of the euro banknotes in circulation from 2002, while 92% of the euro banknotes are to be issued by the 12 NCBs.

The ECB's share of the total euro banknote issue will be backed by claims on the NCBs as they put the ECB's banknotes into circulation. These claims, which will bear interest⁶, will be allocated among the NCBs in proportion to their respective shares in the ECB's capital.

18 Automatic securities lending programme

As part of the management of the ECB's own funds, the ECB entered into an automatic securities lending programme agreement in 2001, whereby an appointed securities lending agent enters into securities lending transactions on behalf of the ECB with a number of counterparties, designated by the

ECB as eligible counterparties. Under this agreement, transactions in repurchase and reverse repurchase operations, each with a value of €1.6 billion, were outstanding as at 31 December 2001 (see "Repurchase agreements" in the notes on accounting policies).

19 Off-balance-sheet items

The forward claims and liabilities outstanding as at 31 December 2000 in respect of foreign exchange swap contracts were liquidated during 2001.

No contingent liabilities were outstanding as at 31 December 2001.

⁶ ECB Decision of 6 December 2001 on the allocation of monetary income of the national central banks of participating member states from the financial year 2002 (ECB/2001/116), OJ L 337, 20.12.2001, pp. 55-61.

Notes on the Profit and Loss Account

1 Net interest income

This item includes interest income, net of interest expense, in respect of the assets and liabilities denominated in foreign currency, and net interest income on balances arising from TARGET and in respect of other assets and liabilities denominated in euro. The remuneration paid to participating NCBs on their claims on the ECB in respect of the foreign reserve assets transferred under Article 30.1 of the Statute of the ESCB is disclosed separately.

Interest income on foreign reserve assets is disclosed net of interest expense on foreign reserve liabilities as follows:

| | 2001 € | 2000 € |
|---|---------------|---------------|
| Gross interest income on foreign reserve assets | 1,851,694,324 | 2,734,740,519 |
| Interest expense on foreign reserve liabilities | (144,262,865) | (227,575,627) |
| Interest income on foreign reserve assets (net) | 1,707,431,459 | 2,507,164,892 |

The decrease in net interest income compared with 2000 is primarily due to lower net interest income from assets denominated in US dollars. This decrease was partially offset by higher interest income earned from remuneration on larger average balances resulting from TARGET transactions in 2001 when compared with 2000.

The balances for "Other interest income" and "Other interest expense" decreased in 2001, due primarily to netting of bilateral TARGET balances which commenced with effect from 30 November 2000. All TARGET-related bilateral balances between the EU NCBs and the ECB are netted daily at close of business by novating them to the ECB, leaving each NCB with a single net bilateral position vis-à-vis the ECB only (see "Intra-ESCB balances" in the notes on accounting policies).

2 Realised gains/losses arising from financial operations

Net realised gains arose mainly on sales of securities as a result of normal portfolio management transactions. The decrease in net realised gains compared with 2000 is primarily due to the fact that, in 2000, substantial realised gains arose due to the intervention activity of the ECB in the foreign exchange markets. The disposal of foreign currency income earned since the beginning of 1999 was also included in this item. In 2001 no foreign currency intervention activity took place, and disposals of earnings denominated in foreign exchange were suspended.

3 Write-downs on financial assets and positions

This expense is due almost entirely to the write-down of the acquisition cost of individual securities shown in the balance sheet to their market value as at 31 December 2001 due to falls in their prices in the latter part of 2001 (see "Income recognition" in the notes on accounting policies).

4 Net income from fees and commissions

This item consists of the following income and expenses. Income arose from penalties imposed on credit institutions for non-compliance with the minimum reserve requirements.

| | 2001 € | 2000 € |
|---|-----------|-----------|
| Income from fees and commissions | 931,206 | 1,296,112 |
| Expenses relating to fees and commissions | (633,086) | (622,614) |
| Net income from fees and commissions | 298,120 | 673,498 |

5 Other income

Other miscellaneous income during the year arose principally from the transfer of unused administrative provisions to the Profit and Loss Account.

6 Staff costs

Salaries and allowances of €82 million (2000: €67 million) and employer's contributions to the ECB's pension fund and to health and accident insurance are included under this heading. The emoluments of the Executive Board of the ECB amounted to a total of €1.9 million (2000: €1.8 million). No pensions were paid to former members of the Executive Board or their dependants during the year. Salaries and allowances of staff, including the emoluments of holders of senior management positions, are modelled in essence on, and are comparable with, the remuneration scheme of the European Communities.

At the end of 2001, the ECB employed 1,043 staff, of whom 75 held managerial positions. The average number of staff employed by the ECB in 2001 was 997 compared with 823 in 2000. 176 additional staff were employed during the period, and 74 members of staff left the service of the ECB.

7 The ECB's retirement plan

In accordance with the rules of the ECB plan, a triennial full actuarial valuation is required.

The latest actuarial valuation was carried out as at 31 December 2000, using the Projected Unit Credit Method, subject to minimum liabilities equal to cash lump sums that would be payable to members on termination of service.

The pension cost relating to the plan is assessed in accordance with the advice of a qualified actuary. The total pension cost to the ECB including a provision for disability and post-retirement benefits was €14.9 million (2000: €13.1 million). This includes a provision for pensions to members of the Executive Board of €0.7 million (2000: €0.6 million). The required future service contribution rate by the ECB is 16.5% of pensionable earnings of all staff.

8 Administrative expenses

These cover all other current expenses relating to rental of premises, maintenance of premises, goods and equipment of a non-capital nature, professional fees and other services and supplies, together with staff-related expenses including recruitment, relocation, installation, training and resettlement.

The increase in administrative expenditure is primarily due to additional operational costs associated with the ECB's second site, the Eurotheum, and higher consultancy fees, the latter mainly in connection with the preparation of the Euro 2002 Information Campaign.

President and Governing Council
of the European Central Bank

Frankfurt am Main

We have audited the accompanying financial statements of the European Central Bank as at 31 December 2001. The European Central Bank's Executive Board is responsible for the preparation of the accounts. It is our responsibility to form an independent opinion on these accounts based on our audit, and to report our opinion to you.

We conducted our audit in accordance with International Standards of Auditing. An audit includes examinations, on a test basis, of evidence relevant to the amounts and disclosures in the accounts. It also includes an assessment of the significant estimates and judgements made in the preparation of the accounts, and of whether the accounting policies are appropriate to the European Central Bank's circumstances and adequately disclosed.

In our opinion, the financial statements, which have been prepared under accounting policies set out in the first part of the notes on the accounts of the European Central Bank, give a true and fair view of the financial position of the European Central Bank at 31 December 2001 and the results of its operations for the year then ended.

Frankfurt am Main, 13 March 2002

PricewaterhouseCoopers

GmbH
Wirtschaftsprüfungsgesellschaft

[signed]
(Wagener)
Wirtschaftsprüfer

[signed]
(Kern)
Wirtschaftsprüfer

Note on profit distribution

This note does not form a part of the financial statements of the ECB for the year 2001. It is published in the Annual Report for information purposes.

Profit distribution

Article 33 of the Statute of the ESCB states that the net profit of the ECB shall be transferred in the following order:

- An amount to be determined by the Governing Council, which may not exceed 20% of the net profit, shall be transferred to the general reserve fund subject to a limit equal to 100% of the capital;
- The remaining net profit shall be distributed to the shareholders of the ECB in proportion to their paid-up shares.

In accordance with this Article, the Governing Council decided on 21 March 2002 to transfer an amount of €364 million to the general reserve fund with the remaining balance being distributable to the participating national central banks in proportion to their paid-up capital.

Non-participating national central banks are not entitled to receive any share of the distributable profits.

| | 2001 € | 2000 € |
|-------------------------------------|-----------------|-----------------|
| Profit for the year | 1,821,819,922 | 1,990,121,750 |
| Allocations to general reserve fund | (364,363,984) | (398,024,350) |
| Distributable profits | 1,457,455,938 | 1,592,097,400 |
| Distribution to NCBs | (1,457,455,938) | (1,592,097,400) |
| Total | 0 | 0 |

Consolidated Balance Sheet of the Eurosystem as at 31 December 2001

(EUR millions)

| Assets | 31 December 2001 | 1 January 2001 * | 31 December 2000 |
|---|---------------------|---------------------|---------------------|
| 1 Gold and gold receivables | 126,801 | 118,610 | 117,073 |
| 2 Claims on non-euro area residents denominated in foreign currency | | | |
| 2.1 Receivables from the IMF | 32,008 | 27,106 | 26,738 |
| 2.2 Balances with banks and security investments, external loans and other external assets | 232,957 | 243,545 | 232,087 |
| | 264,965 | 270,651 | 258,825 |
| 3 Claims on euro area residents denominated in foreign currency | 24,805 | 19,100 | 15,786 |
| 4 Claims on non-euro area residents denominated in euro | | | |
| 4.1 Balances with banks, security investments and loans | 5,707 | 4,149 | 3,750 |
| 4.2 Claims arising from the credit facility under ERM II | 0 | 0 | 0 |
| | 5,707 | 4,149 | 3,750 |
| 5 Lending to euro area credit institutions related to monetary policy operations denominated in euro | | | |
| 5.1 Main refinancing operations | 142,000 | 222,988 | 222,988 |
| 5.2 Longer-term refinancing operations | 60,000 | 45,000 | 45,000 |
| 5.3 Fine-tuning reverse operations | 0 | 0 | 0 |
| 5.4 Structural reverse operations | 0 | 0 | 0 |
| 5.5 Marginal lending facility | 1,573 | 608 | 608 |
| 5.6 Credits related to margin calls | 24 | 53 | 53 |
| | 203,598 | 268,648 | 268,648 |
| 6 Other claims on euro area credit institutions denominated in euro | 487 | 2,286 | 578 |
| 7 Securities of euro area residents denominated in euro | 27,984 | 29,059 | 26,071 |
| 8 General government debt denominated in euro | 68,603 | 69,375 | 57,671 |
| 9 Other assets | 90,813 | 91,208 | 87,676 |
| Total assets | 813,762 | 873,086 | 836,078 |

Totals/sub-totals may not add up due to rounding.

* The consolidated balance sheet for 1 January 2001 shows, for the purpose of comparison, the effects of the entry of the Bank of Greece into the Eurosystem on that date. The changes arise mainly from the incorporation of the assets and liabilities of the Bank of Greece and the reclassification of claims and liabilities of the Eurosystem vis-à-vis Greek residents as claims and liabilities against euro area residents.

| Liabilities | 31 December 2001 | 1 January 2001 * | 31 December 2000 |
|---|-----------------------------|-----------------------------|-----------------------------|
| 1 Banknotes in circulation | 269,556 | 380,281 | 371,370 |
| 2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro | | | |
| 2.1 Current accounts (covering the minimum reserve system) | 147,580 | 126,599 | 124,402 |
| 2.2 Deposit facility | 488 | 240 | 240 |
| 2.3 Fixed-term deposits | 0 | 0 | 0 |
| 2.4 Fine-tuning reverse operations | 0 | 0 | 0 |
| 2.5 Deposits related to margin calls | 4 | 0 | 0 |
| | 148,072 | 126,839 | 124,642 |
| 3 Other liabilities to euro area credit institutions denominated in euro | 37,159 | 10,950 | 305 |
| 4 Debt certificates issued | 2,939 | 3,784 | 3,784 |
| 5 Liabilities to other euro area residents denominated in euro | | | |
| 5.1 General government | 44,970 | 53,894 | 53,353 |
| 5.2 Other liabilities | 6,307 | 6,020 | 3,694 |
| | 51,277 | 59,914 | 57,047 |
| 6 Liabilities to non-euro area residents denominated in euro | 9,446 | 11,412 | 10,824 |
| 7 Liabilities to euro area residents denominated in foreign currency | 2,525 | 6,143 | 806 |
| 8 Liabilities to non-euro area residents denominated in foreign currency | | | |
| 8.1 Deposits, balances and other liabilities | 20,227 | 14,193 | 12,414 |
| 8.2 Liabilities arising from the credit facility under ERM II | 0 | 0 | 0 |
| | 20,227 | 14,193 | 12,414 |
| 9 Counterpart of special drawing rights allocated by the IMF | 6,967 | 6,848 | 6,702 |
| 10 Other liabilities | 76,107 | 74,691 | 72,277 |
| 11 Revaluation accounts | 125,367 | 117,972 | 117,986 |
| 12 Capital and reserves | 64,118 | 60,059 | 57,921 |
| Total liabilities | 813,762 | 873,086 | 836,078 |

Annexes

Glossary

Accession countries: there are currently 13 countries in central and eastern Europe and in the Mediterranean which are recognised by the **European Council** as candidates for accession to the European Union (EU). At present, the following 12 countries have formally entered into accession negotiations: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia. Turkey is also an official candidate for accession, although negotiations have not yet started, and is included in the Economic Dialogue with the EU. When referring to accession countries, the Annual Report refers to those 12 countries with which negotiations for EU membership are ongoing.

Acquis communautaire: term commonly used to refer to all Community law including EU treaties, regulations and directives. Countries must have implemented the existing *acquis communautaire* by the time of accession.

Benchmark: in relation to investments, a benchmark is a reference portfolio or index constructed on the basis of the objectives for the liquidity and risk of as well as the return on the investments. The benchmark serves as a basis for comparison of the performance of the actual portfolio. In the context of the foreign reserve management of the **European Central Bank (ECB)**, the strategic benchmark is a reference portfolio reflecting the long-term risk/return preferences of the ECB. Its characteristics are amended only in exceptional circumstances. The tactical benchmark reflects the risk/return preferences of the ECB with a time horizon of a few months, based on prevailing market conditions. It is reviewed on a monthly basis.

Bilateral procedure: a procedure whereby the central bank deals directly with one or only a few **counterparties**, without making use of tender procedures. Bilateral procedures include operations executed through stock exchanges or market agents.

Central securities depository (CSD): an entity which holds and administers securities or other financial assets and enables securities transactions to be processed by book entry. Assets may exist either physically (but immobilised within the CSD) or in a dematerialised form (i.e. only as electronic records).

Collateral: assets pledged as a guarantee for the repayment of loans (e.g. which **credit institutions** receive from central banks), as well as assets sold (e.g. to central banks by credit institutions) as part of **repurchase agreements**.

Committee of European Securities Regulators (CESR): the Committee of European Securities Regulators, which was created in June 2001, is composed of representatives from the national authorities regulating the securities markets. It advises the **European Commission** on securities policy issues and plays an important role in the transposition of Community law in the Member States.

Consolidated MFI balance sheet: the consolidated balance sheet of the **Monetary Financial Institution (MFI)** sector is obtained by netting out inter-MFI positions (e.g. inter-MFI loans and deposits) on the aggregated MFI balance sheet. It provides information on the MFI sector's assets and liabilities vis-à-vis residents of the **euro area** not belonging to this sector (i.e. **general government** and other euro area residents) and vis-à-vis non-residents of the euro area. The consolidated balance sheet is the main statistical source for the calculation of **monetary aggregates** and it provides the basis for the regular analysis of the counterparts of **M3**.

Convergence programmes: see **stability programmes**.

Copenhagen criteria: the overall criteria which countries have to meet as a prerequisite for becoming members of the European Union (EU) were defined in general terms by the Copenhagen **European Council** in June 1993. The Copenhagen criteria require (i) the stability of institutions guaranteeing democracy, the rule of law, human rights, and the respect for and protection of minorities; (ii) the existence of a functioning market economy as well as the capacity to cope with competitive pressure and market forces within the EU; and (iii) the ability to take on the obligations of membership, including adherence to the aims of political unification as well as **Economic and Monetary Union**.

Correspondent banking: an arrangement whereby one **credit institution** provides payment and other services to another credit institution. Payments through correspondents are often executed through reciprocal accounts (nostro and loro accounts), to which standing credit lines may be attached. Correspondent banking services are primarily provided across international boundaries, but are also known as agency relationships in some domestic contexts. A loro account is the term used by a correspondent to describe an account held on behalf of a foreign credit institution; the foreign credit institution would in turn regard this account as its nostro account.

Correspondent central banking model (CCBM): a mechanism established by the **European System of Central Banks** with the aim of enabling **counterparties** to transfer eligible assets as **collateral** in a cross-border context. In the CCBM, national central banks (NCBs) act as custodians for one another. This means that each NCB has a securities account in its securities administration for each of the other NCBs (and for the **European Central Bank**).

Council of Ministers: see **EU Council**.

Counterparty: the opposite party in a financial transaction (e.g. any party transacting with a central bank).

Credit institution: an institution covered by the definition in Article 1 (1) of Directive 2000/12/EC of the European Parliament and of the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions, as amended by Directive 2000/28/EC of the European Parliament and of the Council of 18 September 2000. Thus, a credit institution is: (i) an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credit for its own account; or (ii) an undertaking or any other legal person, other than those under (i), which issues means of payment in the form of electronic money. "Electronic money" shall mean monetary value, as represented by a claim on the issuer, which is: (a) stored on an electronic device; (b) issued on receipt of funds of an amount not lower in value than the monetary value issued; and (c) accepted as a means of payment by undertakings other than the issuer.

Credit to euro area residents: a broad measure of the financing of non-**Monetary Financial Institution (MFI)** euro area residents (including **general government** and the private sector) provided by the MFI sector. It is defined as including loans and MFI holdings of securities. The latter include shares, other equity and debt securities issued by non-MFI euro area residents. As securities can be seen as an alternative source of funds to loans, and as some loans can be securitised, this definition provides more accurate information on the total amount of financing provided by the MFI sector to the economy than a narrow definition comprising loans only.

Currency in circulation: comprises banknotes and coins in circulation that are commonly used to make payments. It includes banknotes denominated in **euro** and in the legacy currencies issued by the **Eurosystem** and by other **Monetary Financial Institutions (MFIs)** in the **euro area** (in Ireland and Luxembourg) as well as the coins issued by some national central banks of the Eurosystem and by the central government. Throughout the whole of 2002, currency in circulation will include the legacy currencies of the euro, even though the euro will have been the sole legal tender in all euro area countries from 1 March 2002 onwards. This decision was taken on account of the fact that legacy currencies can easily be converted into euro at the irrevocably fixed conversion rates. Currency in circulation as included in **M3** is a net concept, i.e. it refers only to banknotes and coins in circulation that are held outside the MFI sector (as shown on the **consolidated MFI balance sheet**, i.e. currency issued but held by MFIs – “vault cash” – has been subtracted). Currency in circulation does not include a central bank’s stock of own banknotes (as they are not issued), nor commemorative coins that are not commonly used to make payments.

Debt ratio: the subject of one of the fiscal convergence criteria laid down in Article 104 (2) of the **Treaty**. It is defined as the ratio of government debt to gross domestic product at current market prices, while government debt is defined in Protocol No. 20 (on the excessive deficit procedure) as the total gross debt at nominal value outstanding at the end of the year and consolidated between and within the sectors of **general government**. General government is as defined in the **European System of Accounts 1995**.

Deficit-debt adjustment: the difference between the government deficit and the change in government debt. Among other reasons, this may arise as a result of changes in the amount of financial assets held by the government, a change in government debt held by other government sub-sectors or statistical adjustments.

Deficit ratio: the subject of one of the fiscal convergence criteria laid down in Article 104 (2) of the **Treaty**. It is defined as the ratio of the planned or actual government deficit to gross domestic product at current market prices, while the government deficit is defined in Protocol No. 20 (on the excessive deficit procedure) as net borrowing of the **general government**. General government is as defined in the **European System of Accounts 1995**.

Delivery versus payment (DVP) or delivery against payment system: a mechanism in a **securities settlement system** which ensures that the final transfer of assets (securities or other financial instruments) occurs if, and only if, the final transfer of another asset or other assets occurs.

Deposit facility: a **standing facility** of the **Eurosystem** which **counterparties** may use to make **overnight deposits** at a national central bank and which are remunerated at a pre-specified interest rate (see **key ECB interest rates**).

Deposits redeemable at notice: savings deposits for which the holder must respect a fixed period of notice before withdrawing the funds. In some cases there is the possibility of withdrawing a certain fixed amount in a specified period or of earlier withdrawal subject to the payment of a penalty. Deposits redeemable at a period of notice of up to three months are included in **M2** (and hence in **M3**), while those with a longer period of notice are part of the (non-monetary) longer-term financial liabilities of the **Monetary Financial Institution (MFI)** sector.

Deposits with agreed maturity: mainly time deposits with a given maturity that, depending on national practices, may be either not convertible prior to maturity or convertible only subject to a penalty. Some non-marketable debt instruments, such as non-marketable (retail) certificates of deposit, are also included. Deposits with an agreed maturity of up to two years are included in **M2** (and hence in **M3**), while those with an agreed maturity of over two years are included in the (non-monetary) longer-term financial liabilities of the **Monetary Financial Institution (MFI)** sector.

ECOFIN: see **EU Council**.

Economic and Financial Committee: a consultative Community body set up at the start of Stage Three of **Economic and Monetary Union**, when the Monetary Committee was dissolved. The Member States, the **European Commission** and the **European Central Bank (ECB)** each appoint no more than two members of the Committee. One of the two members appointed by each of the Member States is selected from among senior officials from the respective national administration and the other from among senior officials from the respective national central bank. Article 114 (2) of the **Treaty** contains a list of the tasks of the Economic and Financial Committee, which include reviewing the economic and financial situation of the Member States and of the Community.

Economic and Monetary Union (EMU): the **Treaty** describes the process of achieving EMU in the European Union (EU) in three stages. Stage One of EMU started in July 1990 and ended on 31 December 1993; it was mainly characterised by the dismantling of all internal barriers to the free movement of capital within the EU. Stage Two of EMU began on 1 January 1994. It provided for, inter alia, the establishment of the **European Monetary Institute**, the prohibition of financing of the public sector by the central banks, the prohibition of privileged access to financial institutions by the public sector and the avoidance of excessive government deficits. Stage Three started on 1 January 1999 with the transfer of monetary competence to the **European Central Bank** and the introduction of the **euro**. The cash changeover on 1 January 2002 completed the set-up of EMU.

ECU (European Currency Unit): the ECU was a basket currency made up of the sum of fixed amounts of 12 of the 15 currencies of the EU Member States. The value of the ECU was calculated as a weighted average of the value of its component currencies. The ECU was replaced by the **euro** on a one-for-one basis on 1 January 1999.

Effective (nominal/real) exchange rates (EERs): nominal EERs consist of a geometric weighted average of various bilateral exchange rates. Real EERs are nominal EERs deflated by a weighted average of foreign, relative to domestic, prices or costs. They are thus measures of price and cost competitiveness. The **European Central Bank** calculates nominal EER indices for the **euro** against the currencies of a narrow and a broad group of trading partners of the **euro area**. As from January 2001, the narrow group consists of 12 industrial and newly industrialised partner countries, while the broad group is made up of 38 trading partners including emerging market economies and economies in transition. The real EER indices for the euro are calculated using alternative measures of prices and costs.

Electronic money (e-money): an electronic store of monetary value on a technical device that may be widely used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument (see also **multi-purpose prepaid card**).

EMU: see **Economic and Monetary Union**.

EONIA (euro overnight index average): a measure of the effective interest rate prevailing in the **euro** interbank overnight market. It is calculated as a weighted average of the interest rates on unsecured overnight lending transactions denominated in euro, as reported by a panel of contributing banks.

ERM II (exchange rate mechanism II): the exchange rate arrangement which provides the framework for exchange rate policy co-operation between the **euro area** and EU Member States not participating in the euro area from the start of Stage Three of **Economic and Monetary Union**. Membership of the mechanism is voluntary. Nevertheless, Member States with a derogation are expected to join the mechanism. Currently, the Danish krone participates in ERM II with a fluctuation band around the central rate against the **euro** of $\pm 2.25\%$. Foreign exchange intervention and financing at the margins of the standard or narrower fluctuation bands are, in principle, automatic and unlimited, with very short-term financing available. The **European Central Bank** and the participating non-euro area national central banks could, however, suspend automatic intervention if this were to conflict with their primary objective of maintaining **price stability**.

EU Council: an institution of the European Community. It is made up of representatives of the governments of the Member States, normally the ministers responsible for the matters under consideration (therefore often referred to as the Council of Ministers). The EU Council meeting in the composition of the ministers of finance and economy is often referred to as the **ECOFIN** Council. In addition, the EU Council may meet in the composition of the Heads of State or Government (see also **European Council**).

EURIBOR (euro interbank offered rate): the rate at which a prime bank is willing to lend funds in **euro** to another prime bank. The EURIBOR is computed daily for interbank deposits with a maturity of one to three weeks and one to 12 months as the average of the daily offer rates of a representative panel of prime banks, rounded to three decimal places.

Euro: the name of the European currency adopted by the **European Council** at its meeting in Madrid on 15 and 16 December 1995 and used instead of the term **ECU** employed in the **Treaty**.

Euro area: the area encompassing those Member States in which the **euro** has been adopted as the single currency in accordance with the **Treaty** and in which a single monetary policy is conducted under the responsibility of the **Governing Council** of the **European Central Bank**. The euro area currently comprises Belgium, Germany, Greece (which joined on 1 January 2001), Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland.

Euro Banking Association (EBA): an organisation which provides a forum for exploring and debating all issues of interest to its members and, in particular, matters pertaining to the use of the **euro** and the settlement of transactions in euro. The EBA established a clearing company (ABE Clearing, Société par Actions Simplifiée à capital variable) for the purpose of managing the Euro Clearing System as from 1 January 1999. The Euro Clearing System (Euro I) is the successor to the ECU Clearing and Settlement System.

Euro central rate: the official exchange rate of **ERM II** member currencies vis-à-vis the **euro**, around which the ERM II fluctuation margins are defined.

Eurogroup: informal grouping bringing together those members of the **ECOFIN** Council who represent the Member States of the **euro area**. It meets on a regular basis (usually prior to meetings of the ECOFIN Council) to discuss issues connected with the euro area Member States' shared responsibilities for the single currency. The **European Commission** and, when appropriate, the **European Central Bank** are invited to take part in these meetings.

European Central Bank (ECB): the ECB lies at the centre of the **European System of Central Banks (ESCB)** and the **Eurosystem** and has legal personality under Community law. It ensures that the tasks conferred upon the Eurosystem and the ESCB are implemented either by its own activities or through the national central banks, pursuant to the Statute of the European System of Central Banks and of the European Central Bank. The ECB is governed by the **Governing Council** and the **Executive Board**, and, as a third decision-making body, by the **General Council**.

European Commission (Commission of the European Communities): the institution of the European Community which ensures the application of the provisions of the **Treaty**. The Commission develops Community policies, proposes Community legislation and exercises powers in specific areas. In the area of economic policy, the Commission recommends broad guidelines for economic policies in the Community and reports to the **EU Council** on economic developments and policies. It monitors public finances within the framework of multilateral surveillance and submits reports to the Council. It consists of 20 members and includes two nationals each from Germany, Spain, France, Italy and the United Kingdom, and one from each of the other Member States.

European Council: provides the European Union with the necessary impetus for its development and defines the general political guidelines thereof. It brings together the Heads of State or Government of the Member States and the President of the **European Commission** (see also **EU Council**).

European Monetary Institute (EMI): a temporary institution established at the start of Stage Two of **Economic and Monetary Union** on 1 January 1994. The two main tasks of the EMI were to strengthen central bank co-operation and monetary policy co-ordination and to make the preparations required for the establishment of the **European System of Central Banks**, for the conduct of the single monetary policy and for the creation of a single currency in Stage Three. It went into liquidation following the establishment of the **European Central Bank** on 1 June 1998.

European Parliament: consists of 626 representatives of the citizens of the Member States. It is a part of the legislative process, although with different prerogatives according to the procedures through which EU law is to be enacted. In the framework of **Economic and Monetary Union**, the Parliament has mainly consultative powers. However, the **Treaty** establishes certain procedures for the democratic accountability of the **European Central Bank** to the Parliament (presentation of the annual report, general debate on the monetary policy, testimonies before the competent parliamentary committees).

European System of Accounts 1995 (ESA 95): a system of uniform statistical definitions and classifications aimed at achieving a harmonised quantitative description of the economies of the Member States. The ESA 95 is the Community's version of the world System of National Accounts 1993 (SNA 93). The ESA 95 is a new version of the European system, implementation of which began in the course of 1999 in accordance with Council Regulation (EC) No. 2223/96.

European System of Central Banks (ESCB): is composed of the **European Central Bank (ECB)** and the national central banks of all 15 Member States, i.e. it includes, in addition to the members of the **Eurosystem**, the national central banks of the Member States which have not yet adopted the **euro**. The ESCB is governed by the **Governing Council** and the **Executive Board** of the ECB, and, as a third decision-making body of the ECB, by the **General Council**.

Eurostat: the Statistical Office of the European Communities. Eurostat is part of the **European Commission** and is responsible for the production of Community statistics.

EURO STOXX: STOXX Limited (www.stoxx.com) publishes the Dow Jones STOXX indices which measure stock price developments in Europe as a whole. The Dow Jones EURO STOXX index is one member of this index family. This index aggregates the prices of a broad range of stocks from those countries belonging to the **euro area**. Furthermore, three types of sector index (economic and market sectors as well as industry groups) are available for the Dow Jones EURO STOXX index.

Eurosystem: comprises the **European Central Bank (ECB)** and the national central banks (NCBs) of the Member States which have adopted the **euro** in Stage Three of **Economic and Monetary Union** (see also **euro area**). There are currently 12 NCBs in the Eurosystem. The Eurosystem is governed by the **Governing Council** and the **Executive Board** of the ECB.

Eurosystem's foreign exchange liquidity position: this comprises the **Eurosystem's international reserves** and the **Eurosystem's** other foreign currency claims and liabilities, including positions vis-à-vis **euro area** residents such as foreign exchange deposits placed with banking institutions resident in the euro area.

Eurosystem's international reserves: the reserve assets of the **euro area** consist of the **Eurosystem's** reserve assets, i.e. the reserve assets of the **European Central Bank (ECB)** and the reserve assets held by the national central banks (NCBs) of the participating Member States. Reserve assets must be under the effective control of the relevant monetary authority, whether the ECB or the NCB of one of the participating Member States, and refer to highly liquid, marketable and creditworthy foreign (non-**euro**) currency-denominated claims on non-residents of the euro area, plus gold, special drawing rights and the reserve positions in the International Monetary Fund of the participating NCBs.

Executive Board: one of the decision-making bodies of the **European Central Bank (ECB)**. It comprises the President and the Vice-President of the ECB and four other members appointed by common accord by the Heads of State or Government of the Member States which have adopted the **euro**.

Fair Value Accounting (FVA): a valuation principle that stipulates the use of either a market price, where it exists, or an estimation of a market price as the present value of expected cash flows, to set the balance sheet value of financial instruments.

Fine-tuning operation: a non-regular **open market operation** executed by the **Eurosystem** mainly in order to deal with unexpected liquidity fluctuations in the market.

Foreign exchange swap: simultaneous spot and forward transactions exchanging one currency against another. The **Eurosystem** can execute open market operations in the form

of foreign exchange swaps, where the national central banks (or the **European Central Bank**) buy or sell **euro** spot against a foreign currency and at the same time sell or buy them back in a forward transaction.

Frontloading: the distribution of **euro** banknotes and/or coins to **credit institutions** prior to 2002.

Funds transfer system (FTS): a formal arrangement, based on private contract or statute law, with multiple membership, common rules and standardised arrangements, for the transmission and settlement of money obligations arising between the members.

General Council: one of the decision-making bodies of the **European Central Bank (ECB)**. It comprises the President and the Vice-President of the ECB and the governors of all 15 EU national central banks.

General government: as defined in the **European System of Accounts 1995**, consists of central, state and local government and social security funds.

Governing Council: the supreme decision-making body of the **European Central Bank (ECB)**. It comprises all the members of the **Executive Board** of the ECB and the governors of the national central banks of the Member States which have adopted the **euro**.

Harmonised Index of Consumer Prices (HICP): the measure of prices used by the **Governing Council** for the purpose of assessing **price stability**. The HICP was developed by the **European Commission (Eurostat)** in close liaison with the national statistical institutes and the **European Monetary Institute**, and later the **European Central Bank**, in order to fulfil the **Treaty** requirement for a consumer price index constructed on a comparable basis, taking into account differences in national definitions.

Implied interest rate volatility: a measure of expected volatility in future short and long-term interest rates, which can be extracted from option prices. Given the observed market price of an option, the implied volatility can be extracted using a standard option pricing formula which explicitly depends on, inter alia, the expected volatility of the underlying asset price during the period until the option expires. The underlying assets can be futures contracts on short-term interest rates, such as the three-month **EURIBOR**, or on long-term bonds such as ten-year German Bunds. Given appropriate assumptions, the implied volatility may be interpreted as the market's expectation of volatility during the remaining life of the option.

Interbank funds transfer system (IFTS): a **funds transfer system** in which most (or all) direct participants are **credit institutions**.

Interlinking mechanism: one of the components of the **TARGET** system. The term is used to designate the infrastructures and procedures which link domestic **RTGS systems** in order to process cross-border payments within TARGET.

International investment position (i.i.p.) (or external asset or liability position): the value and composition of the stock of an economy's financial claims on and financial liabilities to the rest of the world. At present, the euro area i.i.p. is compiled on a net basis, from aggregated national data.

Key ECB interest rates: the interest rates which reflect the stance of the monetary policy of the **European Central Bank (ECB)** and which are set by the **Governing Council**. The key ECB interest rates are at present the **minimum bid rate** on the **main refinancing operations**, the interest rate on the **marginal lending facility** and the interest rate on the **deposit facility**.

Large-value payments: payments, generally of very large amounts, which are mainly exchanged between banks or between participants in the financial markets and usually require urgent and timely settlement.

Link between securities settlement systems: the procedures and arrangements between two **securities settlement systems** for the cross-border transfer of securities through a book-entry process.

Longer-term refinancing operation: a regular **open market operation** executed by the **Eurosystem** in the form of a **reverse transaction**. Longer-term refinancing operations are carried out through monthly **standard tenders** and have a maturity of three months.

Loss-sharing rule (or agreement): an agreement between participants in a transfer system or a clearing house arrangement regarding the allocation of any loss arising when one or more participants fail to fulfil their obligations; the agreement stipulates how the loss will be shared among the parties concerned in the event of its being activated.

Lump-sum allowance: a fixed amount which an institution deducts in the calculation of its **reserve requirement** within the minimum reserve framework of the **Eurosystem**.

M1, M2, M3: see **monetary aggregates**.

Main refinancing operation: a regular **open market operation** executed by the **Eurosystem** in the form of a **reverse transaction**. Main refinancing operations are conducted through weekly **standard tenders** and normally have a maturity of two weeks.

Maintenance period: the period over which **credit institutions'** compliance with **reserve requirements** is calculated. The maintenance period for **Eurosystem** minimum reserves is one month, starting on the 24th calendar day of one month and ending on the 23rd calendar day of the following month.

Marginal lending facility: a **standing facility** of the **Eurosystem** which **counterparties** may use to receive overnight credit from a national central bank at a pre-specified interest rate against eligible assets (see **key ECB interest rates**).

Minimum bid rate: the lower limit to the interest rates at which **counterparties** may submit bids in the variable rate tenders on the main refinancing operations. As a **key ECB interest rate** it plays, at present, the role previously covered by the rate in fixed rate tenders (see **key ECB interest rates**).

Monetary aggregates: currency in circulation plus outstanding amounts of certain liabilities of **Monetary Financial Institutions** and central government (Post Office, Treasury) that have a high degree of “moneyness” (or liquidity in a broad sense). The narrow monetary aggregate **M1** has been defined as currency in circulation plus **overnight deposits**. The “intermediate” monetary aggregate **M2** comprises M1 plus **deposits with agreed maturity**

of up to two years and **deposits redeemable at notice** of up to three months. The broad monetary aggregate **M3** includes M2 plus **repurchase agreements**, money market fund shares/units, money market paper and debt securities with a maturity of up to two years. The **Governing Council** has announced a reference value for the growth of M3 (see also **reference value for monetary growth**).

Monetary Financial Institutions (MFIs): financial institutions which form the money-creating sector of the **euro area**. These include central banks, resident **credit institutions** as defined in Community law and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credit and/or invest in securities. The latter group consists predominantly of money market funds. At the end of 2001, there were 8,868 MFIs in the euro area (the **European Central Bank**, 12 national central banks, 7,218 credit institutions, 1,631 money market funds and six other financial institutions).

Monetary policy strategy: the monetary policy strategy of the **European Central Bank (ECB)** rests on the quantitative definition of **price stability** and two analytical frameworks (“pillars”) which contribute to assessing the risks to future price stability. The first pillar assigns a prominent role to money – monetary and credit developments are thoroughly analysed for their information content. It includes a reference value for monetary growth and a number of models in which monetary and credit developments play a role in determining or projecting price developments. The second pillar consists of the analysis of a wide range of other economic and financial variables. It includes various models in which cost pressures and the relationship between supply and demand in goods, service and labour markets determine price developments.

Money market: the market in which short-term funds are raised, invested and traded using instruments which generally have an original maturity of up to one year.

Multi-purpose prepaid card: a stored value card which can be used for a wide range of payment purposes and which has the potential to be used on a national or international scale, but which may sometimes be restricted to a certain area. A reloadable multi-purpose prepaid card is also known as an electronic purse (see also **electronic money**).

Net settlement system (NSS): a **funds transfer system**, the settlement operations of which are completed on a bilateral or multilateral net basis.

Open market operation: an operation executed on the initiative of the central bank in the financial markets involving one of the following transactions: (i) buying or selling assets outright (spot or forward); (ii) buying or selling assets under a **repurchase agreement**; (iii) lending or borrowing against underlying assets as **collateral**; (iv) issuing central bank debt certificates; (v) accepting fixed-term deposits; or (vi) conducting **foreign exchange swaps** between domestic and foreign currencies.

Option: an option is a financial instrument which gives the owner the right, but not the obligation, to buy or sell a specific underlying asset (e.g. a bond or a stock) at a predetermined price (the strike or exercise price) at or up to a certain future date (the exercise or maturity date). A call option gives the holder the right to purchase the underlying asset at an agreed exercise price, whereas a put option gives the holder the right to sell it at an agreed exercise price.

Outright transaction: a transaction whereby assets are bought or sold up to their maturity (spot or forward).

Overnight deposits: deposits with next-day maturity. This instrument category comprises mainly those sight/demand deposits which are fully transferable (by cheque or similar instrument). It also includes non-transferable deposits that are convertible on demand or by close of business the following day.

Payment versus payment (PVP): a mechanism in a foreign exchange settlement system which ensures that a final transfer of one currency occurs if, and only if, a final transfer of the other currency or currencies takes place.

Price stability: the maintenance of price stability is the primary objective of the **European Central Bank**. The **Governing Council** has published a quantitative definition of price stability in order to give clear guidance to expectations of future price developments and to be accountable. The Governing Council defines price stability as a year-on-year increase in the **Harmonised Index of Consumer Prices (HICP)** for the **euro area** of below 2%. The **Governing Council** announced that price stability according to this definition is to be maintained over the medium term. The definition delineates an upper boundary for the rate of measured inflation; at the same time, the use of the word “increase” signals that deflation, i.e. prolonged declines in the level of the HICP, would not be deemed consistent with price stability.

Primary balance: government net borrowing or net lending excluding interest payments on consolidated government liabilities.

Projections: the results of exercises conducted by **Eurosystem** staff to project possible future macroeconomic developments in the **euro area**. Euro area projections are obtained in a way consistent with individual country projections. The projections, which are published twice a year, form part of the second pillar of the **monetary policy strategy** of the **European Central Bank** and are one of several inputs into the **Governing Council**'s assessment of the risks to **price stability**.

Quick tender: the tender procedure used by the **Eurosystem** for **fine-tuning operations**. Quick tenders are executed within a time frame of one hour and are restricted to a limited set of **counterparties**.

Realignment: a change in the central parity of a currency participating in an exchange rate system with a fixed but adjustable peg. In **ERM II** a realignment consists of a change in the **euro central rate**.

Re-denomination of securities: the denomination of a security is the currency in which the par value of the security is expressed (in most cases, the face value of a certificate). Re-denomination refers to a procedure through which the original denomination of a security, issued in a national currency, is changed into **euro** at the irrevocably fixed conversion rate.

Reference value for monetary growth: the **Governing Council** assigns money a prominent role in the conduct of the monetary policy, implying that **monetary aggregates** and their counterparts are thoroughly analysed regarding their information content for future price developments. This is signalled by the announcement of a reference value for the growth rate of the monetary aggregate **M3**. The reference value is derived in a manner which

is consistent with and serves the achievement of the **Governing Council's** definition of **price stability** on the basis of medium-term assumptions regarding trend real GDP growth and the trend in the velocity of circulation of M3. Substantial or prolonged deviations of M3 growth from the reference value would, under normal circumstances, signal risks to price stability over the medium term. However, the concept of the reference value does not entail a commitment on the part of the Governing Council to correct mechanically deviations of M3 growth from the reference value.

Reference value for the fiscal position: Treaty Protocol No. 20 on the excessive deficit procedure sets explicit reference values for the **general government deficit ratio** (3% of GDP) and the **debt ratio** (60% of GDP) (see also **Stability and Growth Pact**).

Remote access (to an IFTS): the facility enabling a **credit institution** established in one country ("home country") to become a direct participant in an **interbank funds transfer system (IFTS)** established in another country ("host country") and, for that purpose, to have a settlement account in its own name with the central bank in the host country without necessarily having established a branch in that country.

Repurchase agreement: an arrangement whereby an asset is sold but the seller has a right and an obligation to repurchase it at a specific price on a future date or on demand. Such an agreement is similar to collateralised borrowing, but differs in that ownership of the securities is not retained by the seller. The **Eurosystem** uses repurchase agreements with a fixed maturity in its **reverse transactions**. Repurchase transactions are included in **M3** in cases where the seller is a **Monetary Financial Institution (MFI)** and the **counterparty** is a non-MFI resident in the **euro area**. According to the Regulation of the ECB concerning the consolidated balance sheet of the monetary financial institutions sector (ECB/2001/13, replacing ECB/1998/16), **repurchase operations (repos)** are classified as deposit liabilities since they are not marketable.

Repurchase operation (repo): a liquidity-providing **reverse transaction** based on a **repurchase agreement**.

Reserve base: the sum of the balance sheet items (in particular liabilities) which constitute the basis for calculating the **reserve requirement** of a **credit institution**.

Reserve ratio: a ratio defined by the central bank for each category of balance sheet items included in the **reserve base**. The ratios are used to calculate **reserve requirements**.

Reserve requirement: the requirement for **credit institutions** to hold minimum reserves with the central bank. In the minimum reserve framework of the **Eurosystem**, the reserve requirement of a credit institution is calculated by multiplying the **reserve ratio** for each category of items within the **reserve base** by the amount of those items on the institution's balance sheet. In addition, institutions are allowed to deduct a **lump-sum allowance** from their reserve requirement.

Reverse transaction: an operation whereby the central bank buys or sells assets under a **repurchase agreement** or conducts credit operations against **collateral**.

RTGS (real-time gross settlement) system: a settlement system in which processing and settlement take place on an order-by-order basis (without netting) in real time (continuously). See also **TARGET**.

Securities settlement system (SSS): a system which permits the holding and transfer of securities or other financial assets, either free of payment (FOP) or against payment (**delivery versus payment**).

Settlement agent: an institution that manages the settlement process (e.g. the determination of settlement positions, monitoring of exchange of payments, etc.) for transfer systems or other arrangements that require settlement.

Settlement risk: a general term used to designate the risk that settlement in a transfer system will not take place as expected. This risk may comprise both credit and liquidity risk.

Stability and Growth Pact: consists of two **EU Council** Regulations on (i) the strengthening of the surveillance of budgetary positions and the surveillance and co-ordination of economic policies and on (ii) speeding up and clarifying the implementation of the excessive deficit procedure, and of a **European Council** Resolution on the Stability and Growth Pact adopted at the Amsterdam summit on 17 June 1997. It is intended to serve as a means of safeguarding sound government finances in Stage Three of **Economic and Monetary Union (EMU)** in order to strengthen the conditions for **price stability** and for strong, sustainable growth conducive to employment creation. More specifically, budgetary positions close to balance or in surplus are required as the medium-term objective for Member States, which would allow them to deal with normal cyclical fluctuations while keeping the government deficit below the **reference value** of 3% of GDP. In accordance with the Stability and Growth Pact, countries participating in EMU will report **stability programmes**, while non-participating countries will continue to provide convergence programmes.

Stability programmes: medium-term government plans and assumptions provided by **euro area** Member States regarding the development of key economic variables towards the achievement of the medium-term objective of a budgetary position close to balance or in surplus as referred to in the **Stability and Growth Pact**. Measures to consolidate fiscal balances as well as underlying economic scenarios are highlighted. Stability programmes must be updated annually. They are examined by the **European Commission** and the **Economic and Financial Committee**, whose reports serve as the basis for an assessment by the **ECOFIN** Council, focusing, in particular, on whether the medium-term budgetary objective in the programme provides for an adequate safety margin to ensure the avoidance of an excessive deficit. Countries not participating in the euro area must submit annual convergence programmes, in accordance with the Stability and Growth Pact.

Standard tender: a tender procedure used by the **Eurosystem** in its regular **open market operations**. Standard tenders are carried out within 24 hours. All **counterparties** fulfilling the general eligibility criteria are entitled to submit bids.

Standing facility: a central bank facility available to **counterparties** on their own initiative. The **Eurosystem** offers two overnight standing facilities: the **marginal lending facility** and the **deposit facility**.

Structural operation: an **open market operation** executed by the **Eurosystem** mainly in order to adjust the structural liquidity position of the financial sector vis-à-vis the Eurosystem.

Sub-frontloading: the distribution of **euro** banknotes and/or coins by **credit institutions** to certain target groups (e.g. retailers, cash-in-transit companies, the cash-operated machine industry and the general public) prior to 2002.

TARGET (Trans-European Automated Real-time Gross settlement Express Transfer system): the **real-time gross settlement (RTGS) system** for the **euro**. It is a decentralised system consisting of 15 national RTGS systems and the **ECB** payment mechanism. These are interconnected by common procedures (**Interlinking mechanism**) to allow cross-border transfers throughout the EU to move from one system to another.

Tier one asset: a marketable asset fulfilling certain uniform **euro area**-wide eligibility criteria specified by the **ECB**.

Tier two asset: a marketable or non-marketable asset fulfilling specific eligibility criteria established by a national central bank, subject to ECB approval.

Treaty: refers to the Treaty establishing the European Community. The Treaty was signed in Rome on 25 March 1957 and entered into force on 1 January 1958. It established the European Economic Community (EEC), which is now the European Community (EC), and is often referred to as the “Treaty of Rome”. The Treaty on European Union (which is often referred to as the “Maastricht Treaty”) was signed on 7 February 1992 and entered into force on 1 November 1993. The Treaty on European Union amended the Treaty establishing the European Community and established the European Union. The “Treaty of Amsterdam”, which was signed in Amsterdam on 2 October 1997 and entered into force on 1 May 1999, amended both the Treaty establishing the European Community and the Treaty on European Union. Equally, the “Treaty of Nice”, which concluded the 2000 Intergovernmental Conference and was signed on 26 February 2001, will further amend the Treaty establishing the European Community and the Treaty on European Union, once it is ratified and enters into force.

UMTS (Universal Mobile Telecommunications System): system for “third generation” mobile telecommunication. Licences for mobile telecommunication frequencies are sold or awarded by EU governments to telecommunications companies.

Valuation haircut: a risk control measure applied to underlying assets used in **reverse transactions**, in which the central bank calculates the value of underlying assets as their market value reduced by a certain percentage (haircut). The **Eurosystem** applies valuation haircuts reflecting features of the specific assets, such as their residual maturity.

Variation margin (or marking to market): the **Eurosystem** requires that a specified margin be maintained over time on the underlying assets used in **reverse transactions**. This implies that if the regularly measured market value of the underlying assets falls below a certain level, **counterparties** have to supply additional assets (or cash). Similarly, if the market value of the underlying assets, following their revaluation, were to exceed the amount owed by a counterparty plus the variation margin, the central bank would return excess assets (or cash) to the counterparty.

Monetary policy chronology

2 January 2001

On 1 January 2001 the euro is introduced in Greece. Greece thus becomes the twelfth EU Member State to adopt the single currency and the first to do so since the start of Stage Three of Economic and Monetary Union (EMU) on 1 January 1999. As a result, the Bank of Greece becomes a full member of the Eurosystem, with the same rights and obligations as the 11 national central banks of the EU Member States which previously adopted the euro. In accordance with Article 49 of the Statute of the European System of Central Banks and of the European Central Bank, the Bank of Greece pays up the remainder of its contribution to the capital of the ECB, as well as its share of the ECB's reserves, and also transfers to the ECB its contribution to the foreign reserve assets of the ECB.

4 January 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively. In addition, it decides on an allotment amount of €20 billion per operation for the longer-term refinancing operations to be conducted in 2001. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2001 and the desire of the Eurosystem to continue to provide the bulk of refinancing to the financial sector through its main refinancing operations.

18 January, 1 February, 15 February, 1 March, 15 March, 29 March, 11 April, 26 April 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates

on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

10 May 2001

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 4.50%, with effect from the operation to be settled on 15 May 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.50% and 3.50% respectively, both with effect from 11 May 2001.

23 May, 7 June, 21 June, 5 July, 19 July, 2 August 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.50%, 5.50% and 3.50% respectively.

30 August 2001

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 4.25%, with effect from the operation to be settled on 5 September 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.25% and 3.25% respectively, both with effect from 31 August 2001.

13 September 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates

on the marginal lending facility and the deposit facility will remain unchanged at 4.25%, 5.25% and 3.25% respectively.

17 September 2001

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 3.75%, with effect from the operation to be settled on 19 September 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 4.75% and 2.75% respectively, both with effect from 18 September 2001.

27 September, 11 October, 25 October 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.75%, 4.75% and 2.75% respectively.

8 November 2001

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 3.25%, starting from the operation to be settled on 14 November 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 4.25% and 2.25% respectively, both with effect from 9 November 2001. The Governing Council also decides that it will – as a rule – henceforth assess the stance of the ECB's monetary policy only at its first meeting of the month.

6 December 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively. In addition, it decides that the reference value for the annual growth rate of the broad monetary aggregate M3 will remain at 4½%.

3 January 2002

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively. The Governing Council also decides on an allotment amount of €20 billion per operation for the longer-term refinancing operations to be conducted in 2002. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2002 and the desire of the Eurosystem to continue to provide the bulk of refinancing to the financial sector through its main refinancing to operations. The Governing Council makes provision for the fact that it may adjust the allotment amount in the course of the year in the event of unexpected developments in liquidity needs.

7 February, 7 March 2002

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

Legal instruments adopted by the European Central Bank in 2001

This list sets out the legal instruments which were adopted by the ECB in 2001 and published in the Official Journal of the European Communities. These and other legal instruments adopted by the ECB and published in the Official Journal are available

to interested parties from the Office for Official Publications of the European Communities. For a list of the legal instruments adopted by the ECB since its establishment, please visit the ECB's website (<http://www.ecb.int>).

| Number | Title | Publication |
|-------------|---|---|
| ECB/2001/1 | Guideline of the European Central Bank of 10 January 2001 adopting certain provisions on the 2002 cash changeover | OJ L 55, 24.02.2001, pp. 80 – 83 |
| ECB/2001/2 | Recommendation of the European Central Bank of 1 March 2001 for a Council regulation concerning an amendment to Council Regulation (EC) No. 2531/98 of 23 November 1998 concerning the application of minimum reserves by the European Central Bank | OJ C 89, 20.03.2001, pp. 4 – 6 |
| ECB/2001/3 | Guideline of the European Central Bank of 26 April 2001 on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET) | OJ L 140, 24.05.2001, pp. 72 – 86 |
| ECB/2001/4 | Regulation of the European Central Bank of 10 May 2001 amending Regulation ECB/1999/4 on the powers of the European Central Bank to impose sanctions | OJ L 137, 19.05.2001, p. 24 |
| ECB/2001/5 | Guideline of the European Central Bank of 21 June 2001 amending Guideline ECB/2000/1 of 3 February 2000 on the management of the foreign reserve assets of the European Central Bank by the national central banks and the legal documentation for operations involving the foreign reserve assets of the European Central Bank | OJ L 190, 12.07.2001, pp. 26 – 28 |
| ECB/2001/6 | Decision of the European Central Bank of 5 July 2001 amending Decision ECB/1998/4 on the adoption of the conditions of employment for staff of the European Central Bank | OJ L 201, 26.07.2001, p. 25 |
| ECB/2001/7 | Decision of the European Central Bank of 30 August 2001 on the denominations, specifications, reproduction, exchange and withdrawal of euro banknotes | OJ L 233, 31.08.2001, pp. 55 – 57 |
| ECB/2001/8 | Guideline of the European Central Bank of 13 September 2001 adopting certain provisions on the frontloading of euro banknotes outside the euro area | OJ L 257, 26.09.2001, pp. 6 – 9 |
| ECB/2001/9 | Guideline of the European Central Bank of 27 September 2001 for participating Member States' transactions with their foreign exchange working balances pursuant to Article 31.3 of the Statute of the European System of Central Banks and of the European Central Bank | OJ L 276, 19.10.2001, pp. 21 – 26 |
| ECB/2001/10 | Guideline of the European Central Bank of 25 October 2001 amending Guideline ECB/2000/6 of 20 July 2000 on the implementation of Article 52 of the Statute of the European System of Central Banks and of the European Central Bank after the end of the transitional period | OJ L 304, 21.11.2001, pp. 28 – 29 |

| Number | Title | Publication |
|---------------|--|---|
| ECB/2001/11 | Decision of the European Central Bank of 8 November 2001 on certain conditions regarding access to the Counterfeit Monitoring System (CMS) | OJ L 337, 20.12.2001, pp. 49 – 51 |
| ECB/2001/12 | Guideline of the European Central Bank of 16 November 2001 amending Guideline ECB/2000/1 on the management of the foreign reserve assets of the European Central Bank by the national central banks and the legal documentation for operations involving the foreign reserve assets of the European Central Bank | OJ L 310, 28.11.2001, pp. 31 – 32 |
| ECB/2001/13 | Regulation of the European Central Bank of 22 November 2001 concerning the consolidated balance sheet of the monetary financial institutions sector | OJ L 333, 17.12.2001, pp. 1 – 46 |
| ECB/2001/14 | Decision of the European Central Bank of 3 December 2001 amending Decision ECB/2001/7 on the denominations, specification, reproduction, exchange and withdrawal of euro banknotes | OJ L 5, 9.1.2002, pp. 26 – 28 |
| ECB/2001/15 | Decision of the European Central Bank of 6 December 2001 on the issue of euro banknotes | OJ L 337, 20.12.2001, pp. 52 – 54 |
| ECB/2001/16 | Decision of the European Central Bank of 6 December 2001 on the allocation of monetary income of the national central banks of participating Member States from the financial year 2002 | OJ L 337, 20.12.2001, pp. 55 – 61 |
| ECB/2001/17 | Recommendation of the European Central Bank of 6 December 2001 regarding the abrogation of participating Member States' provisions limiting the amount of coins denominated in a national currency unit that can be used in any single payment | OJ C 356, 14.12.2001, pp. 9 – 10 |
| ECB/2001/18 | Regulation of the European Central Bank of 20 December 2001 concerning statistics on interest rates applied by monetary financial institutions to deposits and loans vis-à-vis households and non-financial corporations | OJ L 10, 12.1.2002, pp. 24 – 46 |
| ECB/2001/19 | Decision of the European Central Bank of 20 December 2001 on the approval of the volume of coin issuance in 2002 | OJ L 344, 28.12.2001, p. 89 |

Documents published by the European Central Bank

This list is designed to inform readers about selected documents published by the European Central Bank. The publications are available to interested parties free of charge from the Press and Information Division. Please submit orders in writing to the postal address given on the back of the title page.

For a complete list of documents published by the European Monetary Institute, please visit the ECB's website (<http://www.ecb.int>).

Annual Report

"Annual Report 1998", April 1999.

"Annual Report 1999", April 2000.

"Annual Report 2000", May 2001.

Convergence Report

"Convergence Report 2000", May 2000.

Monthly Bulletin

Articles published from January 1999 onwards:

"The euro area at the start of Stage Three", January 1999.

"The stability-oriented monetary policy strategy of the Eurosystem", January 1999.

"Euro area monetary aggregates and their role in the Eurosystem's monetary policy strategy", February 1999.

"The role of short-term economic indicators in the analysis of price developments in the euro area", April 1999.

"Banking in the euro area: structural features and trends", April 1999.

"The operational framework of the Eurosystem: description and first assessment", May 1999.

"The implementation of the Stability and Growth Pact", May 1999.

"Longer-term developments and cyclical variations in key economic indicators across euro area countries", July 1999.

"The institutional framework of the European System of Central Banks", July 1999.

"The international role of the euro", August 1999.

"The balance sheets of the Monetary Financial Institutions of the euro area in early 1999", August 1999.

"Inflation differentials in a monetary union", October 1999.

"ESCB preparations for the year 2000", October 1999.

“Stability-oriented policies and developments in long-term real interest rates in the 1990s”, November 1999.

“TARGET and payments in euro”, November 1999.

“Legal instruments of the European Central Bank”, November 1999.

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