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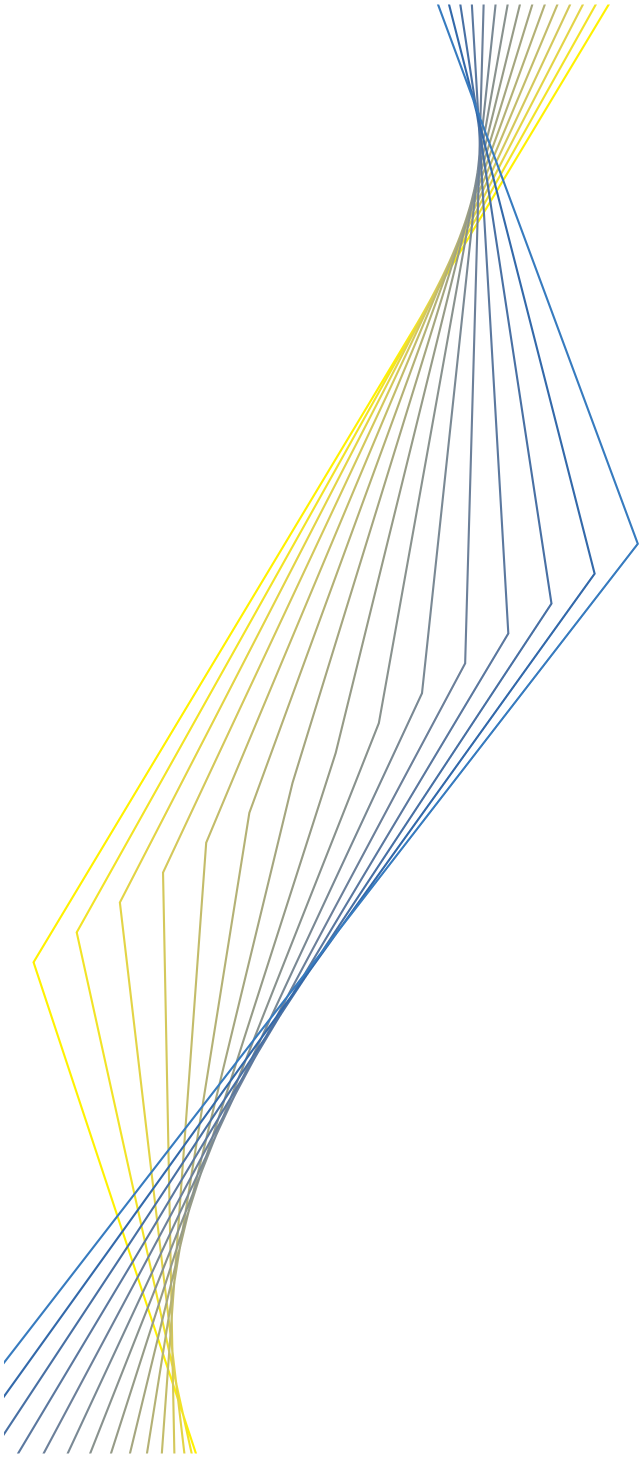

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Contents

Chapter III

Risk management

Chapter IV

Chapter V

European and international co-operation

Chapter VI

Enlargement of the European Union

Chapter VII

Production and issue of banknotes

Chapter VIII

Payment and securities settlement systems

Chapter IX

Financial stability and supervision

Chapter X

Statistical framework

Chapter XI

Other tasks and activities

List of boxes, tables and charts

Boxes

Tables

Charts

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
MFIs	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.

Captions for the photographs in the Annual Report 2002

Foreword

In many ways, 2002 was another historic year in the process of European integration. The first major event was the successful introduction of the euro banknotes and coins on 1 January, which was the final step towards completing Economic and Monetary Union (EMU). As the euro cash changeover was a complex, ambitious and unprecedented undertaking, a smooth and rapid changeover could only be achieved through systematic preparation and the co-ordination of all parties concerned. It was essential, therefore, to closely involve the banking sector, security carriers, retailers and the cash-operated machine industry – as well as institutions of the European Union (EU), the Eurosystem and national authorities – from an early stage. The changeover also required substantial organisational, logistical, technical and economic efforts by everyone involved in the use and handling of banknotes and coins. Above all, however, the success of the euro cash changeover depended on the favourable attitude of and swift acceptance by all citizens. And now, the 300 million citizens of the euro area have fully embraced their new currency, thereby endorsing the idea of a more integrated Europe.

The second key event of 2002 was the decision of the EU Heads of State or Government in December to allow ten new countries to join the EU in 2004, although this decision still needs to be ratified. The historic dimension of this enlargement is threefold. First, it clearly marks the end of post-war rifts within Europe and is therefore of deep political significance. Second, this wave of enlargement is the largest ever undertaken by the EU. Finally, as most of the prospective Member States are still in transition to fully-fledged market economies, the disparities are much greater than in previous enlargements. This therefore poses a major challenge for both current and future Member States.

How quickly the new Member States adopt the euro – once they have joined the EU – will depend on how quickly they fulfil the convergence criteria for entry into the euro area. Differences in economic development between the new Member States may mean that not all countries adopt the euro at the same time. Nonetheless, one of the Eurosystem's key priorities is to have the technical and institutional infrastructure for an enlarged European System of Central Banks (ESCB) in place from 2004, in line with the timetable for EU enlargement. As part of the preparations for enlargement, the Governing Council of the European Central Bank (ECB) has also issued a recommendation on the adjustment of its voting modalities in line with the relevant provisions of the Nice Treaty. Furthermore, the Eurosystem already enjoys close contacts with the central banks of the acceding countries and will increasingly monitor economic, financial, institutional and legal developments in these countries. This Annual Report therefore includes a special chapter on the enlargement process.

The conduct of monetary policy in 2002 was characterised by a high degree of uncertainty with regard to the economic outlook. Average inflation, measured in terms of the Harmonised Index of Consumer Prices (HICP), was 2.2%, slightly lower than in 2001 (2.4%), but still slightly above levels consistent with the ECB's definition of price stability. The average annual growth rate of the broad monetary aggregate M3 increased to above 7%, from around 5½% in 2001, considerably exceeding the reference value of 4½%. This development was the result of high volatility in financial markets, and largely reflected investors' preferences for short-term liquid and less risky financial assets. It also reflected the relatively low interest rates in the euro area in 2002. Strong monetary growth has seen more liquidity accumulate in the euro area than is needed to finance sustainable non-inflationary growth over the longer term. Overall, however, in view of the relatively subdued pace of economic activity and given that some of the portfolio shifts into M3 were likely to be only of a temporary nature, monetary developments in 2002 were not seen as pointing to risks to price stability. This assessment was confirmed by the relatively moderate growth of credit in 2002.

To our disappointment, economic growth in the euro area was lower than expected in 2002, leading to relatively low, but still positive, real GDP growth of 0.8%, compared with 1.4% in 2001. Weak economic conditions prevailed as a number of factors contributed to an unusually high level of uncertainty: geopolitical tensions and their impact on oil prices and confidence, adverse financial market developments (which did not, however, threaten financial stability in the euro area) and the persistence of global imbalances. In this context, and given the gradual strengthening of the euro in 2002 and early 2003, upward pressures on inflation abated, particularly in the second half of this period. This led the Governing Council to cut the key ECB interest rates by 50 basis points in December 2002, and by another 25 basis points in March 2003.

Despite these subdued economic conditions, the inflation rate in the euro area remained relatively high. However, prices were pushed up in 2002 by a number of temporary or one-off factors: base effects, increases in indirect taxation and adverse weather conditions. Furthermore, real wage growth remained strong despite the rise in unemployment, a factor pointing to persistent structural rigidities in the labour markets.

It is acknowledged that some of the price increases last year in some euro area countries were associated with the euro cash changeover. However, the perceived impact of the euro cash changeover on inflation was much greater than the actual impact. Consumers tend to notice increases in the price of goods and services purchased on a frequent basis more than the relatively moderate increases, or even decreases, in the price of infrequently purchased items, which account for a larger share of a household's budget. Moreover, coincident but independent upward pressures on prices, such as those resulting from adverse weather conditions in the winter of 2001/02, were erroneously associated with the euro cash changeover. The very modest overall effect of the cash changeover on price increases is likely to be temporary. Indeed, it is expected that the introduction of the euro will help to keep price increases low in the medium term, as the new currency has increased cross-border price transparency in the euro area, thereby intensifying competition.

In early 2003, the prospects for price stability in the medium term look rather favourable, provided that wage developments remain moderate. Moreover, one of the main messages of 2002 still applies, namely that the pace of structural reforms should be stepped up. This is because more flexible labour and product markets lead to faster price adjustments (thereby facilitating the work of monetary policy-makers) and, more generally, to lower price increases.

Despite the difficult circumstances for the formulation of monetary policy, the low level of long-term inflation expectations and risk premia currently prevailing in bond markets would seem to suggest that economic actors have confidence in the ECB's ability to maintain price stability in the medium term. Given the economic uncertainty, the ECB's monetary policy strategy continued to provide a very useful frame of reference for both the Governing Council (in taking appropriate monetary policy decisions) and financial markets and economic actors (in guiding their expectations regarding monetary policy actions).

The uncertainties surrounding economic developments in 2002 underlined the importance of a stability-oriented macroeconomic policy framework as a beacon for economic actors. In the field of monetary policy, the stability-oriented framework assigns to the ECB the primary objective of maintaining price stability, independently from third parties. In fiscal policy, the Treaty establishing the European Community and the Stability and Growth Pact serve as the anchor for economic actors' expectations. This conceptual framework has also been confirmed by the European Convention, which is drafting a "Treaty establishing a Constitution for Europe" in preparation for the forthcoming Intergovernmental Conference. The adoption of such a Constitution would be an important step for Europe, and it would further strengthen the framework for EMU.

Fiscal developments in the euro area were generally disappointing in 2002. The average budget deficit increased to 2.2% of GDP, from 1.6% in 2001. Most countries failed to comply with the fiscal targets set in their stability programmes. The ECOFIN Council declared, in November 2002 and January 2003 respectively, that Portugal and Germany had excessive deficits. ECOFIN also adopted a recommendation in January 2003 giving an early warning to France to try to prevent the occurrence of an excessive deficit. In 2002 France's budget deficit exceeded the 3% reference value for the deficit-to-GDP ratio as laid down in the Treaty.

Contrary to what is often claimed, the Stability and Growth Pact is not a straitjacket committing countries to pursue pro-cyclical budgetary policies. Instead, provided that countries achieve a medium-term budgetary position close to balance or in surplus, the Pact provides flexibility for the full functioning of automatic stabilisers. Countries that are now struggling to put their fiscal house in order did not reduce their budget deficits sufficiently in previous years when economic conditions were relatively favourable. Countries that did adhere to the rules of the Stability and Growth Pact are now experiencing fewer budgetary difficulties and are benefiting from the smooth operation of automatic stabilisers. To remedy the current fiscal imbalances, countries with a deficit close to or exceeding 3% of GDP should embark on growth-fostering fiscal consolidation measures to bring their budgetary position into line with the requirements of the Stability and Growth Pact.

This Annual Report summarises the activities of the ECB, the Eurosystem and the ESCB in 2002 and provides an overview of monetary, economic and financial developments in the euro area in 2002 and early 2003. The ECB had 1,105 staff members at the end of 2002, compared with 1,043 in 2001. The number of staff is expected to increase in 2003 to 1,263.5, in particular to meet the demands of ESCB enlargement. In 2002 the ECB concluded an agreement with the City of Frankfurt to acquire a site on which to build its own premises; it has subsequently launched an international architectural competition to develop what will be the ECB's final site. When completed, it will enable the ECB to house its entire staff under a single roof rather than in separate rented office blocks, as is currently the case.

This will be the last foreword of an ECB Annual Report to bear my signature. I am very proud to have been the ECB's first President, and to have had the privilege and honour of overseeing the formative years of the ECB and the Eurosystem, including such historic events as the start of the third stage of EMU and the introduction of the euro banknotes and coins. I would like to thank all my colleagues on the Executive Board, the Governing Council and the General Council for their fruitful collaboration over the past five years. I am also very grateful to the

Members of the European Parliament, and in particular its Committee on Economic and Monetary Affairs, the European Council, the ECOFIN Council and the European Commission. And by no means last, I would like to thank the staff of the ECB and the Eurosystem national central banks for their continuous support and commitment to making the introduction of the euro and the functioning of Monetary Union a success. I am immensely proud to have had the opportunity to work with them on this unique, historic project. But above all I would like to thank the citizens of Europe for putting their trust in the euro and its guardian. I can assure you that, both now and in the future, the ECB will endeavour to live up to the expectations of European citizens, and will continue to maintain the purchasing power of our currency, to the benefit of all.

Frankfurt am Main, March 2003

Willem F. Duisenberg

January 2002

The Euro Party on 18 January 2002 – celebrating the introduction of the single currency

Chapter I

Economic developments and monetary policy

1 Overview: monetary policy decisions in 2002

The environment in which monetary policy operated in 2002 was one of considerable uncertainty. Signals regarding medium-term inflationary pressures were at times mixed and subject to change. Following the slowdown in economic activity throughout 2001, which was further aggravated by the negative shocks to confidence in connection with the terrorist attacks in the United States in September of that year, the beginning of 2002 saw a moderate recovery of real GDP growth in the euro area. However, as the year progressed, the recovery lost momentum, affected by the renewed turbulence in financial markets and geopolitical tensions which had consequences for oil prices and confidence. Overall, annual real GDP growth in the euro area is estimated at 0.8% in 2002, having been 1.4% in 2001.

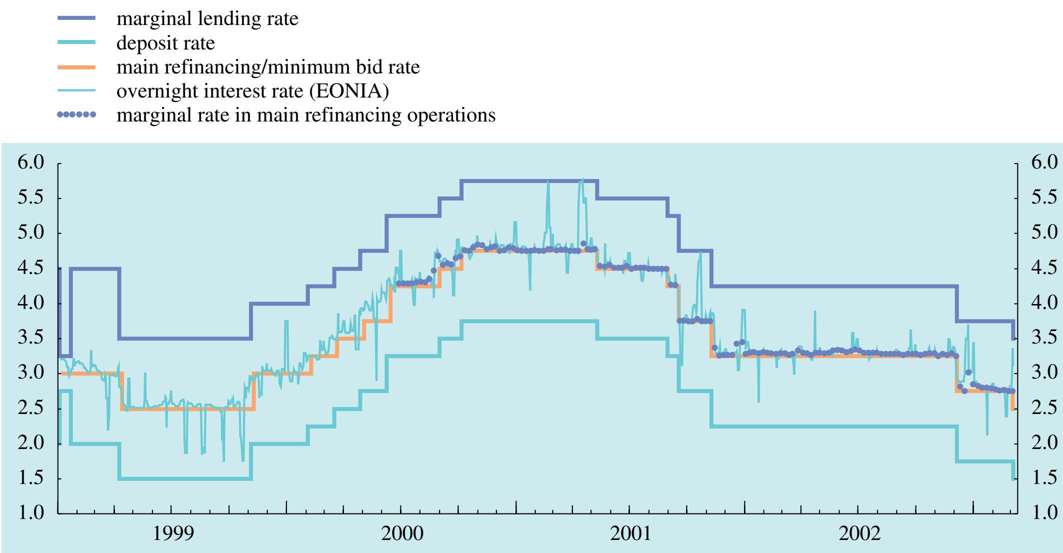
Despite the subdued pace of economic recovery, HICP inflation slowed down only moderately, from 2.4% on average in 2001 to 2.2% in 2002, thus remaining slightly above the upper limit of the ECB's definition of price stability. In the first half of the year, temporary factors – such as unfavourable weather conditions affecting food prices – contributed to the higher inflation rates, and other elements, such as monetary and wage developments, gave rise to concerns regarding the maintenance of price stability in the euro area over the medium term. Later on in the year, a significant increase in oil prices introduced some upward pressure on consumer prices, but other factors helped to dampen inflationary risks. These related to the protracted subdued pace of economic growth as well as to the significant appreciation of the euro.

Given these counterbalancing factors, during most of 2002 the Governing Council kept the minimum bid rate on its main refinancing operation unchanged at 3.25%. However, as the weakness in economic activity did not dissipate amid persistent geopolitical tensions, and given the sustained appreciation of the euro, inflationary pressures were seen as having diminished. As a consequence, the Governing Council decided to reduce the key ECB interest rates by 50 basis points in December 2002 and again by 25 basis points in March 2003 (see Chart 1).

Chart 1

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.

The monetary policy decisions taken in 2002 and at the beginning of 2003 should also be seen in the light of the significant reduction in the key ECB interest rates (by a total of 150 basis points, with the rate on the main refinancing operations being lowered to 3.25% on 8 November 2001) decided by the Governing Council in 2001. In 2001, and notably after the terrorist attacks in September of that year, the evidence available indicated that the slowdown in economic activity in the euro area was likely to last longer and be more pronounced than previously expected, thereby contributing to containing upward price pressures. At the same time, the impact of previous upward shocks to prices – stemming from oil price increases, the depreciation of the euro in 1999 and 2000 and the food price increases in early 2001 – was gradually fading. Overall, these factors pointed to lower inflationary pressures over the medium term and, together with the slowdown in economic activity, were expected to support wage moderation. This assessment was not contradicted by the analysis of monetary data. Monetary growth strengthened in the second half of 2001, in particular after the terrorist attacks, but this largely reflected shifts in private investors' portfolios from shares and other longer-term financial assets towards more liquid, relatively safe short-term assets included in M3. Furthermore, the annual growth of credit to the private sector continued to decline.

In the first few months of 2002, and starting with the analysis under the first pillar of the ECB's monetary policy strategy, M3 growth moderated somewhat, following the large portfolio shifts witnessed in autumn 2001. However, this moderation proceeded at a very slow pace and then came to a halt in the second quarter of 2002, when there was a notable strengthening in the demand for M1. In addition to the persistence of uncertainty in the stock markets, the low opportunity cost of holding money seemed to be driving monetary expansion during this period. Also in early 2002, the growth rate of loans to the private sector continued to decline, although it appeared to stabilise in the second quarter of the year. At this time, the fact that there was significantly more liquidity available in the euro area than may have been needed to finance sustainable, non-inflationary economic growth was increasingly becoming a matter of concern.

Turning to the analysis under the second pillar in the first half of 2002, the incoming information in early 2002 confirmed the Governing Council's earlier expectations with regard to the economic outlook for the euro area. The evidence available in the first few months of the year started to indicate that the trough in economic activity may have been attained in late 2001 and that a recovery was likely to take place in the course of 2002. Uncertainty vis-à-vis the global environment seemed to decrease somewhat. In the euro area, quarter-on-quarter real GDP growth turned positive in the first quarter of the year, and survey data started to indicate that a firming of economic activity could be taking hold. The expectation of an economic recovery was supported by the absence of any major macroeconomic imbalances in the euro area which could require a lengthy adjustment process. In this environment, the low interest rates and the beneficial effects on real disposable income from the expected declines in inflation were considered to underpin growth in domestic demand.

Projections by the Eurosystem's staff, as well as forecasts by international organisations and private institutions, painted a broadly similar picture in the spring of 2002. The general expectation was that euro area real GDP growth would again be in line with trend potential growth later in the year and stabilise at those levels in 2003. The expectation of a relatively smooth economic recovery was also in line with the expectations of financial markets, as embedded in bond yields. Despite this expectation, the precise pattern of the economic upswing remained uncertain, not least in the context of substantially increasing oil prices and the macroeconomic imbalances elsewhere in the world.

With regard to consumer price inflation, annual inflation rates at the beginning of 2002 were relatively high, starting from a level of 2.7% in

January. The HICP inflation rate was also somewhat erratic in early 2002, mainly owing to exceptional and short-lived factors: adverse weather conditions which led to higher food prices, higher indirect taxes and adverse base effects from developments in energy prices in early 2001. The overall impact of the euro cash changeover on the price level was deemed to be small, despite some upward impact on prices, in particular for certain services. The annual growth rates of the HICP gradually declined after the first couple of months of the year, mainly on account of base effects. However, this decline took place at a relatively slow pace, partly owing to the oil price increases that had occurred in early 2002. At the same time, it was of concern that inflation excluding the more volatile energy and unprocessed food components was persistently high, reflecting developments in services prices in particular. Furthermore, wage trends were not reassuring. Overall, developments in inflation were therefore somewhat less favourable than foreseen at the end of 2001.

Against this background, in the first few months of 2002 the Governing Council became increasingly concerned that monetary developments, wage trends and the high persistence of services price inflation could imply upward risks to price stability in the medium term. However, the appreciation of the euro which started in the spring dampened the upward risks to price stability. Furthermore, an important factor shaping the monetary policy assessment at that time was that the economic outlook was still subject to uncertainty. Given that some factors pointed to increasing inflationary pressures, although there was still uncertainty surrounding the fundamental strength of economic growth (which in turn could also fundamentally affect the outlook for price stability), the Governing Council was of the view that the information available at that time sent out inconclusive signals as regards the balance of risks to price stability over the medium term.

In the second half of 2002, concerns regarding the economic outlook strengthened, as reflected in the negative performance of financial markets. The renewed sharp falls in global stock market prices during the summer reinforced the downward trend in progress in these markets since the record highs of early 2000. Although the overvaluation of stocks is always difficult to assess precisely, the stock market declines were partly a correction of past excesses. They were caused by factors such as increased market uncertainty regarding the reliability of financial accounting information, weaker than expected corporate earnings and the gradual increase in geopolitical tensions, also given their consequences for oil prices. The evidence available suggests that despite the significant increase in equity holdings by euro area households starting in the late 1990s, the direct effects of stock market changes on consumer spending are typically smaller in the euro area than in other major economies. However, the fact that the stock market decline was of a global nature increased the likelihood that the euro area economy would be affected by international linkages. In addition, turbulence in stock markets made it more expensive for corporations to raise funds in the equity markets. These declines were also accompanied by an increase in the spread on bond funding for euro area firms, especially the lower-rated companies. Apart from the uncertainty in financial markets, the persistence of major macroeconomic imbalances outside the euro area also continued to weigh on the climate of uncertainty prevailing in the euro area and the world in general.

These factors were reflected in forward-looking indicators. Following a continued improvement up to mid-2002, confidence indicators and survey data suggested that a further acceleration of economic activity was no longer likely that year. Furthermore, geopolitical tensions heightened in the second half of 2002, leading to a sharp increase in oil prices. The economic recovery in the euro area and the world economy therefore seemed set to progress more slowly in the second half of 2002 than had been expected at the beginning of the year. In view of this, and in line with a similar assessment by public and private institutions as well as the Eurosystem staff projections, the Governing Council gradually scaled down its expectations for economic growth during the remainder of the year and the first few months of 2003. As a consequence, an increase in real GDP growth rates was expected to occur only in the course of 2003. The data on economic activity which became available in the second half of 2002 and early 2003 confirmed that economic growth had indeed remained very weak.

As regards price developments, HICP inflation hovered around 2%, the upper limit of the ECB's definition of price stability, in the second half of the year. Furthermore, HICP inflation excluding the more volatile items of energy and unprocessed food prices remained relatively high, at rates of around 2½%, reflecting in particular the strong dynamics in services prices, which could, in turn, be traced – at least in part – to the upward trend in nominal wage increases that had persisted until the beginning of 2002. All in all, the fact that consumer price inflation continued to remain at these levels suggested that the structural rigidities present in the euro area might have hampered an appropriate adjustment of wages and prices in the context of weak economic growth.

However, looking ahead, the subdued economic activity was seen as a factor that would eventually limit the potential upward risks to price stability. Although wage-related risks had not disappeared, they were deemed less likely to materialise as long as the economic environment did not change substantially. The higher level of the euro in the second half of 2002 and in the first few months of 2003 compared with the first half of 2002 was also expected to contribute further towards reducing inflationary pressures.

The assessment of the implications for price stability of monetary developments was less straightforward in the second half of 2002. While monetary growth remained strong after the summer, the factors underlying the monetary trends had to be assessed with caution. On the one hand, the continued strength of monetary growth was, to a large extent, triggered by the turbulence in stock markets, which increased the attraction of investors to liquid and safe assets included in M3. On the other hand, it was a consequence of the low opportunity cost of holding money, as the low level of interest rates prevailing in the euro area tended to stimulate monetary expansion, reflected in particular in a significant increase in the narrow aggregate M1. Taking a long-term perspective, the strong monetary growth in the euro area continued to be of concern, as more liquidity was available than may have been needed to finance sustainable non-inflationary growth. However, the Governing Council considered that the risk of this excess liquidity translating into inflationary pressures was small in an environment of subdued economic growth. This assessment was supported by the moderation in the annual growth of loans to the private sector, particularly to non-financial corporations.

Overall, reflecting weak economic growth and the appreciation of the euro, the evidence from the autumn of 2002 onwards gradually started to point to an easing of inflationary pressures. Although tensions in the oil markets made it difficult to forecast short-term inflation developments, this analysis led to the assessment that there were improved prospects for inflation to fall to below 2% in the course of 2003 and remain in line with price stability thereafter. As a result, the Governing Council decided to reduce the key ECB interest rates by 50 basis points at its meeting on 5 December 2002 and again by 25 basis points on 6 March 2003. The minimum bid rate on the main refinancing operations thereby reached 2.50%, which was a very low level by historical standards. The decisions to reduce the key ECB interest rates were expected to provide some counterweight to the various factors having an adverse effect on economic activity, thereby contributing to the preservation of price stability over the medium term.

At its meeting on 5 December the Governing Council also reviewed the reference value for monetary growth, which plays an important role under the first pillar of the ECB's monetary policy strategy. It decided to leave the value unchanged at an annual growth rate of 4½% for the broad aggregate M3. This decision was based on the fact that the evidence continues to support the assumptions which have formed the basis for deriving the reference value since December 1998, namely those relating to trend potential output growth of 2-2½% per annum and to a trend decline in M3 income velocity of ½-1% per annum in the euro area. In December 2002 the Governing Council restated that the reference value is a medium-term concept which needs to be borne in mind when comparing ongoing developments in M3 with the reference value. Indeed, the experience of the last two years suggests that short-term movements of M3 do not necessarily have implications for future price developments and that deviations of M3 from the reference value must be analysed in conjunction with other real and financial indicators in order for their implications for price stability to be understood.

Box 1

Experiences with the impact on money market volatility of the Governing Council's decision to switch to monthly assessments of the monetary policy stance

At its meeting on 8 November 2001, the Governing Council of the ECB decided that it would henceforth, as a rule, assess the monetary policy stance only at its first meeting of the month and normally take interest rate decisions only at this meeting. One of the aims of this decision was to contribute to a stabilisation of financial markets. Although the monetary policy decisions of the ECB have generally been predictable since the start of Stage Three of Economic and Monetary Union,[1] market uncertainty sometimes surrounded the exact timing and magnitude of such decisions. The high frequency of the meetings is likely to have contributed to this uncertainty. In this respect, it was considered that switching to monthly monetary policy decisions would also contribute to a stabilising of the bidding behaviour of counterparties in the regular refinancing operations. With fewer opportunities for markets to focus on interest rate changes, there would evidently be fewer incentives for speculative behaviour, and thus interest rates in the ECB's tender operations would become less volatile.

Against this background, this box examines whether market interest rates have become more stable since the change in the frequency of monetary policy meetings. It focuses on money market interest rates at very short maturities, since it is these which should mainly be affected by the reduction in the frequency of the monetary policy meetings. However, such an analysis is not easy to conduct, as it is difficult to control for all the other elements which may potentially affect the volatility of these money market rates, including the frequency of changes in the key ECB interest rates.

In principle, it can be expected that the reduced frequency of monetary policy meetings would lower the volatility of money market rates mainly at short-end maturities. At the same time, the switch to monthly monetary policy meetings can hardly be expected to have any influence at the long end of the money market curve, which rather tends to signal the degree of macroeconomic uncertainty.

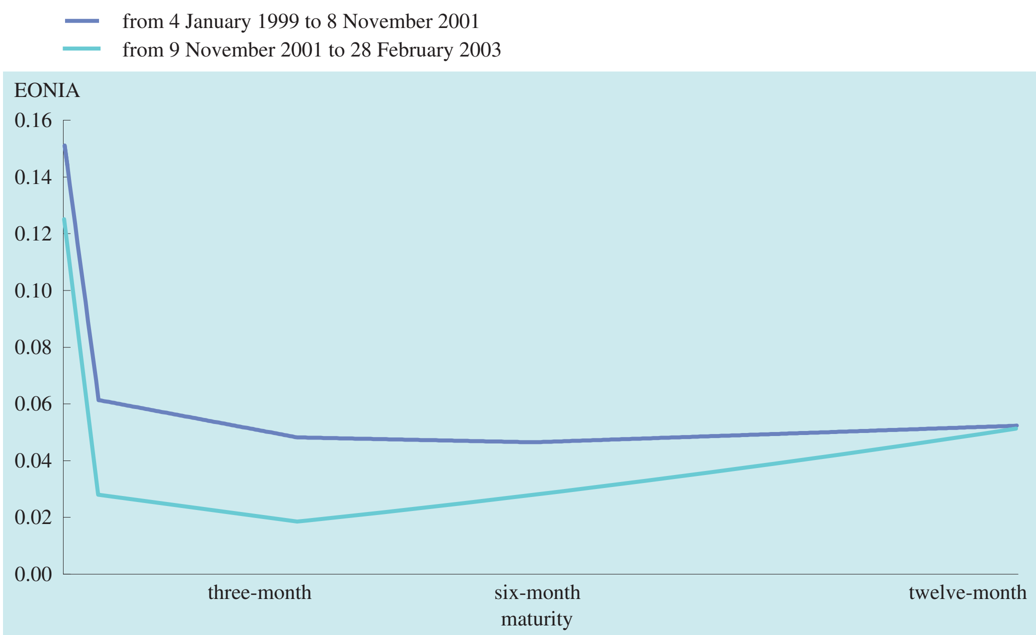
The chart below shows the volatility pattern from daily to one-year money market interest rates between 4 January 1999 and 8 November 2001 and from 9 November 2001 onwards. The volatility of the one-year interest rates after the change to monthly monetary policy meetings is similar to the volatility in the previous period. This indicates that the general uncertainty did not change much in the period following the decision to switch to monthly monetary policy meetings. However, the volatility in shorter-term interest rates was significantly

1 *Pérez-Quirós and Sicilia (2002), "Is the European Central Bank (and the United States Federal Reserve) predictable?", ECB Working Paper No. 192. See also Gaspar, Pérez-Quirós and Sicilia (2001), "The ECB monetary policy strategy and the money market", International Journal of Finance and Economics 6, 2001, pp. 325-342.*

reduced after the change in the frequency of monetary policy meetings. While it is difficult to reach firm conclusions after only one year, the decline in volatility may indicate that uncertainty as regards the timing of the monetary policy decisions has indeed been reduced in conjunction with the decision to hold monetary policy meetings less frequently.

Term structure of interest rate volatility

(standard deviation over the specified period of daily changes in the levels of money market interest rates in the euro area; percentage points)



Source: ECB.
Note: Interpolation of the standard deviation of the EONIA rate and two-week, three, six and twelve-month EONIA swap rates.

2 Monetary and financial developments

2.1 Monetary developments

M3 growth remained strong in the course of 2002

The average annual growth rate of the broad monetary aggregate M3 increased to 7.4% in 2002, from 5.5% in 2001. Following a substantial strengthening in the second half of 2001, annual M3 growth moderated somewhat in the first few months of 2002 to stabilise at around 7% thereafter (see Chart 2). While the three-month moving average of the annual growth rates of M3 also declined somewhat in the course of 2002, it exceeded the reference value of 4½% considerably over the course of the year.

The strong monetary growth observed in 2002 continued to reflect, to a large extent, developments in financial markets. As was also the case in the second half of 2001, non-MFI investors demonstrated a pronounced preference for safe and liquid assets in response to declining stock prices and high volatility in financial markets. Following the normalisation in global stock markets in late 2001 and early 2002 – as indicated by the slight recovery in stock prices and the sharp fall in implied stock market volatility – the short-term dynamics of M3 weakened somewhat in the first few months of 2002. Thereafter, however, against a background of renewed declines in stock prices and heightened stock market volatility, non-MFI

Chart 2

M3 growth and the reference value

(adjusted for seasonal and calendar effects)

Source: ECB.

investors once again showed a strong preference for safe and liquid assets. While, over the summer months, funds were invested both in M3 instruments and longer-term interest-bearing assets at the expense of equity, later on funds seemed to have again been mainly directed towards short-term assets included in M3, reflecting a flattening of the yield curve and higher volatility in bond markets. In line with these developments, the shorter-term dynamics of M3 strengthened considerably towards the end of the year.

However, portfolio shifts were not the only factor driving strong monetary dynamics in 2002. It is likely that M3 growth was also fuelled by the low level of short-term interest rates and thus relatively low opportunity costs of holding, in particular, the most liquid components of M3. This is reflected in the gradual rise in the annual growth rate of the narrow monetary aggregate M1 to 8.8% in the fourth quarter of 2002, from 5.5% in the same quarter of 2001.

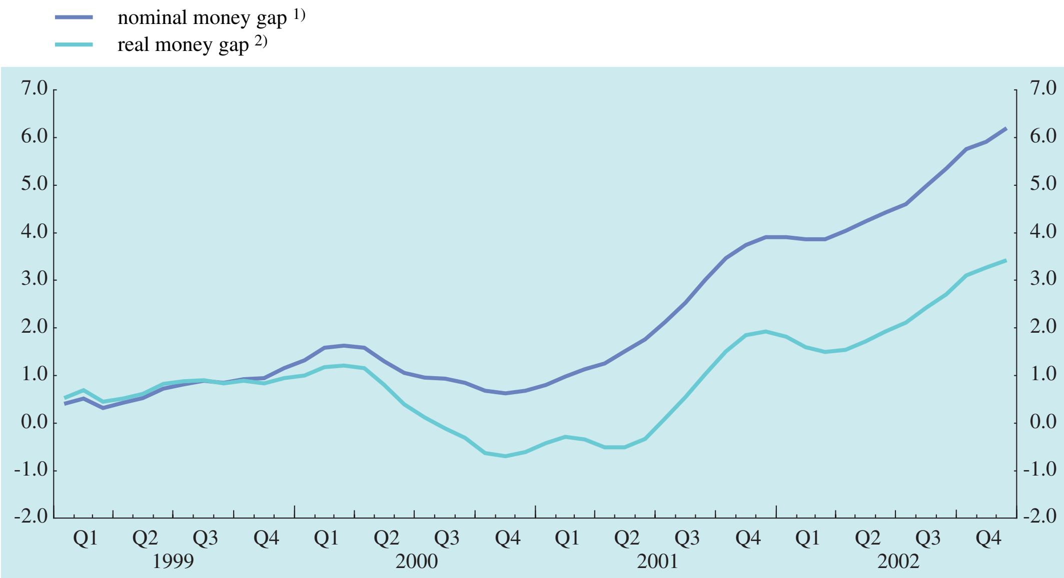
This protracted period of strong monetary growth has resulted in the accumulation of more liquidity in the euro area than may be needed to finance sustainable non-inflationary growth. This is illustrated by indicators of excess liquidity. In Chart 3, the measure of the nominal money gap is defined as the difference between the actual level of M3 and the level of M3 implied by continuous monetary growth in line with the reference value of 4½% since December 1998 (taken as the base period). Furthermore, 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 M3 in real terms implied by nominal monetary growth in line with the reference value of 4½% and a level of inflation in line with the ECB's definition of price stability, again taking December 1998 as the base period.[1] Having declined slightly during the first few months of 2002, both the nominal

1 *When interpreting the nominal and real money gaps, it has to be taken into account that the choice of the base period is somewhat arbitrary. As a result, the levels of these measures are less informative than the changes in these levels (see the article entitled "Framework and tools of monetary analysis" in the May 2001 issue of the ECB's Monthly Bulletin).*

Chart 3

Measures of nominal and real money gaps

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



Source: ECB.

1) *Deviation of the actual stock 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 a level compatible with the definition of price stability, taking December 1998 as the base period.*

and the real money gaps gradually increased, and by late 2002 they reached their highest level since the start of Stage Three of Economic and Monetary Union (EMU).

These strong monetary dynamics in 2002 were mainly driven by developments in M1 and marketable instruments (see Table 1). Within M1, there was a strong rebound in the annual growth rate of currency in circulation. After the level fell by nearly one-third in the run-up to the euro cash changeover in 2001, economic agents rebuilt their currency holdings relatively quickly in 2002. This mainly reflected the reversal of previous shifts from currency to overnight deposits and other short-term deposits included in M3, but also a revival in the demand for euro banknotes by non-euro area residents, as suggested by data from the euro area balance of payments. Owing to the reversal of previous shifts out of currency, the annual growth rate of overnight deposits declined somewhat in the course of 2002, but remained relatively high. As noted above, developments in M1 as a whole seemed to mainly reflect the low opportunity costs of holding currency and overnight deposits. In addition, the turbulence in financial markets probably also led to an increase in the demand for very liquid assets, particularly in the second half of the year.

By contrast, the annual growth rate of short-term deposits other than overnight deposits declined in 2002, to 4.9% in the last quarter, from 5.9% in the same quarter of 2001. This decline was mainly driven by developments in short-term time deposits (i.e. deposits with an agreed maturity of up to two years) which were partly compensated for by stronger annual growth in short-term savings deposits (i.e. deposits redeemable at a period of notice of up to three months). The comparatively low level of the retail rate differential between both types of short-term deposits seemingly made the holding of short-term savings deposits relatively attractive. The decline in the annual growth rate of total short-term deposits other than overnight

Table 1

Components of M3

(annual percentage changes; annual and quarterly averages)

	2001	2002	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Jan.
Adjusted for seasonal and calendar effects								
M1	3.6	7.3	5.5	6.2	6.6	7.6	8.8	9.8
of which: currency in circulation	-7.6	-11.8	-18.6	-28.0	-19.9	-7.7	12.9	34.6
of which: overnight deposits	5.9	10.7	10.4	13.0	11.7	10.3	8.2	6.6
M2 - M1 (= other short-term deposits)	4.8	5.9	5.9	6.7	6.4	5.5	4.9	4.0
M2	4.2	6.5	5.7	6.5	6.5	6.5	6.7	6.7
M3 - M2 (= marketable instruments)	14.2	12.3	20.6	15.9	14.0	11.6	8.4	11.0
M3	5.5	7.4	7.7	7.8	7.5	7.2	7.0	7.4
Not adjusted for seasonal and calendar effects								
Currency in circulation	-7.7	-11.6	-18.4	-27.9	-19.7	-7.7	12.9	35.2
Overnight deposits	5.9	10.8	10.1	13.0	11.7	10.4	8.3	6.1
Deposits with agreed maturity of up to two years	11.9	2.3	7.3	3.6	2.9	1.4	1.3	0.6
Deposits redeemable at notice of up to three months	-0.5	8.8	5.0	9.1	9.4	8.9	7.7	6.9
Repurchase agreements	18.6	3.0	19.5	4.6	2.3	2.9	2.3	11.9
Money market fund shares/units	13.9	23.6	25.5	29.5	25.1	22.4	18.6	17.2
Debt securities issued with a maturity of up to two years [1]	9.3	-2.2	11.5	1.6	3.9	-4.3	-9.2	-8.3

Source: ECB.

1) Including money market paper.

deposits could possibly also in part have been related to reverted shifts to currency holdings following the euro cash changeover.

Despite declining in the course of 2002, the annual growth rate of marketable instruments remained relatively high and stood at 8.4% in the last quarter of 2002. In addition, the shorter-term dynamics strengthened in the second half of 2002, suggesting renewed portfolio shifts to M3 in the context of great uncertainty in financial markets. Within marketable instruments, growth in money market fund shares and units was particularly strong in 2002. These instruments are often used to "park" funds in times of financial market turbulence.

Monetary growth also remained strong in January 2003, due to ongoing portfolio shifts and the low level of short-term interest rates. The three-month average of the annual growth rates of M3 increased to 7.1% in the period from November 2002 to January 2003, from 6.9% in the period from October to December 2002.

Continued slowdown in credit growth to the private sector

Chart 4 provides an overview of movements in M3 and its counterparts in the consolidated MFI balance sheet in 2002. Overall, the strong growth in M3 was accompanied by declining growth in total credit granted by MFIs to euro area residents, increasing growth in the longer-term financial liabilities (excluding capital and reserves) of MFIs and higher net external assets of the euro area MFI sector.

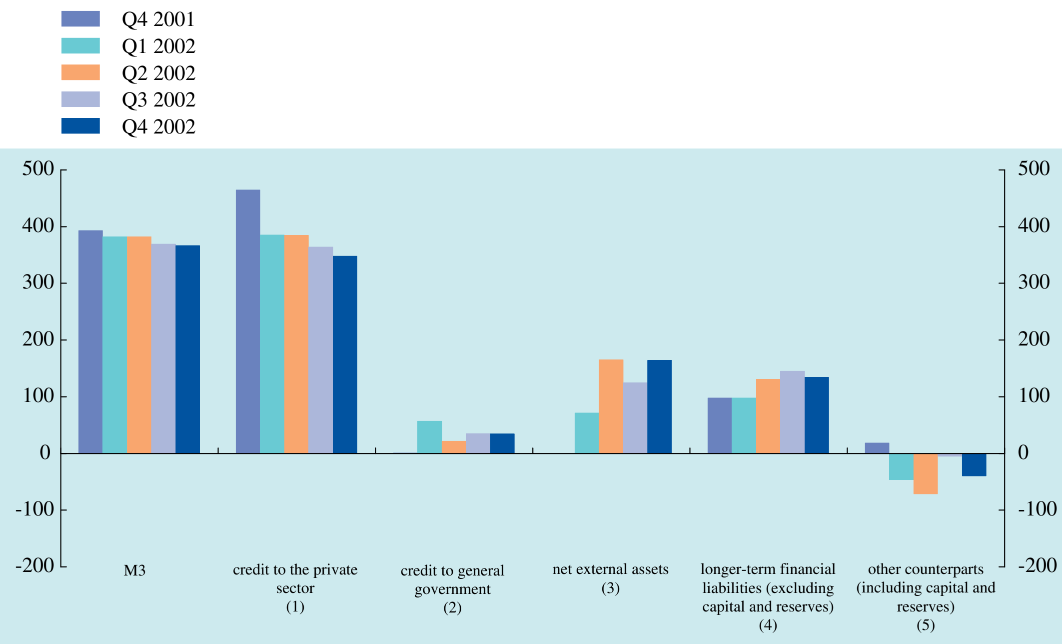
Looking at these developments in more detail, and beginning with credit developments, the average annual growth rate of total credit granted by MFIs to euro area residents declined to 4.5% in 2002, from 5.4% in 2001. This development was driven by a significant decline in the annual growth rate of credit to the private sector, while the annual growth rate of credit to general government turned positive in 2002 (see Table 2).

The decline in the annual rate of growth of credit to the private sector reflected developments in MFI loans, the annual growth

Chart 4

Movements in M3 and its counterparts

(annual flows, end of period; EUR billions; not adjusted for seasonal and calendar effects)



Source: ECB.
M3 = 1 + 2 + 3 - 4 + 5

rate of which fell to 4.8% in the last quarter of 2002, from 6.5% in the same quarter of 2001. In terms of sectoral developments, the annual rate of growth of MFI loans to non-financial corporations fell significantly, partly reflecting weaker merger and acquisition activity, while the annual growth rate of loans to households rose somewhat. (For more details on developments in loans by sector, see the sub-section on developments in the debt financing of the euro area non-financial sectors in Section 2.2.)

Overall, in 2002 the average annual growth rate of loans to the private sector was, in real terms, somewhat below its long-term average since 1980. However, loan dynamics did not seem particularly weak given the environment of subdued economic growth and high economic uncertainty. Therefore, the data on growth in loans did not seem to point to any widespread credit constraints in the euro area. At the same time, it cannot be ruled out that in some countries MFIs may have adopted a more cautious lending approach towards some sectors of the economy.

Finally, the rise in the growth of credit to general government reflected the increased financing needs of general government in the euro area, partly on account of lower fiscal revenues against a background of modest economic growth.

Turning to the other counterparts of M3, the annual growth rate of longer-term financial liabilities (excluding capital and reserves) of MFIs increased significantly in the first three quarters of 2002. Initially, this may have been a reflection of the steepening of the yield curve up to spring 2002, but subsequently also of the renewed increase in uncertainty in global stock markets. In the last quarter of 2002 the annual growth rate of longer-term financial liabilities (excluding capital and reserves) of MFIs remained broadly stable, suggesting that the fuelling impact of stock market developments had been compensated for by the effects of the fall in long-term

Table 2

Counterparts of M3

(annual percentage changes; annual and quarterly averages; not adjusted for seasonal and calendar effects)

	2001	2002	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Jan.
Longer-term financial liabilities (excluding capital and reserves)	3.0	4.4	2.9	3.1	4.0	5.1	5.2	5.7
Deposits with agreed maturity of over two years	-0.2	1.4	-0.2	0.2	0.9	1.9	2.6	2.6
Deposits redeemable at notice of over three months	3.8	-11.2	-5.7	-11.5	-13.2	-11.1	-9.0	-5.3
Debt securities issued with maturity of over two years	5.4	7.8	5.9	6.5	7.7	8.8	8.1	8.7
Credit to euro area residents	5.4	4.5	5.2	5.1	4.5	4.2	4.1	4.2
Credit to general government	-4.0	1.6	-0.7	1.7	1.8	1.1	1.9	1.8
Securities other than shares	-6.2	3.5	-0.7	3.5	3.8	2.5	4.1	3.5
Loans	-1.0	-1.0	-0.8	-0.8	-0.9	-0.9	-1.2	-0.8
Credit to other euro area residents	8.3	5.3	6.9	6.1	5.2	5.0	4.8	4.8
Securities other than shares	22.6	12.5	23.8	22.3	14.8	7.5	6.9	9.1
Shares and other equities	7.2	0.7	3.2	2.1	-3.5	1.0	3.3	0.4
Loans	7.8	5.3	6.5	5.7	5.6	5.3	4.8	5.0

Source: ECB.

interest rates and possibly also by a rise in bond market volatility.

Finally, the 12-month flows in net external assets of the euro area MFI sector continued to increase considerably during the course of 2002. In the 12-month period up to December 2002, net external assets of euro area MFIs rose by €164 billion, while in the 12-month period up to December 2001 their net external assets remained broadly stable. This significant improvement in the net external asset position of euro area MFIs reflected both a substantial improvement in the euro area current account balance and net inflows to the euro area of combined direct and portfolio investment. The latter net inflows were related to, inter alia, subdued portfolio investment by euro area residents in foreign equity and debt instruments.

In summary, annual M3 growth remained buoyant in 2002, resulting in the accumulation of more liquidity than may be needed to finance sustainable non-inflationary growth in the euro area. While there were some indications in the first few months of 2002 of a slight moderation in monetary growth related to a slow reversal of past portfolio shifts, these developments were not confirmed thereafter. On the contrary, later on new portfolio shifts resulted in a further increase in excess liquidity measures. This high excess liquidity was considered a potential risk to price stability in the medium term if it were not corrected over time. However, given the subdued economic growth in 2002, the risk of the accumulated excess liquidity translating into inflationary pressures was considered to be small, a view that prevailed in the second half of 2002 in particular. The continued moderation in the annual growth rate of loans to the private sector supported this assessment.

2.2 Financial markets

Declining growth in the issuance of debt securities

In 2002 the market for debt securities issued by euro area residents continued to grow, although at a slower pace than in 2001. The amount of debt securities outstanding increased by 6.4% between end-2001 and end-2002, compared with 7.1% in 2001. The annual growth of the amount of short-term securities outstanding increased from 4.1% at the end of 2001 to 12.0% at the end of 2002, although, within the year, it dropped to as low as 0.2% in April before recovering in the latter months of the year. Meanwhile, there was a decrease in the annual rate of growth of the amount of long-term debt securities outstanding to 5.8% in 2002, from 7.4% in the previous year.

Issuance activity in 2002 saw a contrast between a decline in the private sector and a rise in the general government sector, reflecting, among other factors, differences in the financing needs of these sectors at a time of weak economic growth.

The annual growth of the total amount outstanding of debt securities issued by the general government increased from 3.4% at the end of 2001 to 5.0% at the end of 2002, with both the central government and the other government sub-sectors stepping up the pace of their issuance activity (see Chart 5). The amount outstanding of debt securities of the other government sub-sector, which is primarily comprised of local and regional governments, grew by 27.4% in 2002, from 24.0% at the end of 2001, reflecting less favourable budgetary developments and the resulting increased borrowing requirements by these parts of government.

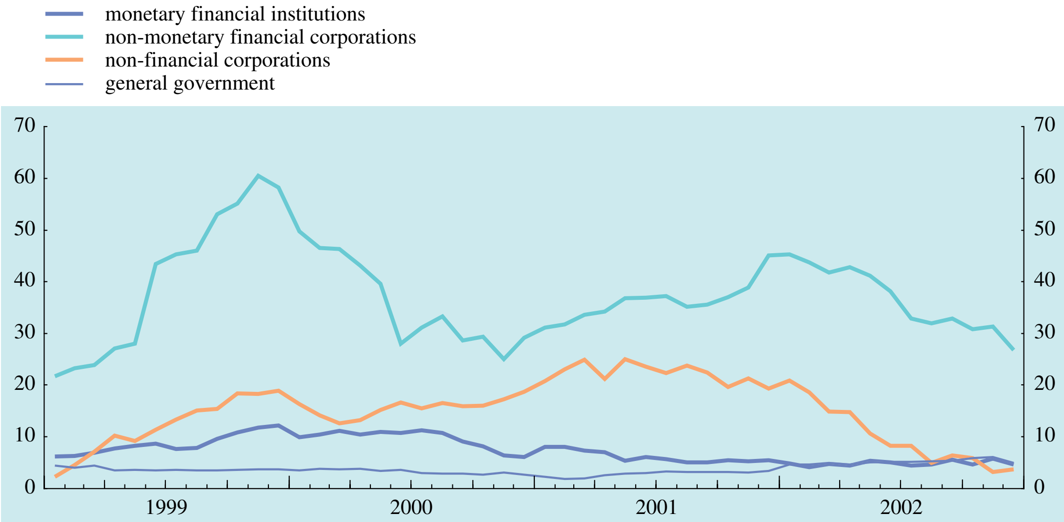
Within the private sector, the annual growth of the total amount outstanding of debt securities issued by MFIs decreased slightly from 5.5% at the end of 2001 to 4.6% at the end of 2002. This decline in issuance activity may have reflected lower funding needs of MFIs due to subdued loan demand by the private non-financial sector against a background of sluggish economic activity, combined with continued strong inflows of deposits to MFIs.

For the private non-MFI sector, the annual growth rate of the amount outstanding of euro-denominated debt securities issued by non-financial corporations declined considerably to 3.7% at the end of 2002, from 19.3% at the end of 2001. The amount outstanding of debt securities issued by non-monetary financial corporations grew by 26.8% in 2002, compared with 45.1% at the end of 2001. The continued strong growth in the pace of issuance activity in this sector may have reflected, in part, a shift from direct issuance by the non-financial corporate sector to indirect issuance via special purpose vehicles (SPVs) located in the non-monetary financial corporate sector. Increased issuance

Chart 5

Amounts outstanding of euro-denominated debt securities issued by euro area residents

(annual percentage changes)



Source: ECB.

activity via this channel may reflect the fact that this source of structured finance generally benefits from high credit ratings. Nevertheless, the overall slower growth in the amount outstanding of debt securities issued by the private non-MFI sector took place in an environment of reduced needs for working capital financing and rising investor concerns about credit risk. The latter was reflected in a deterioration of corporate financing conditions as corporate bond spreads at the lower end of the credit quality spectrum widened considerably, reaching relatively high levels in the course of 2002 in comparison with previous years. During the year, rating downgrades among investment-grade companies also tended to rise. This meant that the funding costs in the corporate bond markets of those companies that descended through the quality spectrum – which became "fallen angels" after losing their investment-grade status – rose by more than the widening of spreads.

Even though the annual growth rate of the amount outstanding of euro-denominated debt securities declined considerably, corporate financing conditions did not deteriorate severely. Debt securities issuance activity remained quite sustained. Moreover, for investment-grade debt securities overall funding costs improved, as the widening of spreads over government bonds was more than offset by the drops in long-term

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	2002
MFIs	35.8	37.0	37.4	36.5	36.1
Non-MFI corporations	7.1	8.5	9.7	11.6	12.5
Non-monetary financial corporations	*2.3*	*3.3*	*4.0*	*5.3*	*6.3*
Non-financial corporations	*4.8*	*5.2*	*5.7*	*6.3*	*6.2*
General government	57.1	54.5	52.9	51.9	51.4
Central government	*55.4*	*52.9*	*51.2*	*50.0*	*49.1*
Other general government	*1.7*	*1.6*	*1.7*	*1.9*	*2.3*

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

government bond yields (see Chart 11(a)). Overall, the euro-denominated corporate bond market showed a substantial degree of resilience.

Underlying the weak issuance activity of the private sector was a notable decrease in the growth of the amounts outstanding of short-term debt securities. When faced with widespread corporate credit rating downgrades, as mentioned above, some issuers found market conditions easier for issuing long-term as opposed to short-term paper, as some investors would not take up short-term paper below certain credit ratings.

Despite the fall in growth rates, the proportion of debt securities outstanding issued by both non-monetary financial and non-financial corporations in total resident issues was slightly up at the end of 2002 at 12.5%, compared with 11.6% at the end of 2001 (see Table 3). Mirroring this small change, the shares of the MFI and the general government sectors in the stock of euro-denominated debt securities also remained broadly unchanged at 36.1% and 51.4% respectively at the end of 2002. In terms of both amounts outstanding and overall issuance, these two sectors together continued to dominate the securities market for euro-denominated debt.

The share of gross issuance by euro area residents of euro-denominated debt securities in their total gross issuance in all currencies was stable at around 93% in 2002. Also, the annual growth of non-euro-denominated debt securities issued by euro area residents remained broadly stable at 11.3% in 2002. Since the start of Stage Three of EMU, the increase in euro area residents' issuance of foreign currency-denominated debt securities has been systematically stronger than their issuance in euro. This may be linked to the growing internationalisation of capital markets, which has encouraged increased currency diversification by issuers of euro area debt securities (see Box 2 entitled "Recent improvements in securities issues statistics"

Table 4

Debt financing of the euro area non-financial sectors [1)]

	Outstanding amount as a percentage of (sector) debt financing [2)]	Annual growth rates (end of period) [3)]						
		1999	2000	2001	2002 Q1	2002 Q2	2002 Q3	*2002 Q4 [4)]*
Total	**100**	**6.3**	**7.2**	**5.4**	**5.4**	**5.1**	**4.7**	***4 ¼***
of which: short-term debt financing	17.8	5.3	11.0	5.4	3.0	1.6	0.8	*1 ½*
of which: long-term debt financing	82.2	6.6	6.4	5.4	5.9	5.9	5.6	*5*
Households [5)]	**27.1**	**10.7**	**7.4**	**5.7**	**5.7**	**5.9**	**6.1**	***6***
of which: short-term debt financing	8.1	9.0	6.3	-0.7	-0.6	1.1	1.2	*2 ¼*
of which: long-term debt financing	91.9	10.8	7.5	6.3	6.3	6.4	6.6	*6 ¼*
Non-financial corporations	**33.3**	**8.6**	**14.3**	**8.3**	**6.4**	**5.6**	**4.2**	***3 ¾***
of which: short-term debt financing	30.6	10.9	20.2	5.0	1.0	-2.9	-3.4	*-2 ¼*
of which: long-term debt financing	69.4	7.6	11.7	9.9	9.2	10.0	8.0	*6 ¾*
General government	**39.6**	**2.3**	**1.8**	**2.9**	**4.3**	**4.0**	**4.2**	***3 ½***
of which: short-term debt financing	13.8	-4.6	-2.8	9.2	8.9	11.6	9.7	*9*
of which: long-term debt financing	86.2	3.4	2.5	2.0	3.6	2.8	3.3	*2 ¾*

Source: ECB.

Note: Most of the liability categories in the ESA 95 are covered by the quarterly data on financing of the non-financial sectors in the euro area. Financial derivatives, loans granted by general government and non-financial corporations, unquoted shares, other equity and other payables are not yet included. This also applies to loans granted by banks abroad. For further details, see the footnotes in Table 6.1 in the "Euro area statistics" section of the ECB's Monthly Bulletin.

1) *Debt financing includes loans, debt securities issued, pension fund reserves of non-financial corporations and deposit liabilities of central government. Short-term debt financing, i.e. with an original maturity of up to one year, includes short-term loans, short-term debt securities issued and deposit liabilities of central government.*
2) *As at the end of the third quarter of 2002. Total short-term and long-term debt financing and sector debt financing as a percentage of total debt financing. Sector short-term and long-term debt financing as a percentage of sector debt financing. Figures may not add up exactly due to rounding.*
3) *Annual growth rates are calculated as the ratio of the cumulative amount of debt financing in the last four quarters to the initial stock.*
4) *Figures for the most recent quarter have been estimated on the basis of transactions as reported in money and banking statistics and securities issues statistics.*
5) *Including non-profit institutions serving households.*

on page 15 of the January 2003 issue of the Monthly Bulletin). The euro also remained an attractive currency for international issuers. The annual rate of growth of the amount outstanding of euro-denominated debt securities issued by non-residents of the euro area was about 12.9% in 2002, compared with 17.5% at the end of 2001.

Divergent developments in the debt financing of the euro area non-financial sectors

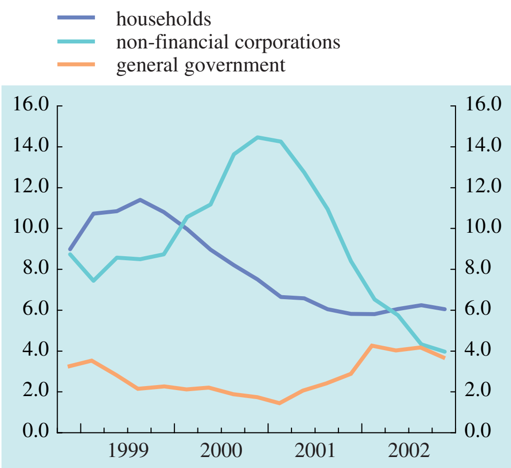
In line with the developments in MFI loans and in debt securities issuance, the annual growth rate of debt financing of the euro area non-financial sectors declined in the course of 2002 to around 4¼% in the fourth quarter, down from 5.4% in the last quarter of 2001 (see Table 4). This slightly downward trend reflected a continued fall in the annual growth of debt financing of non-financial corporations, while the annual growth rates of debt financing of households and general government increased somewhat compared with the last quarter of 2001 (see Chart 6).

After a protracted decline between the third quarter of 1999 and the first quarter of 2002, the annual growth rate of debt financing of households increased slightly, to around 6% in the fourth quarter of 2002. In particular, households' long-term debt financing (i.e. with an original maturity of over one year) continued to expand at a high pace, reflecting to a large extent the strong growth of loans for house purchase granted by euro area MFIs (see Table 5). This in turn was fuelled by historically low mortgage interest rates and

Chart 6

Debt financing of the euro area non-financial sectors

(annual percentage changes)



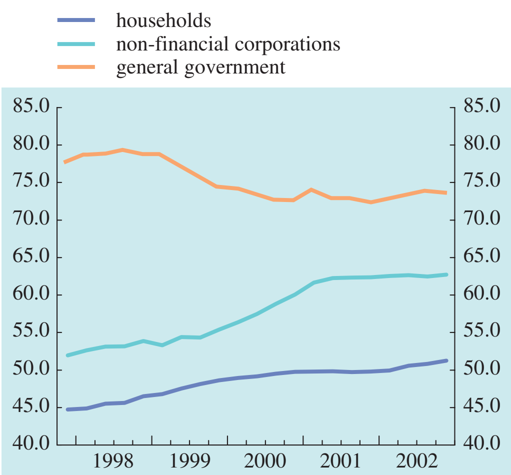
Source: ECB.
Note: For details, see Table 4.

continued strong increases in house prices in some euro area countries. As a consequence of the robust growth of total debt financing of households, the ratio of household debt to GDP rose slightly in 2002 and reached

Chart 7

Debt-to-GDP ratio of the euro area non-financial sectors

(in percentages)



Source: ECB.
Note: For details, see Table 4. Compared with the annual financial accounts, the ratio of debt to GDP is somewhat lower on the basis of the quarterly financial accounts, mainly due to the fact that loans granted by non-financial sectors and by banks outside the euro area are not included.

around 51% in the last quarter of the year (see Chart 7).

The annual growth rate of debt financing of non-financial corporations declined to slightly below 4% in the fourth quarter of 2002, from 8.3% in the same quarter of 2001. In the first half of 2002, this fall mainly reflected a strong decline in the annual rate of change of short-term borrowing (i.e. with an original maturity of up to one year). In particular, non-financial corporations reduced their short-term loans from euro area MFIs, which represent around 75% of the amount outstanding of their short-term debt. The annual growth rate of long-term debt financing of non-financial corporations remained rather strong in this period. In the second half of 2002, by contrast, the annual rate of growth of non-financial corporations' long-term debt financing also declined, to around 6¾% in the last quarter of 2002, compared with 10.0% in the second quarter. This decrease was the result of similar developments in both long-term loans and long-term debt securities issuance. Overall, the ratio of non-financial corporation debt to GDP broadly stabilised at slightly above 62% in 2002 (see Chart 7).

The moderation in the growth of debt financing of non-financial corporations mirrored significantly weaker merger and acquisition activity and subdued real investment activity in the context of weak aggregate demand and low corporate earnings. In addition, non-financial corporations may have felt the need to improve their balance sheet positions and reduce their debt levels. Finally, it cannot be ruled out that in some euro area countries MFIs took a somewhat more cautious approach to granting loans in reaction to the decline in corporate profitability and decreases in the value of non-financial corporations' financial assets.

The annual growth rate of debt financing of general government fluctuated around 4% in 2002, compared with 2.9% in the last quarter of 2001. This reflected increased fiscal borrowing needs against the background of persistently subdued economic growth in the euro area. The annual growth rate of short-

Table 5

MFI loans to households and non-financial corporations

(end of period; not adjusted for seasonal and calendar effects)

	Outstanding amount as a % of total [1]	Annual growth rates						
		1999	2000	2001	2002 Q1	2002 Q2	2002 Q3	2002 Q4
Households [2]	**52.5**	**10.7**	**7.4**	**5.2**	**5.4**	**5.7**	**5.9**	**5.8**
Consumer credit [3]	15.8	7.5	7.8	3.0	3.7	3.0	3.2	3.7
Lending for house purchase [3]	66.4	12.2	8.5	6.9	7.3	7.8	7.8	7.6
Other lending	17.8	8.8	3.6	1.7	0.4	0.9	1.7	1.5
Non-financial corporations	**47.5**	**6.9**	**10.9**	**6.2**	**5.0**	**4.4**	**3.5**	**3.5**
Up to 1 year	33.2	5.9	12.8	2.1	-1.6	-3.1	-2.6	-1.6
Over 1 year	66.8	7.5	9.9	8.6	8.8	8.8	6.9	6.3

Source: ECB.
Note: For further details, see footnotes to Table 2.5 in the "Euro area statistics" section of the Monthly Bulletin and the relevant technical notes.
1) As at the end of the fourth quarter of 2002. Sector loans as a percentage of total MFI loans to the non-financial private sector (excluding non-profit institutions serving households); breakdown by purpose and maturity breakdown as a percentage of MFI loans to the respective sector. Figures may not add up exactly due to rounding.
2) In line with the ESA 95 definition of households, i.e. excluding non-profit institutions serving households.
3) The definitions of consumer credit and lending for house purchase are not fully consistent across the euro area.

term general government borrowing remained high, although declining somewhat in the second half of the year, while the annual growth rate of long-term debt financing fluctuated around 3% only. This may indicate that governments took advantage of the low level of short-term interest rates to meet their additional borrowing requirements.

Stock prices declined further amid a high level of uncertainty in 2002

Continuing the correction that had commenced in March 2000, global stock prices declined in the course of 2002, for the third consecutive year. By the end of 2002, stock prices had returned to levels that were last seen in the aftermath of the financial crisis of autumn 1998 (see Chart 8 (a)). The fall in stock prices was accompanied by an exceptionally high level of uncertainty, as measured by implied stock market volatility, notably in the period between mid-May and early October (see Chart 8 (b) and Box 3).

Overall, broad stock market indices in the United States, Japan and the euro area followed similar patterns in 2002, although Japanese stock prices were at times driven primarily by domestic factors. In early 2002, benchmark stock price indices were relatively stable and implied volatility stood at moderate levels, as market participants generally expected a gradual and steady economic recovery. Between mid-May and late July, however, stock prices came under significant downward pressure, which was triggered in part by mounting concerns about the reliability of financial accounting information disclosed by corporations. This also pushed volatility up to levels as high as in the aftermath of the terrorist attacks in the United States on 11 September 2001. In addition, weaker than expected corporate earnings statements and a worsening of the global economic outlook contributed to depressing stock prices and raising volatility.

In late July and throughout most of August, stock prices rebounded temporarily in the United States and the euro area. This mainly seemed to reflect relief among market participants that accounting irregularities might not, after all, have been as widespread as earlier feared. In the course of September, however, fading optimism about the global economic outlook, as well as an increase in profit warnings, adversely affected stock prices, and all major indices saw sharp drops to year-lows in early October. In the fourth quarter of 2002, stock markets rebounded once more. The rise in stock prices, which was very strong in October and rather more tempered in November before being reversed somewhat in December, took place against a background of better than expected corporate earnings statements and some improvements in economic growth expectations, especially in the United States.

Overall, stock prices in the euro area, as measured by the broad Dow Jones EURO STOXX index, dropped by 35% in 2002. In the United States, stock prices, as measured by the Standard & Poor's 500 index, declined by 23% between end-2001 and end-2002, while, in Japan, the Nikkei 225 index lost 19% over the same period. During the second half of the year implied stock market volatility remained relatively high in the euro area compared with the United States and Japan.

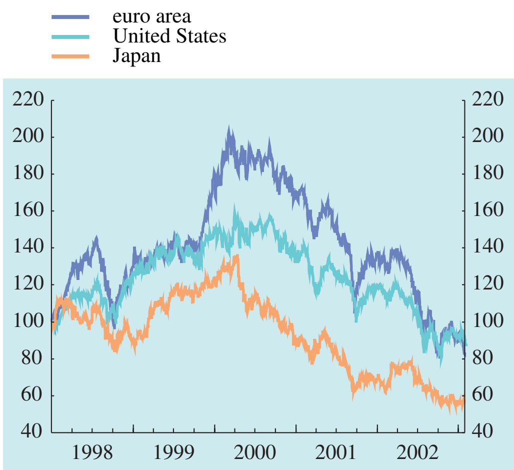
The significant decline in euro area stock prices contributed to pushing price-earnings (P/E) ratios of euro area companies down to levels close to historical averages. By contrast, in the United States, P/E ratios remained somewhat above historical averages in early 2003.

In the United States, weaker than expected corporate earnings figures and a hesitant recovery of economic activity sparked a downward trend in stock prices. In addition, several cases of accounting irregularities raised concerns about the reliability of corporate earnings data. In particular, in late June, WorldCom, a telecommunications company, disclosed the largest re-statement of earnings in US corporate history, prompting a sharp drop in stock prices and a simultaneous surge in market volatility. This induced the Securities and Exchange Commission (SEC) to order senior executives

Chart 8

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

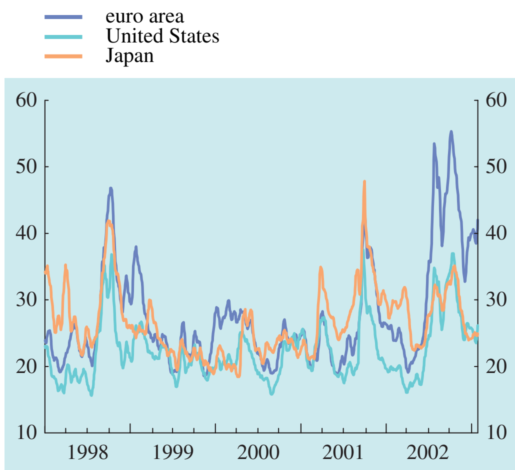
(1 January 1998 = 100; daily data)



Source: Reuters.
Note: The Dow Jones EURO STOXX broad (stock price) index for the euro area, the Standard & Poor's 500 for the United States and the 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, the Standard & Poor's 500 for the United States and the Nikkei 225 for Japan. Prior to 1999, euro area implied volatility is based on synthetic data using available national implied volatility series.

of major US corporations to swear (for most of them, before 14 August 2002) to the accuracy of their financial statements with the aim of abating the concerns about accounting irregularities. As in the two previous years, the scale of the decline in US stock prices in 2002 was particularly pronounced in the technology sector, with the Nasdaq Composite index declining by 32% overall in 2002.

In Japan, stock prices rose during the first half of the year, partly triggered by new measures introduced by the government to tighten regulations on the short-selling of equities. Later on, from the third quarter onwards, however, global factors took over, with high uncertainty leading to "flight-to-safety" portfolio flows into the bond market and pushing stock prices lower. The downward pressure continued towards the end of the year, even though other major stock markets rebounded, as domestic factors, including mounting market concerns about financial fragility and the resolution of the problem of non-performing bank loans, again weighed on Japanese stock prices. On 14 November, the Nikkei 225 index hit a 19-year low.

In the euro area, stock prices were strongly influenced by the swings in US stock markets. However, the downward adjustment in the euro area was more severe and took place against a background of exceptionally high uncertainty, as measured by the implied volatility derived from options on the Dow Jones EURO STOXX 50 index. While the main factors triggering the turbulence in euro area stock markets appeared to have been spillovers prompted by the discovery of accounting irregularities at large US corporations and the continued uncertainty surrounding the strength and timing of the global economic recovery, the stock price decline in the euro area also reflected a number of domestic factors. Among these was the relatively weak economic performance of and the outlook for the euro area economy vis-à-vis the US economy. Second, the fact that long-term government bond yields, which play a crucial role in determining the discount factor for stocks, fell by more in the United States than in the euro area during 2002, may have supported the US stock market to a larger degree.

As regards the sectoral decomposition, the general decline in euro area stock markets was mainly driven by a significant decline in stock prices in the technology, telecommunications and financial sectors, which fell by 52%, 36% and 36% respectively in 2002. Taken together, these three sectors accounted for more than half of the total decline in the broad index in 2002. The decrease in stock prices of technology-based corporations and telecommunications firms seemed partly to reflect an ongoing correction from the high levels of the late 1990s as market participants continued to revise their earnings expectations downwards. Moreover, growing concerns about the high level of indebtedness of telecommunication corporations tended to amplify the decline in stock prices in this sector. In the financial sector, the sharp decline in equity markets in the course of the second and third quarters had an adverse impact both on the profitability of some banks and on the balance sheets of insurance companies that were relatively heavily exposed to changes in stock prices. The insurance sector was also adversely influenced by losses resulting from natural disasters.

The significant decline in stock prices in 2002, in addition to those seen in the previous two years, seemed to have had some negative consequences for the euro area economy. There are basically four channels through which the stock market can have a direct impact on economic activity: wealth effects on private consumption, cost-of-capital effects on corporate investment, and balance sheet and confidence effects on both consumption and investment. However, the importance of the precise impact of each individual channel on economic activity is hard to disentangle (see also Box 3 in the Monthly Bulletin of September 2002). This notwithstanding, available empirical evidence, albeit scarce, suggests that the direct effects of stock market developments on economic activity in the euro area, though discernible, are significantly more limited than those observed for the US economy where the holding of equity is more widespread than in the euro area. Nevertheless, the fact that the stock market decline was of a global nature increased the likelihood that the euro area economy would be affected through international economic linkages.

In the period from end-2002 to 28 February 2003 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 and Poor's 500 index, continued the declining trend of the three previous years, dropping by 9% and 4% respectively. At the same time, uncertainty, as measured by implied stock market volatility, edged up in the first two months of 2003. Two factors seemed to account for these conditions in equity markets. First, in general, stock market developments seemed mainly to reflect ongoing concerns about geopolitical tensions. Second, signals from economic data releases and corporate earnings figures were rather mixed, leading to uncertainties among market participants about the near-term prospects for corporate earnings.

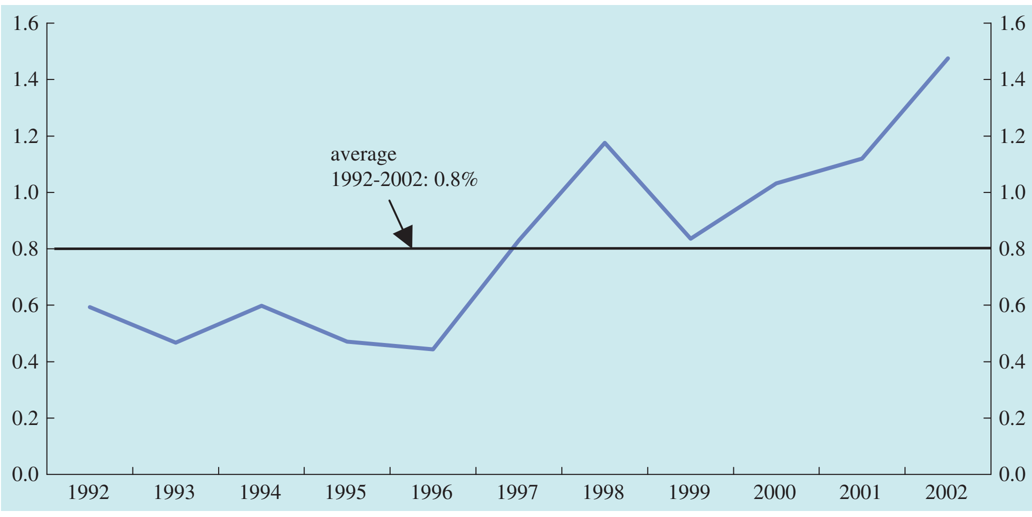
Box 2

Significant increase in stock market volatility in the euro area in 2002

Stock prices in the euro area experienced sharp swings in the course of 2002. Apart from declining substantially, the daily changes in the broad stock price indices in 2002 were generally markedly higher, on average, than in previous years (see Chart A). Although the average size of the absolute daily changes in the broad Dow Jones EURO STOXX index has tended to rise in recent years, it reached an annual average of 1.5% in 2002, almost double that of around 0.8% over the period 1992-2002. This box identifies some of the global and euro area-specific factors that may help explain the pronounced turbulence in the stock markets, as reflected in the high volatility of stock prices in the euro area in 2002.

Chart A: Average annual size of the absolute daily change in the Dow Jones EURO STOXX index, 1992-2002

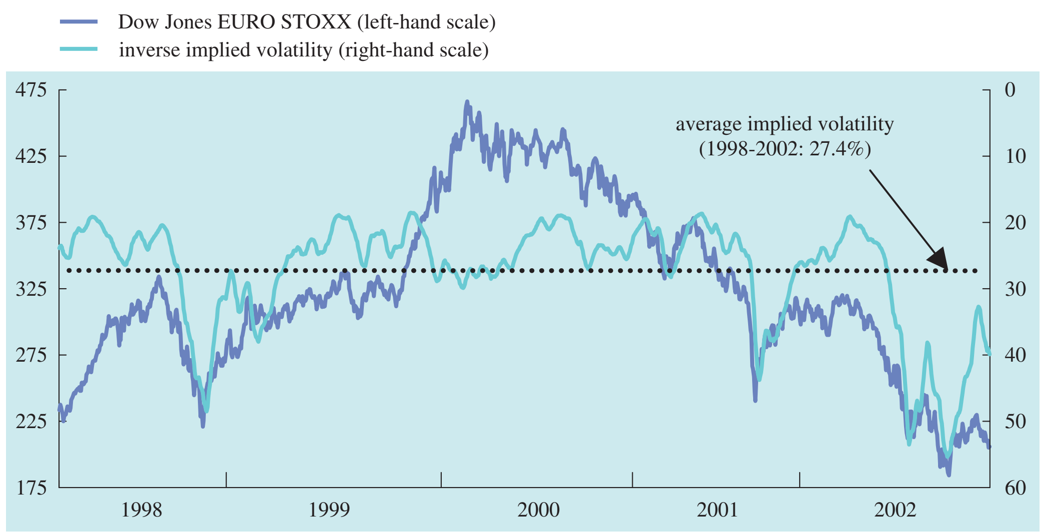
(%)



Persistently high implied volatility in 2002

The degree of turbulence in stock markets is often inferred from the implied volatility derived from options on stock price indices, which – to some extent – contains information on market participants' collective opinion about the uncertainty surrounding the near-term outlook for stock prices. Viewed both from a euro area historical perspective and from a cross-country perspective, stock market uncertainty, as indicated by implied volatility in the euro area stock markets, was exceptionally high in 2002. It averaged 35%, compared with an average of 27% since 1998, while it also surpassed the levels seen in both the United States and Japan in 2002 (see Chart 8 (b)).

Chart B: Dow Jones EURO STOXX index and inverse implied stock market volatility, 1998-2002



Both global and domestic factors contributed to higher volatility

In early 2002, conditions in global equity markets gradually became less volatile as markets settled down after the events of 11 September 2001. After mid-May, however, a series of adverse effects led to heightened uncertainty about possible future trends in financial markets and caused volatility to surge in most major stock markets. Some of the factors that gave rise to this development, such as concerns about accounting irregularities and the reliability of corporate earnings data, geopolitical risks and downward revisions to economic growth forecasts, were of a global nature.

Other factors more specific to the euro area may partly explain why uncertainty was especially high in this region in 2002. First of all, stock market volatility often tends to be higher when stock prices are falling than when they are rising (see Chart B). This is typically explained by a "leverage effect", whereby – given that a corporation's debt level is fixed in the short term – a falling equity price tends to raise the debt/equity ratio of firms, i.e. the leverage.[1] An increase in the leverage of a corporation reduces its capital buffer to fluctuations in income and, hence, its future earnings tend to be more uncertain. As a result, the stock price becomes more volatile. As the decline in stock prices in the euro area in 2002 was sharper than in other markets, the overall level of volatility in stock prices in the euro area was thus accentuated in comparison with other economic

1) See, for example, Black, F. (1976), "Studies of Stock Price Volatility Changes", Proceedings of the meeting of the American Statistical Association.

regions. Moreover, the telecommunications sector had become heavily indebted in recent years, primarily as a result of acquisitions of UMTS licences, thereby reinforcing the leverage effect.

In addition, as a result of the large losses on their equity holdings, many European banks and insurance companies rebalanced their portfolios by adjusting their equity weightings downwards in the course of 2002. These considerable shifts of funds from the stock markets to other segments of the capital markets (e.g. the bond markets) over a relatively short period of time are likely to have contributed to higher volatility in euro area stock markets.

Another explanatory factor behind the relatively high volatility in the euro area stock markets could be the fact that the stock price decline in 2002 was more broadly based than in other major markets, implying a higher positive correlation across sectors. This may have given rise to a higher volatility level of the general stock market index.

All in all, while global factors seemed to trigger a surge in euro area stock market volatility through the uncovering of some structural weaknesses and vulnerabilities specific to certain euro area sectors, the drop in global stock markets had a magnified impact in the euro area. As a result, the swings endured in euro area stock prices, particularly in the second half of 2002, were outside the bounds of recent historical experience.

Overall decline in money market rates in the course of 2002

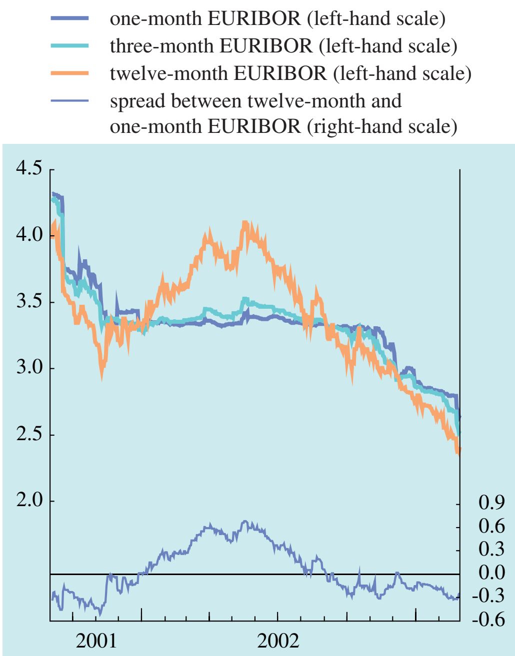
Money market rates increased in the first five months of 2002, continuing the trend which started in late 2001. In mid-May this trend came to a halt, and money market rates gradually decreased throughout the second half of 2002. The evolution of money market rates reflected market participants' expectations for future short-term money market rates. In the first five months of 2002 market participants expected an increase in future short-term interest rates. These expectations gradually adjusted downwards in line with expectations regarding the economic outlook and inflation, and eventually, in the last quarter of the year market participants expected a decrease in future short-term money market rates, largely anticipating the 50 basis point reduction in the key ECB interest rates decided at the Governing Council meeting on 5 December 2002, the only change of the year. At the end of 2002 the slope of the money market yield curve, as measured by the difference between the twelve-month and one-month EURIBOR, was slightly negative.

Turning to a more detailed analysis, during the last few months of 2001 money market rates declined significantly, especially

Chart 9

Short-term interest rates in the euro area and the slope of the money market yield curve

(percentages per annum; percentage points; daily data)



Source: Reuters.

following the events of 11 September and the subsequent reduction in the key ECB interest rates, as expectations of a decline in inflationary pressures stemming from the worsened outlook for the global economy became widespread. However, around the turn of the year, this movement started to be reversed, as pessimism subsided and market expectations gradually shifted towards an economic recovery and an emergence of upward risks to price stability. Between late 2001 and mid-May 2002, therefore, money market rates increased. The rise in money market rates was most pronounced at the longer maturities (see Chart 9). Consequently, the slope of the money market yield curve, which was virtually flat at the beginning of 2002, increased substantially in the first few months of the year and reached around 70 basis points in mid-May.

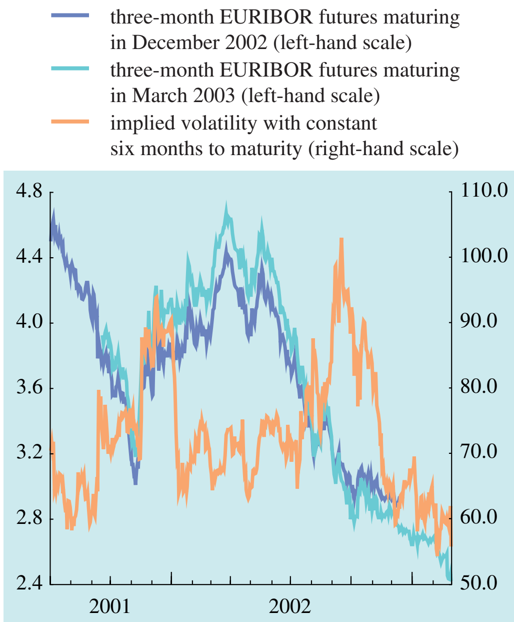
The changes in the expected future path of short-term money market rates in this period were also evident in the evolution of the implied three-month EURIBOR futures rates on contracts with delivery dates in 2002 and early 2003, which increased by around 100 basis points between late 2001 and mid-May 2002. In the same period the uncertainty market participants attached to future short-term interest rates remained broadly stable at relatively low levels, as measured by the implied volatility derived from options on three-month EURIBOR futures contracts (see Chart 10).

The upward trend in money market rates during the first five months of 2002 reversed in late May, after which the rates gradually decreased until the end of the year. Between the end of May and the beginning of September the money market yield curve, as measured by the difference between the twelve-month and one-month EURIBOR, became virtually flat following a decline in money market rates at the longer maturities. At the same time uncertainty in the market rose significantly. In mid-September the money market yield curve then inverted gradually, accompanied by a significant reduction in implied volatility, as market

Chart 10

Three-month EURIBOR futures rates and implied volatility from options on three-month EURIBOR futures

(percentages per annum; basis points; daily data)



Sources: Bloomberg, Reuters and ECB calculations.

expectations of a reduction in the key ECB interest rates firmed.

At the end of 2002 the one-month and twelve-month EURIBOR stood at 2.90% and 2.75% respectively, 43 and 59 basis points lower than at the end of 2001, and implied volatility had fallen back to previous low levels. In the first two months of 2003 both money market rates and EURIBOR futures rates fell further.

In the course of 2002 the level of the overnight interest rate, as measured by the EONIA, reflected the pattern of the minimum bid rate in the main refinancing operations of the Eurosystem. Volatility in 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. In addition, the EONIA tended to increase somewhat on the last trading day of each month, in response to financial institutions' desire to adjust their balance sheets at those times. As in previous years, this occurred most markedly at the turn of the year. In early January 2002 the EONIA remained somewhat higher than the minimum bid rate. This was due to relatively tight liquidity conditions caused by the euro cash changeover, given stronger than expected demand for euro banknotes and the slower than expected return of national banknotes via credit institutions to the national central banks. In this situation, the Eurosystem conducted two fine-tuning operations in early January 2002 to provide counterparties with liquidity. These operations helped to restore more normal market conditions and the EONIA gradually declined again to stabilise at a level slightly above the minimum bid rate. A fine-tuning operation was also conducted on 18 December 2002 to provide counterparties with liquidity following underbidding in the main refinancing operation conducted on 17 December and tight liquidity conditions (see Chapter 2).

Long-term bond yields reached low levels in 2002, partly reflecting "flight-to-safety" portfolio shifts

After changing little in 2001, government bond yields in the euro area and the United States declined in the course of 2002. Most of the decline occurred between mid-May and early October and the main factor influencing bond market developments during this period appears to have been turbulence in stock markets which prompted flight-to-safety portfolio shifts to bond markets. All in all, ten-year government bond yields in the euro area and the United States declined by 90 and 130 basis points respectively in 2002 and stood at around 4.3% and 3.8% at the end of the year (see Chart 11 (a)). The more pronounced declines in US government bond yields brought the differential between US and euro area ten-year bond yields into negative territory for most of 2002, after hovering around zero during 2001 (see Chart 11(b)).

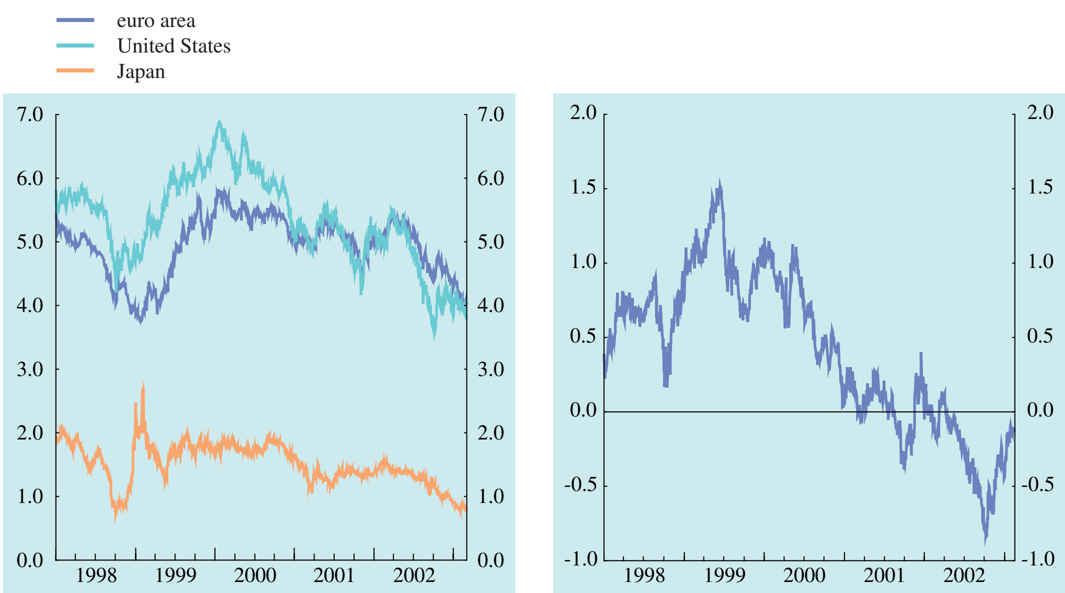
Chart 11

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

(percentages per annum; daily data)

(b) Long-term government bond yield 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.

In the United States, government bond yields edged up slightly in the first few months of 2002 as market participants became more optimistic about growth prospects following the pessimism that had prevailed in the aftermath of the events of 11 September 2001. Contributing to this reassessment were the cuts in the federal funds rate, which was down to 1.75% by the beginning of 2002, its lowest level since 1961. Thereafter, as market participants appeared to see brighter economic growth prospects ahead, the yield curve steepened, somewhat driven by long-term bond yields. There were also some indications in the first few months of the year that market participants' long-term inflation expectations had risen. This was reflected, for instance, in a rise in the break-even inflation rate as measured by the difference between the yields on ten-year US nominal government bonds and those on ten-year index-linked bonds issued by the US Treasury.

Optimistic growth expectations among market participants subsequently waned after mid-May, and bond yields fell when "flight-to-safety" shifts from stock markets into bond markets took place, partly triggered by the discovery of a series of accounting irregularities among US corporations. Rising tensions in the Middle East and weaker than expected economic data also contributed to the decline in bond yields. Furthermore, the hedging strategies of US housing agencies may have amplified the downward trend that brought ten-year nominal bond yields in early October down to the lowest levels seen since 1958. After mid-October bond yields edged up again as tensions in the equity market abated and investors shifted funds back into the stock market in an environment where macroeconomic and corporate earnings data raised optimism about future growth prospects. The decision of the Federal Open Market Committee to lower the federal funds rate by 50 basis points to 1.25% on 6 November further fuelled this optimism.

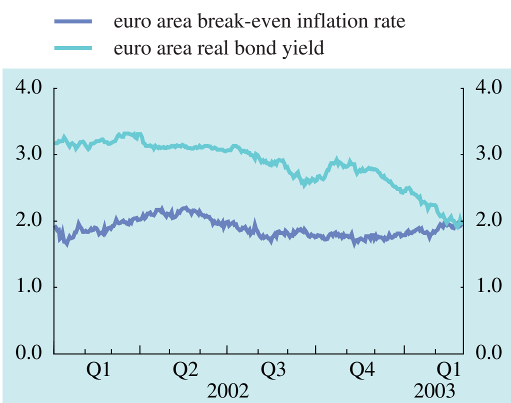
In Japan, developments in long-term government bond yields were, to a large extent, decoupled from global developments in 2002. After remaining relatively stable during the first half of 2002 at around 1.4%, ten-year bond yields declined more or less continuously thereafter and stood at about 0.9% at the end of 2002. Market concerns related to the economic outlook and the domestic banking system as well as flight-to-safety portfolio shifts from stock markets to bond markets all contributed to bringing long-term bond yields lower during the year.

In the euro area, bond market developments mirrored, to a large extent, those in the United States during 2002, although the overall decline in euro area bond yields was less pronounced. As in the United States, in the first few months of 2002 market participants became gradually more optimistic about growth prospects, pushing long-term bond yields somewhat higher. At the same time, long-term inflation expectations among market participants increased. Reflecting this, the break-even inflation rate, calculated as the differential between euro area ten-year nominal bond yields and ten-year index-linked bond yields (indexed on the euro area HICP excluding tobacco), rose by around 30 basis

Chart 12

Euro area real interest rate and break-even inflation rate calculated for the euro area HICP

(in percentages; daily data)



Sources: Reuters, French Treasury and ISMA.
Note: The euro area real bond yields are derived from the market prices of French government bonds which are indexed to the euro area HICP (excluding tobacco prices) and which mature in 2012. The methods used to compute the break-even inflation rate were outlined on page 16 of the February 2002 issue of the Monthly Bulletin.

points between end-December 2001 and mid-May 2002 (see Chart 12).

Later in the year, less favourable macroeconomic data releases as well as falling stock prices contributed to lower economic growth expectations among market participants. Renewed pessimism about growth prospects put downward pressure on ten-year euro area bond yields between mid-May and October, leading to a flattening of the yield curve, while euro area ten-year index-linked bond yields and the associated break-even inflation rate also declined. Downward pressure on yields also came from the US corporate accounting scandals, which caused market participants to question underlying profit performances in the euro area. This raised the risk premia demanded by investors to hold stocks and prompted "flight-to-safety" shifts from stock markets to the bond markets. At the same time, market participants' uncertainty about future movements in euro area bond yields also rose, as reflected by increases in implied bond market volatility. From October, by contrast with developments in the United States where bond yields rose, bond yields in the euro area showed an unclear trend in an environment of mixed signals from economic data releases.

In the corporate bond markets of both the euro area and the United States, the differentials between yields of long-term corporate bonds issued by BBB-rated corporations and yields on government bonds with comparable maturities were subject to relatively large swings in the course of 2002, mirroring developments in implied stock market volatility. In particular, the differentials did not follow any clear trend during the first few months of 2002, in an environment where optimism grew among market participants about the economic outlook facing both the euro area and the United States. Later on, however, corporate bond spreads widened when market participants became concerned about the reliability of the financial disclosures made by corporations, particularly in the United States but also in the euro area. However, as these concerns seemed to wane in the last quarter of 2002, corporate bond spreads fell again in the two economies close to the levels prevailing at the start of the year, partly as a result of some stabilisation in stock markets.

In early 2003, long-term bond yields in the euro area continued to decline overall, even though bond yields changed little in the United States. Between the end of December 2002 and 28 February 2003, ten-year government bond yields in the euro area fell by about 30 basis points to 4.0%, while yields on ten-year US Treasuries declined only slightly during the same period. As a result, the differential between ten-year government bond yields in the United States and those in the euro area narrowed by 20 basis points to -20 basis points on 28 February 2003.

Retail bank interest rates declined overall in 2002

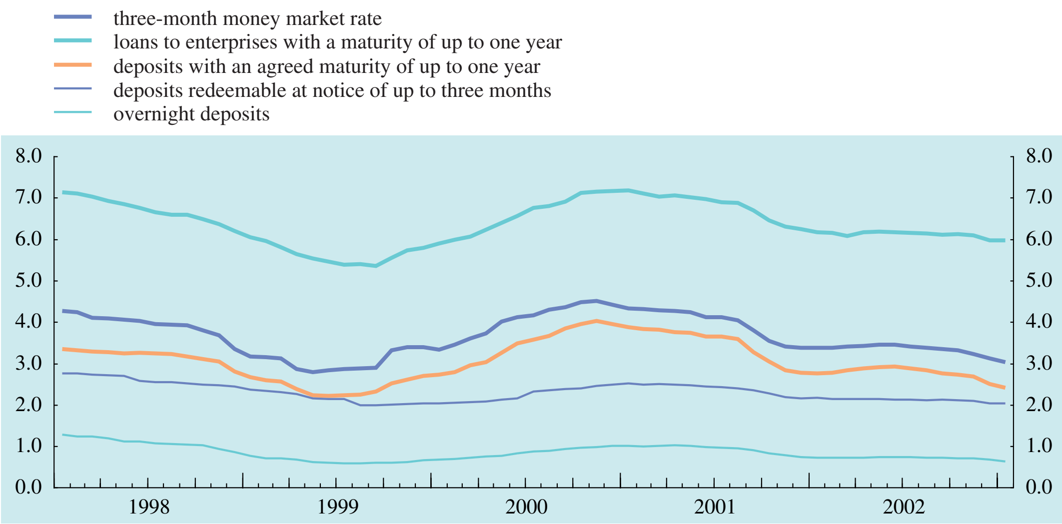
Short-term retail bank interest rates fell in 2002 in an environment where money market rates showed limited fluctuations. Between end-2001 and end-2002 three-month money market interest rates declined by 40 basis points. Over the same period, the rates for overnight deposits and short-term savings deposits (deposits redeemable at a period of notice of up to three months) declined by around 10 basis points, while the rate on deposits with an agreed maturity of up to one year declined by almost 30 basis points, in line with the typically weak pass-through of market rates to these rates. As regards short-term lending rates, retail rates for loans to enterprises with maturities of up to one year declined by almost the same amount as three-month money market interest rates (see Chart 13).

Long-term retail bank interest rates increased steadily until May 2002 and declined thereafter, generally ending 2002 at levels lower than at the end of 2001 (see Chart 14). These patterns broadly mirrored the

Chart 13

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

(percentages per annum; monthly averages)



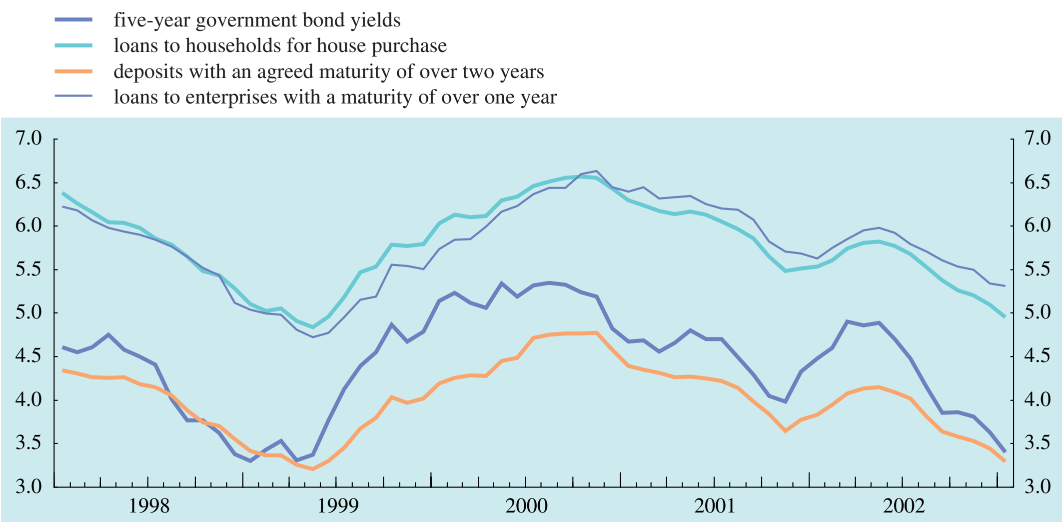
Sources: ECB and Reuters.
Note: From 1 January 2001, data include Greece.

movements in market interest rates. The five-year government bond yield, to which some long-term retail bank rates are the most closely linked, first rose by almost 60 basis points from end-2001 until May 2002 and then declined by almost 130 basis points by the end of 2002. 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 first rose by some 30 basis points before declining by about 70 basis points over the same period. The smaller movements in long-term retail bank interest rates reflected the

Chart 14

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.

usual lags in the pass-through process from market interest rates.

In the period after May 2002 there was a rather more sluggish adjustment of some long-term bank lending rates, notably to enterprises, in line with the declines in market interest rates. This may have been linked to growing concerns about creditworthiness in an environment where bankruptcy rates rose. As Box 3 shows, rising credit risk, indicated by a widening of corporate bond spreads, is typically associated with higher spreads of bank lending rates over market rates. In particular, the differential between the yields on BBB-rated corporate bonds and government bonds with comparable maturities rose from about 190 basis points to around 220 basis points between May and December, with a peak of about 260 basis points in October.

Following the reduction in the key ECB interest rates in early December 2002 and subsequent falls in money market interest rates, short-term retail bank deposit interest rates declined slightly in January 2003, although short-term lending rates changed little. Long-term retail bank interest rates continued the trend that started after May 2002, declining further in January 2003.

Box 3

The determination of bank lending rates in the euro area

Several factors may play a role in determining bank lending rates, for instance the administrative cost of effectively changing bank interest rates and bank-customer relationships. Bank-specific characteristics, such as the interplay between bank profitability and refinancing conditions, may also play an important role in the determination of bank lending rates.[1] This box focuses on three determinants of bank lending rates. First, bank lending rates tend to be driven by developments in money and capital markets, either because banks have to refinance themselves in these markets or because most of their deposit rates need to mirror trends in these markets in order to attract funds. As a consequence, there is typically a close relationship between bank lending and market interest rates with comparable maturities. For instance, the interest rate on loans to households for house purchase has historically tended to move in tandem with five-year government bond yields (see Chart 14). The second determinant of bank lending rates considered here is the degree of prevailing competitive forces within different segments of the bank credit market. Banks need to set rates at competitive levels in order to attract customers, and their power to influence rates depends very much on the availability of alternative sources of funds for bank customers. The third factor considered is the (expected) exposure of a bank to credit risk when it grants a loan.

Sticky short-term adjustment of bank lending rates to market interest rate developments

Interest rate movements in the money and other financial markets, which are the main market-based sources of funds for MFIs to subsequently grant loans, are a key determinant of bank lending rates. Past experience has shown that euro area bank lending rates tend to react with a delay to market interest rate developments.[2] The proportion of a change in the market interest rate that is passed through within one month to bank lending rates is often found to be less than 50%. In the long term, however, bank lending rates generally adjust one-to-one to market interest rate developments. It is also of interest to note that the speed at which bank lending rates in the euro area ultimately adjust to changes in market interest rates seems to have picked up since the launch of the single currency. The only exception to this probably relates to the adjustment speed of the interest rate on consumer credit, for which the bank lending rate continues to react rather stickily to market developments.

1 *M. A. Weth, (2002), "The pass-through from market interest rates to bank lending rates in Germany", Discussion Paper 11/02, Economic Research Centre of the Deutsche Bundesbank.*

2 *G. de Bondt, (2002), "Retail bank interest rate pass-through: new evidence at the euro area level", ECB Working Paper No. 136; F. Heinemann and M. Schüler, (2002), "Integration benefits on EU retail credit markets – evidence from interest rate pass-through", Zentrum für Europäische Wirtschaftsforschung; and S. Kleimeier and H. Sander, (2002), "Consumer credit rates in the eurozone: evidence on the emergence of a single retail banking market", European Credit Research Institute, Research Report 2.*

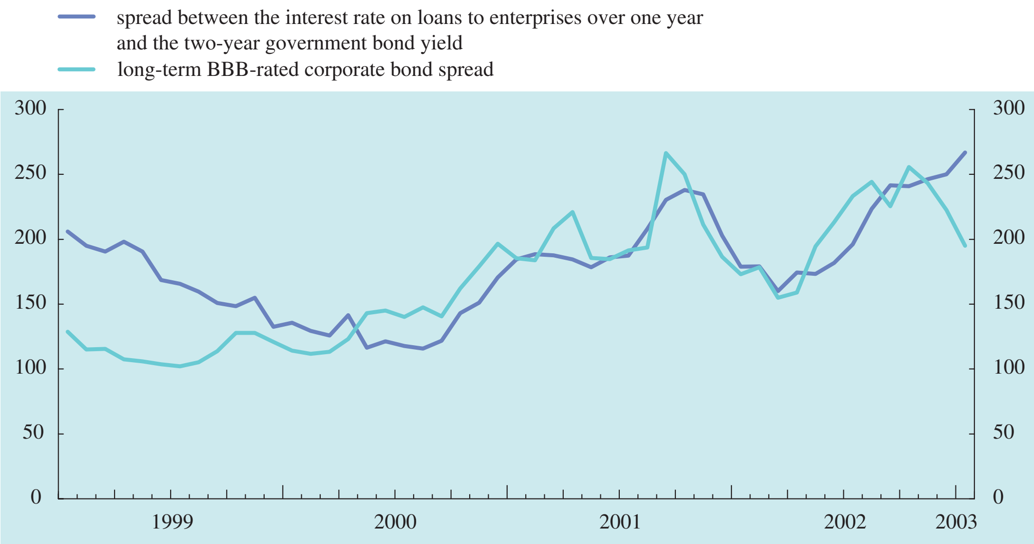
More competitive markets in recent years

Prevailing competitive forces in most segments of the bank credit market seem to have increased in recent years, both from a supply and from a demand perspective. This tendency towards more intense competition may be one factor underlying the observed speeding-up of the adjustment of bank lending rates to changes in market interest rates, which are a rough proxy for the marginal funding costs of bank loans, since 1999. As regards the supply side, the ongoing restructuring of the banking sector seems to have promoted higher efficiency in the banking markets and more competitive pricing. In addition, notwithstanding the steady decline in the number of credit institutions, new (foreign) players have become active in the retail bank credit market. Euro area banks also face more and more competition from other financial intermediaries such as insurance companies and pension funds.[3]

Turning to the demand side, there are also indications that competition has increased as bank customers have become more sensitive to the interest rates on bank loans compared with those charged by other banks and by financial markets. This may be related to the higher stability of nominal interest rates in an environment of price stability, which facilitates the comparison of prices across different suppliers, and to an increase in the availability of alternative non-bank sources of finance, at least for some enterprises. For example, the commercial paper and corporate bond markets in the euro area have become more deep and liquid in recent years. Obviously, as indicated above, competition may differ considerably across different segments of the bank lending market. While competition seems to be relatively high for household mortgages, the uncollateralised consumer credit market seems to be less competitive.

Corporate bank lending and bond spreads in the euro area

(basis points; monthly averages)



Sources: Bloomberg, ECB and Reuters.

Note: Corporate bond spreads are calculated as the difference between seven to ten-year corporate bond yields and seven to ten-year government bond yields.

Rising credit risk concerns in 2002

The level of and movements in the spread between bank lending rates and comparable market interest rates are also determined by credit risk considerations. As the chart above shows, since 2000 the spread between the

3 *ECB, (2002), "Report on Financial Structures".*

interest rate on long-term loans to enterprises and a market interest rate with a comparable maturity has moved more or less in tandem with the spread between yields on long-term BBB-rated corporate bonds and government bonds with a comparable maturity. The latter spread can provide an indication of the degree of the prevailing corporate credit risk as viewed by corporate bond market participants. The chart above also suggests that credit risk concerns rose in 2002, as illustrated by the increase in the spread between the interest rate on loans to enterprises over one year and the two-year government bond yield.

The aforementioned determinants of bank lending rates all seem to have played some role in 2002. While bank lending rates in the euro area adjusted in 2002 to market interest rate developments, among other factors, it is clear that the speed and degree of pass-through has been affected by rising credit risk concerns in certain segments of the credit market.

3 Price developments

Average annual inflation in 2002 somewhat lower than in 2001

The average annual HICP inflation rate in 2002 was 2.2%, which is 0.2 percentage point lower than in 2001 (see Table 6). Meanwhile, for the same period, the average increase in the HICP excluding unprocessed food and energy rose from 2.0% to 2.5%. Hence, the lower average rate of HICP inflation in 2002 is explained by lower annual increases in the more volatile unprocessed food and energy components. In January 2003, the year-on-year rates of change in the HICP and the HICP excluding unprocessed food and energy declined to 2.2% and 2.0% respectively, which is 0.1 and 0.2 percentage point lower than in December 2002.

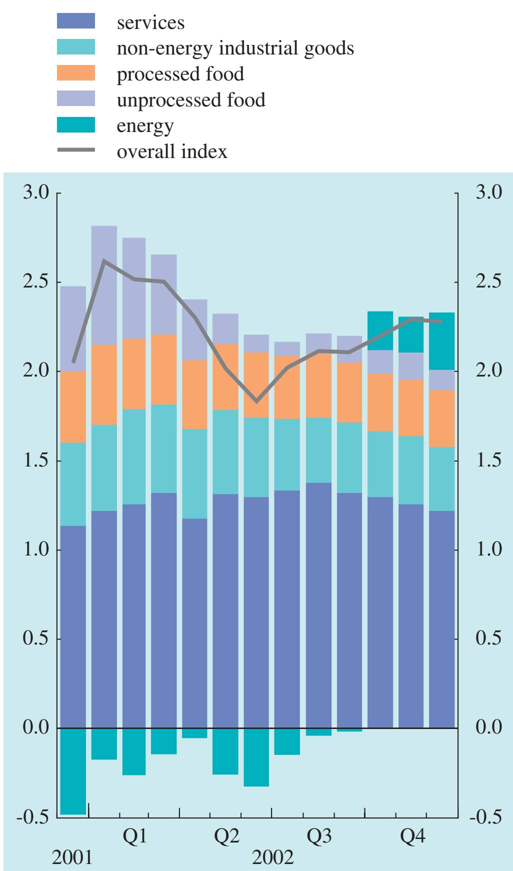
Developments in headline inflation in 2002 mainly reflected short-term movements in unprocessed food and energy prices

Overall HICP inflation in the euro area was rather erratic in 2002, mainly reflecting short-term movements in its more volatile components. After a sharp increase in January 2002, HICP inflation declined until June, when it started to increase again, reaching 2.3% in December 2002 (see Chart 15). The increase in inflation in January 2002 reflected a number of factors, such as higher unprocessed food and energy prices, base effects and increases in indirect taxation and administered prices. In particular, unfavourable weather conditions exerted upward pressure on vegetable and fruit prices. By contrast, during the following

Chart 15

Contributions to euro area HICP inflation from sub-components

(annual percentage point contributions; monthly data)



Source: Eurostat.

Table 6

Price and cost developments in the euro area

(annual percentage changes, unless otherwise indicated)

	2000	2001	2002	2001 Q1	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2002 Dec.	2003 Jan.
Harmonised Index of Consumer Prices (HICP) and its components													
Overall index	2.1	2.4	2.2	2.1	3.0	2.4	2.2	2.5	2.1	2.1	2.3	2.3	2.2
of which:													
Goods	2.5	2.3	1.6	2.1	3.2	2.2	1.6	2.1	1.4	1.3	1.8	1.9	1.6
Food	1.4	4.4	3.1	3.2	4.9	5.1	4.7	4.9	2.9	2.3	2.3	2.2	1.4
Processed food	1.2	2.8	3.1	1.8	2.6	3.3	3.4	3.5	3.2	3.0	2.7	2.7	2.8
Unprocessed food	1.8	7.0	3.1	5.3	8.3	7.8	6.6	7.0	2.4	1.4	1.7	1.4	-0.6
Industrial goods	3.0	1.2	0.9	1.5	2.4	0.8	0.2	0.8	0.7	0.8	1.5	1.7	1.8
Non-energy industrial goods	0.5	0.9	1.4	0.2	1.2	0.8	1.5	1.7	1.6	1.3	1.2	1.2	0.6
Energy	13.1	2.3	-0.6	6.6	6.8	0.8	-4.3	-2.1	-2.3	-0.7	2.8	3.8	6.0
Services	1.5	2.7	3.1	2.2	2.6	2.7	3.0	3.1	3.1	3.3	3.1	3.0	2.8
Other price and cost indicators													
Industrial producer prices 1)	5.5	2.2	-0.1	4.5	3.6	1.5	-0.8	-0.8	-0.8	-0.1	1.2	1.5	.
Unit labour costs 2)	1.3	2.6	.	2.1	2.7	2.5	3.3	3.5	2.4	2.0	.	-	-
Labour productivity 2)	1.3	0.0	.	0.4	0.0	0.1	-0.4	-0.4	0.2	0.6	.	-	-
Compensation per employee 2)	2.6	2.7	.	2.5	2.8	2.6	2.9	3.1	2.6	2.6	.	-	-
Total hourly labour costs 3)	3.3	3.4	.	3.4	3.0	3.7	3.4	3.9	3.5	3.6	.	-	-
Oil prices (EUR per barrel) 4)	31.0	27.8	26.5	28.4	31.7	29.0	22.4	24.6	27.8	27.2	26.5	27.1	28.3
Commodity prices 5)	16.7	-7.6	-1.7	-0.8	-3.0	-10.5	-15.6	-3.6	-5.5	-1.6	4.4	2.1	-2.3

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.

months unprocessed food prices were the main contributor to the decline in the annual rate of inflation, as the weather-related effects started to unwind. Furthermore, inflationary pressures stemming from meat prices declined during this period, as the upward price effects associated with the cases of animal diseases (foot-and-mouth disease and BSE) attenuated further.

Energy prices also contributed slightly to this decline in inflation during the first half of 2002. In the second half of the year, however, energy prices were the main factor behind the increase in overall inflation, reflecting not only base effects but also some upward pressure on world oil prices towards the end of the year.

HICP inflation excluding its more volatile components exhibited persistence in 2002

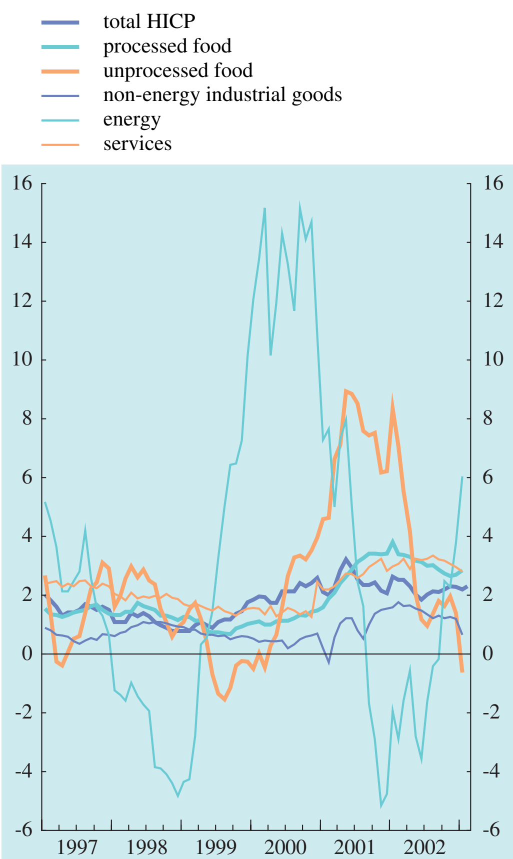
In spite of the relatively subdued demand conditions in the euro area, the decline in the year-on-year rate of change in the HICP excluding the more volatile unprocessed food and energy components was rather limited in the course of 2002. This was partly related to the indirect effects of the past oil and food price shocks and to the earlier depreciation of the euro exchange rate. In addition, for certain individual components (mainly services) at the disaggregated level, price increases were observed which could be associated with the introduction of the euro banknotes and coins (see Box 4). Notwithstanding these factors, it appears that the persistently high year-on-year rate of change, particularly for services prices, can also be explained by more fundamental factors such as developments in unit labour costs.

The year-on-year rate of change in services prices stood at or above 2.9% throughout the year (see Chart 16), with an average increase in 2002 of 3.1%, up from 2.7% in 2001. The other main components of the HICP excluding its more volatile items, processed food and non-energy industrial goods prices, also increased on average at a higher rate in 2002 than in 2001. However, in contrast to services prices, the year-on-year rates of increase in these components declined during 2002. Hence, the persistence in annual HICP inflation excluding unprocessed food and energy was mostly explained by services prices.

Chart 16

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.

Inflation differentials among euro area countries broadly unchanged in 2002

Inflation developments in individual euro area countries varied somewhat in 2002 reflecting, inter alia, the differing impact of energy and food price shocks, differences in unit labour cost developments and changes in administered prices and indirect taxes. Overall, however, the dispersion was broadly unchanged in 2002 compared with 2001.

Perceptions of past inflation rose, while consumers' inflation expectations fell

Despite a decline in the actual rate of inflation in the course of 2002, the general public's perceptions of past inflation increased throughout the year. For instance, the European Commission's indicator of perceived inflation over the past 12 months followed a steady upward trend (see Chart C in Box 4). Consequently, the difference between actual and perceived inflation reached unprecedented levels. It appears that the high levels of perceived inflation are associated to some extent with the price rises for specific items, mainly services, partly as a result of the introduction of the euro banknotes and coins. (Box 4 presents the effects of the euro cash changeover on prices in more detail.)

By contrast, consumers' expectations of inflation declined during most of 2002, which suggests that consumers expected that most of the price increases that took place in the course of the year would be transitory. This is consistent with the view that the annual inflation rate was affected by a number of one-off factors – ranging from increases in indirect taxation to base effects – throughout 2002. It is worth noting that, in February 2003, the indicator of perceived inflation declined significantly. It is too early to assess, however, whether this drop represents a lasting break in the upward movement seen in this measure over the last year.

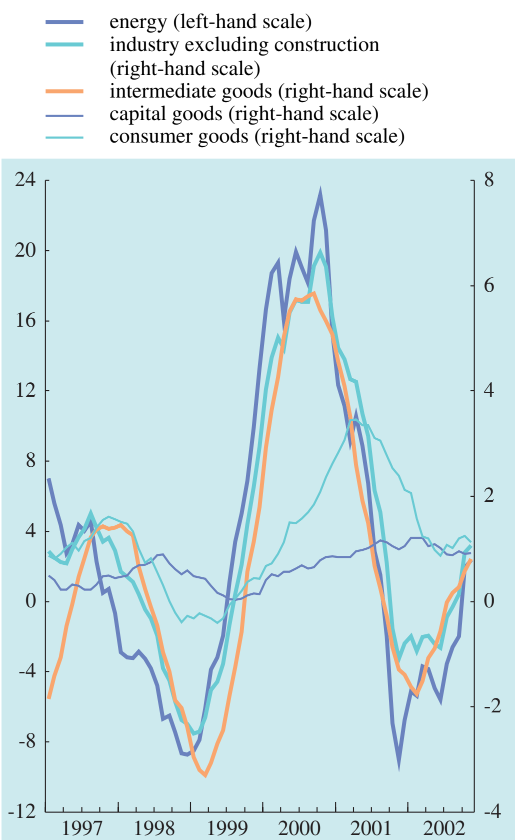
Prices at earlier stages of the production chain remained subdued in 2002

The industrial producer price index (excluding construction) declined, on average, by 0.1% in 2002, compared with an increase of 2.2% in 2001. This decline is mostly explained by developments in the energy component, and to a lesser extent by developments in the intermediate and consumer goods components (see Chart 17). The average annual rate of increase in producer prices excluding energy and construction was 0.6%, down from 1.8% in 2001. The subdued price developments at the earlier stages of the production chain partly reflect only small import price increases as a result of the appreciation of the euro in 2002. Moreover, demand conditions remained relatively weak throughout the year, which in turn prevented industrial firms from raising prices.

Chart 17

Breakdown of industrial producer prices in the euro area

(annual percentage changes; monthly data)



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

The energy component of industrial producer prices declined by 2.4% in 2002 compared with an increase of 2.8% in 2001. Although average oil prices in US dollars were broadly unchanged in 2002 compared with the previous year, measured in euro they declined by some 5%. The fall in energy producer prices in 2002 was therefore almost entirely explained by the strengthening of the euro against the US dollar. Lower annual rates of change in intermediate and consumer goods prices also contributed to the decrease in overall producer price inflation. The decline in consumer goods inflation reflected lower price increases for both durables and non-durables. The average annual increase in capital goods prices in 2002 was 1.0%, unchanged from 2001.

Annual growth in compensation per employee broadly unchanged in 2002, despite labour market weakness

Since 1999 there has been a gradual upward movement in the rates of growth of almost all euro area-wide labour cost and wage indicators. This upward movement continued in 2001 and early 2002, despite the weakening of economic activity and an increase in unemployment.

The annual growth rate of compensation per employee averaged 2.8% during the first three quarters of 2002, slightly higher than in 2001 (see Chart 18). In addition, the year-on-year increases in both total hourly labour costs and gross monthly earnings were higher during the first three quarters of 2002 than in 2001. However, available country data do not signal a further acceleration in labour costs towards the end of 2002, a view which

Box 4

Effects of the introduction of the euro banknotes and coins on consumer prices

More than a year has passed since, on 1 January 2002, the euro banknotes and coins were introduced and all prices in the euro area were converted into euro. In many euro area countries, this changeover was perceived by consumers to have led to sizeable price increases. This box summarises the evidence concerning the effects of the euro changeover on prices and reviews the possible reasons why consumers have perceived the euro to be a source of price pressure. It is argued that the effects will be mainly transitory and that, over a longer period of time, the greater cross-border price transparency should increase competition and contain price pressures.

Some prices seem to have been strongly affected by the cash changeover, but the overall impact has been more limited

A number of different approaches have been taken when evaluating the effects of the transition of prices from the legacy currencies to the euro: analyses of aggregated price developments, studies of a number of basic price series for selected goods and services, and surveys on firms' pricing strategies during the changeover. The differences between these approaches make it difficult to compare the results. Moreover, the results should be used only as a general indication of the overall effect, since it is very difficult to isolate pure cash changeover effects from other sources of price pressure, such as an increase in indirect taxation, administered prices, wages or import prices. In spite of this note of caution, most studies have drawn the same main conclusion: the introduction of the euro did not lead to widespread price increases. To take an example, a study by Eurostat, released in July 2002, based on six months of euro area HICP data, suggested that the impact of the introduction of euro banknotes and coins on euro area inflation in the first half of 2002 most likely fell within a range of 0.0 to 0.2 percentage point. The upward impact on prices could either be due to a pass-through of cash changeover-related costs from companies to consumers or a bundling together of price changes. Moreover, companies may have rounded to new attractive prices in euro or attempted to increase their profit margins.[1]

The impact of the changeover may have varied across countries; for example in France, the effect on the national CPI has been estimated at 0.2 percentage point, while in the Netherlands it possibly led to a 0.6 percentage point increase in CPI inflation.[2] The cross-country differences might be related to different degrees of competition in local markets (also related to the relative importance of small versus large retailers), and the variations in the demand situation in the respective countries.

From the available data, it appears that the price effects were mainly concentrated in specific areas of the services sector, which was also noted by many consumers. In particular, prices charged for services items, such as restaurant and café services, hairdressing and dry cleaning, seem to have risen noticeably in all euro area countries following the introduction of euro cash. The price increases of a number of these HICP items were exceptionally strong in the course of 2002, compared with average developments in previous years. In January 2002, for example, the month-on-month increase in prices charged by restaurants and cafés in the euro area, with a weight of 6.7% in the euro area HICP in 2002, was more than three times higher than the average increase in the same month during the period 1996-2001 (see Chart A). Similar price movements were noted for hairdressing (HICP weight of 1.1%, see Chart B) and other services items. For most of these items, price increases in the euro area were also rather high compared with those in non-euro area EU countries. While the above-average price increases could theoretically also be due to reasons other than the changeover, it is difficult to trace them to other factors.

1 *For a further explanation of these price effects see Box 3 of the ECB's Annual Report 2001.*
2 *See "The short-term impact on prices of the euro cash changeover", Banque de France Bulletin Digest, September 2002, and "Getting used to the euro", De Nederlandsche Bank Quarterly Bulletin, September 2002.*

Chart A: Prices charged by restaurants and cafés
(monthly percentage change)

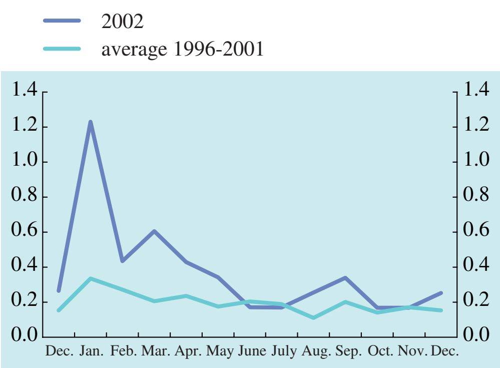
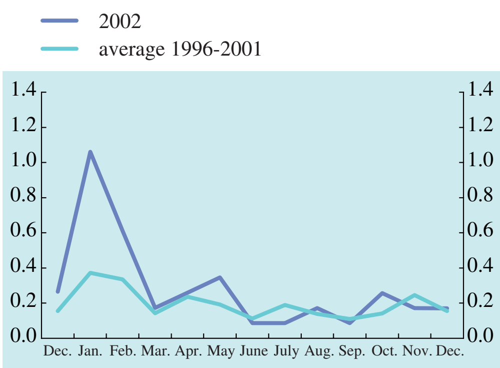


Chart B: Prices charged by hairdressers
(monthly percentage change)



Sources: Eurostat and ECB calculations.

With regard to goods prices, which account for close to 60% of private consumption expenditure in the euro area, overall they do not seem to have been greatly affected by the changeover. However, the changeover may have led to price increases for some "small ticket goods" across countries, which are frequently purchased by private households, such as bakery products and newspapers. Owing to their low price level, any rounding effect can be rather strong in terms of percentage changes. By contrast, for higher-value goods, particularly durable consumer goods, there seems to have been a tendency towards the downward rounding of prices related to technical progress and rather strong competition in these markets.

While the price dynamics of the items apparently affected by the cash changeover continued to be strong for several months in 2002, they appear to have mostly normalised or even become weaker in recent months. This suggests that the effect on inflation will only be temporary, although there may still be some further effects as the adjustment to new attractive euro prices does not yet seem to have finished.[3] In addition, some persistence may be expected in countries where forms of wage indexation are still in place. In the long term, there should not be any permanent effects once consumption behaviour has adapted to the new price structure. On the contrary, the euro is expected to have a constraining effect on price increases, since it will bring greater price transparency and competition in the euro area. Moreover, these benefits will be of a permanent nature.

Increases in consumers' perception of inflation

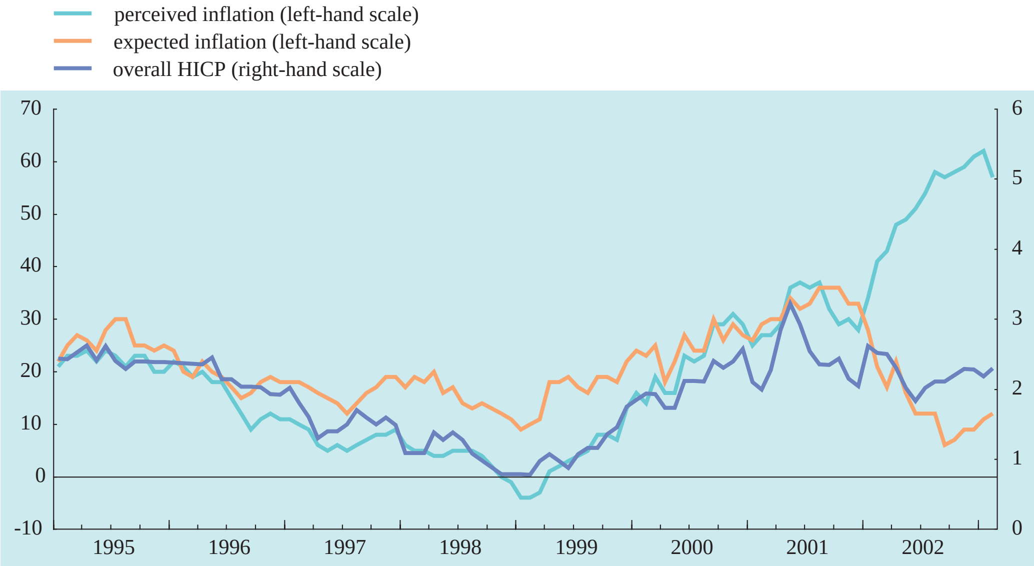
The empirical findings on changeover effects are in stark contrast to the overall impression of euro area consumers. According to the European Commission's November 2002 Eurobarometer, more than 80% of euro area consumers think that the conversion of prices into euro was associated with significant price increases. This is reflected in a significant increase in the European Commission's indicator of perceived inflation, starting in January 2002 and continuing throughout the year (see Chart C). This development, which was common across most euro area countries, differed starkly from actual HICP inflation, which declined over the same period, leading to an increasing gap between perceived and actual inflation.

One explanation for the gap between perceived and actual developments could be that consumers attach great importance to price developments in the specific goods and services that they buy more frequently, while they are less aware of price developments of "big ticket items", such as durable goods, which are purchased less frequently. There is evidence that, in some cases, the transition from national to euro prices was indeed connected with high price increases, something which was the focus of media and consumer attention. Prices

3 *See, for example, "Consumer prices and the changeover from Deutsche Mark to euro", Deutsche Bundesbank Monthly Bulletin, July 2002.*

Chart C: Perceived, expected and overall HICP inflation

(percentage balance and annual percentage changes; monthly data)



Sources: European Commission Business and Consumers Surveys and Eurostat.
Notes: The European Commission's indicators of perceived and expected inflation take the form of balance statistics, and cannot be directly related to the magnitude of the actual rate of inflation. For periods prior to 2001, HICP data do not include Greece.

of some of the items bought on a day-to-day basis, such as vegetables, also significantly increased at the beginning of 2002. While factors other than the cash changeover, such as bad weather conditions, largely explain these price increases, the public also seems to have associated these price increases with the cash changeover. Although the annual rates of change in many of these items started to decline in the second quarter of 2002, the indicator of perceived inflation continued to increase.

The question therefore remains as to how to explain the persistence of the gap between perceived and actual inflation. One possible factor seems to be the unfamiliarity of consumers with euro prices. Rule-of-thumb calculations when comparing new euro prices with old national currency prices may also be relevant for understanding inflation perceptions in some countries. Moreover, there is evidence that the diversity of prices for a single product significantly increased following the euro cash changeover. This increased number of different prices may have generated some confusion among consumers, who possibly need more time to adjust to the new pricing patterns.[4] Overall, while many factors can serve to explain the continued high rate of perceived inflation, most of them would suggest that this is only a temporary phenomenon, which is also indicated by the significant decline in inflation expectations during most of 2002 (see also Chart C).

On the whole, while consumers have pointed out extreme price increases in the context of the euro cash changeover, these appear to have mainly been outliers of a very limited overall importance. In this regard, consumers play an important role in signalling their unwillingness to pay for some specific goods for which there have clearly been unjustified price increases. Moreover, the goods and services affected by the changeover only represent a relatively small share of the overall basket of goods and services of the HICP index. Consequently, only a rather limited part of HICP inflation in the euro area could possibly be attributed to the euro cash changeover in 2002. These effects on HICP inflation will be mainly transitory and the greater cross-border price transparency arising from the changeover to the euro should, over a longer period of time, increase competition and contain price pressures.

4 *See, for example, "The adaptation of prices to the changeover to the euro", Nationale Bank van België/Banque Nationale de Belgique, www.nbb.be.*

is confirmed by developments in the annual growth rate of negotiated wages, which declined during the second half of 2002.

Compared with the previous year, the annual increase in labour productivity was slightly higher, on average, during the first three quarters of 2002, although it remained at a low level. Reflecting cyclical movements, labour productivity growth recovered in the second and third quarters of 2002, after two quarters of negative annual growth. As a result, unit labour cost growth for the whole euro area economy fell from 3.5% year on year in the first quarter to 2.4% in the second and 2.0% in the third. Profit mark-up developments, as proxied by the gap between the annual rates of growth in the GDP deflator and unit labour costs, indicate that the slowdown in activity had some negative impact on profits. However, the cyclical pick-up in productivity growth observed in the course of 2002 has reduced unit labour cost growth and, consequently, downward pressures on mark-ups.

Chart 18

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

(annual percentage changes; quarterly data)

Sources: Eurostat.
Note: Data refer to the Euro 12 (including periods prior to 2001); whole economy.

4 Output, demand and labour market developments

Subdued economic activity in 2002

Despite positive signs at the beginning of the year, weak economic conditions continued to prevail in 2002. The incipient recovery at the start of 2002 failed to gather momentum and quarterly real GDP growth rates remained throughout the year at levels below those consistent with euro area potential growth. In the last quarter of the year, renewed signs of weakness emerged, as quarterly real GDP growth decreased to a low level. Overall, average annual real GDP growth decreased to 0.8% in 2002, from 1.4% in 2001, reflecting the negative carry-over effect from 2001, combined with moderate quarterly growth rates in the course of 2002 (see Table 7).

In a context of protracted slow growth since the end of 2000, which contributed to a sizeable contraction in capital formation, spare capacity remained modest in 2002. The rate of capacity utilisation in the manufacturing sector in 2002 was, on average, close to its long-term mean, while the unemployment rate only increased modestly and remained below the level recorded in 2000.

Low economic growth in 2002 resulted from a clustering of adverse shocks which contributed towards an increase in uncertainty and reduced expectations of a rapid recovery. Geopolitical tensions, which adversely affected oil prices and confidence, the sharp fall in equity prices and the

Table 7

Composition of real GDP growth in the euro area

(percentage changes, unless otherwise indicated; seasonally adjusted)

	Annual rates [1]								Quarterly rates [2]				
	2000	2001	2002	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4
Real gross domestic product	3.5	1.4	0.8	0.5	0.3	0.6	0.9	1.3	-0.2	0.4	0.3	0.4	0.2
of which:													
Domestic demand	2.9	0.9	0.2	0.0	-0.2	-0.1	0.4	0.8	0.0	0.0	0.2	0.2	0.4
Private consumption	2.5	1.8	0.6	1.6	0.5	0.4	0.6	1.0	0.0	-0.2	0.4	0.4	0.4
Government consumption	2.0	2.1	2.5	1.6	2.0	2.6	2.7	2.6	0.6	0.7	0.9	0.3	0.5
Gross fixed capital formation	4.9	-0.6	-2.5	-2.5	-2.5	-3.2	-2.6	-1.8	-0.9	-0.2	-1.3	-0.2	-0.1
Changes in inventories [3), 4)]	0.0	-0.4	-0.1	-0.7	-0.3	-0.2	0.0	0.1	0.0	0.0	0.1	0.0	0.1
Net exports [3]	0.6	0.5	0.6	0.5	0.5	0.8	0.5	0.5	-0.2	0.4	0.1	0.2	-0.2
Exports [5]	12.6	2.8	1.2	-2.8	-2.4	0.6	2.7	4.1	-1.2	0.2	1.7	2.1	0.0
Imports [5]	11.3	1.5	-0.3	-4.1	-3.9	-1.5	1.5	3.0	-0.8	-1.0	1.5	1.8	0.6
Real gross value added													
of which:													
Industry excl. construction	4.0	1.1	0.2	-1.5	-1.8	0.1	0.7	1.7	-1.3	0.9	0.6	0.5	-0.4
Construction	2.4	-0.6	-1.5	-0.6	-0.6	-1.6	-1.8	-2.0	0.0	-0.7	-1.0	-0.1	-0.2
Market-related services [6]	4.8	2.6	1.3	1.7	1.3	1.2	1.2	1.5	0.1	0.3	0.5	0.3	0.4

Sources: Eurostat and ECB calculations.
1) *Percentage change compared with the same period a year earlier.*
2) *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.*

resilience of global imbalances contributed to attenuating the strength of economic activity in the course of the year.

In a weak economic environment, the implementation of the planned structural reforms is important, as it should raise confidence in future economic and employment growth. In this regard, Box 5 reviews the progress made with the EU's reform agenda.

Weaker contribution from domestic demand accounted for a further slowdown of annual real GDP growth in 2002

Compared with 2001, lower annual average real GDP growth in 2002 was accounted for by a weaker contribution from domestic demand to economic activity. Subdued domestic demand was caused by a significant retrenchment of capital spending, only partially offset by moderate growth in private consumption.

Gross fixed capital formation decreased by 2.5% on average in 2002, contracting for the second consecutive year (see Table 7). The decline in investment could be associated with a number of factors. First, the prospects for a robust recovery in the euro area diminished in the course of the year, leading firms to adjust their investment plans downwards. Second, the profitability of the corporate sector has been adversely affected by the economic slowdown. Pricing behaviour targeted at preserving export market shares while the euro was appreciating may also have exerted downward pressure on corporate profits. Third, the sharp declines in equity prices in 2002 implied higher costs of raising new equity capital, which in turn may have negatively affected investment spending. Fourth, increasing corporate bond spreads and long-term retail lending rate spreads might also have implied tighter financing conditions despite low interest rates (see Box 3). Finally, lower real household income growth and higher uncertainty have also had a negative impact on housing investment. Housing investment is estimated to have decreased by around 2% in 2002.

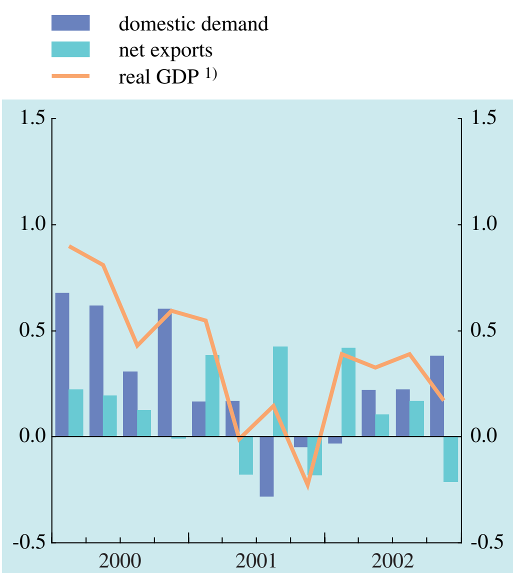
In 2002 private consumption was negatively affected by weak economic conditions and high uncertainty. Overall, private consumption grew by 0.6% on average for the year (see Table 7). More specifically, household real disposable income is estimated to have increased less significantly in 2002 than in 2001, mainly as a result of lower employment growth. The impact on income of lower employment growth was partially offset by a slight increase in real wage growth in 2002, resulting essentially from somewhat lower inflation. The contribution of net public transfers, taxes and social contributions to household income growth is estimated to have remained relatively unchanged from 2001 to 2002.

The household saving ratio is estimated to have increased in 2002. At the start of 2002 the higher saving ratio was associated with the events of 11 September 2001 and, to a

Chart 19

Contributions to quarterly real GDP growth in the euro area

(quarterly percentage point contributions; seasonally adjusted)



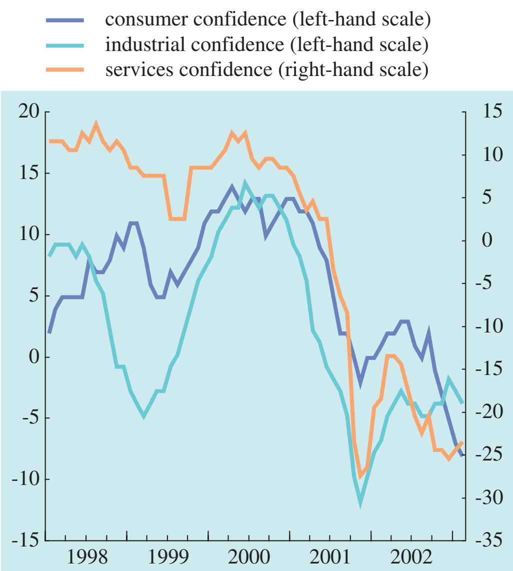
Sources: Eurostat and ECB calculations.

1) Percentage change compared with the previous quarter.

Chart 20

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.

lesser extent, with the euro cash changeover which gave rise to an increase in consumers' perceived inflation (see Box 4) and a decrease in the willingness of households to make major purchases. Later in 2002, the sharp fall in share prices exerted further upward pressure on the saving ratio by reducing household wealth and adversely affecting confidence (see Chart 20). However, the negative impact on households' net worth from lower share prices might have been partially offset by increases in residential property prices in some parts of the euro area. Furthermore, high geopolitical tensions and the gradual deterioration of labour market conditions may also have led households to increase precautionary savings.

Inventory changes did not contribute to real GDP growth in 2002, while net exports contributed positively

Following a strongly negative contribution from inventory changes in 2001, stocks did not contribute, on average, to real GDP growth in 2002. An improvement in business expectations at the beginning of the year brought an end to an extended period of inventory depletion. However, in the second half of the year, the disappointing pace of economic activity led firms to adjust downwards their desired levels of stocks, thereby preventing inventory changes from making a significant contribution to real GDP growth.

In 2002 annual average growth of both real imports and exports of goods and services (including intra-euro area trade) decreased further, to -0.3% and 1.2% respectively. This partly reflects the marked contraction in trade volumes in the second half of 2001, which led to a significant negative carry-over effect into 2002. However, an upturn in trade volumes was observed around mid-year. Exports gained momentum, supported by an increase in world demand. Imports also strengthened around mid-2002. In the final quarter of the year, both import and export growth weakened, while the net trade contribution turned negative. On average in 2002, the net export contribution to economic activity was significant owing to the contraction in import volumes.

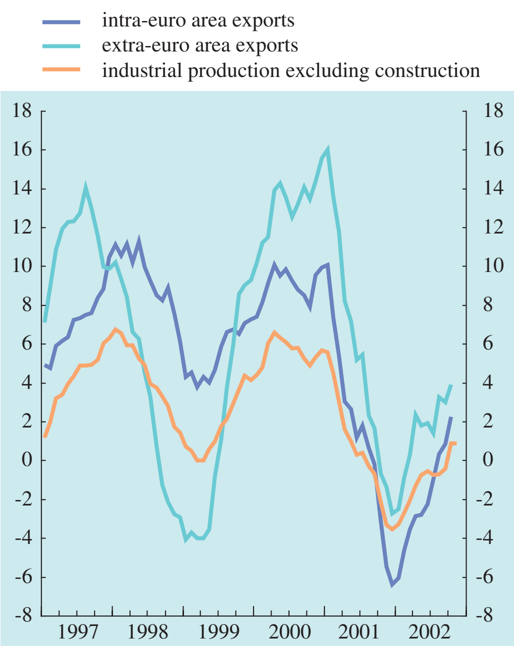
Services sector remained the driving force behind economic activity in 2002

Based on national accounts data, value added in industry excluding construction increased slightly in 2002, by 0.2%. Weak growth in 2002 stemmed mainly from the negative carry-over effect from 2001, while activity in industry recovered in the first half of the year (see Table 7). According to industrial production data, the recovery at the beginning of the year was initiated by intermediate goods production (see Table 8), in conjunction with the turnaround in the inventory cycle and foreign demand (see Chart 21). In the second half of 2002 industrial activity lost some momentum, reflecting the deterioration of current and prospective economic developments,

Chart 21

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.

although year-on-year growth rates continued to increase owing to favourable base effects stemming from low activity in the second half of 2001. Construction output, as measured by real value added, contracted by 1.5% in 2002. The weakness in construction activity resulted largely from the continued adverse developments in Germany. The deterioration in the overall economic climate in the euro area and high uncertainty were also important factors.

By contrast, value added in the services sector continued to grow in 2002, albeit at a slower pace than in 2001. Activity in market-related services increased by 1.3% (see Table 7), remaining the main driving force for overall economic growth in 2002. Quarterly growth rates in value added in this sector remained broadly unchanged throughout the year.

Degree of dispersion of real GDP growth rates among euro area countries declined in 2002

The degree of dispersion of real GDP growth rates among euro area countries fell in 2002. The spread between the two countries with the highest and lowest growth rates fell to 4.1 percentage points, down from 5.0 percentage points in 2001. Annual average

Table 8

Industrial production in the euro area

(percentage changes)

	Annual rates [1]								Quarterly rates [2]				
	2000	2001	2002	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4
Total industry excl. construction	5.5	0.4	-0.7	-3.6	-2.7	-0.6	-0.5	0.9	-1.8	0.6	0.6	-0.1	-0.1
by main industrial groupings:													
Total industry excl. construction and energy	6.0	0.2	-0.9	-4.7	-3.2	-0.9	-0.8	1.2	-2.3	0.9	0.5	0.0	-0.2
Intermediate goods	5.9	-0.8	0.3	-6.0	-2.1	0.3	0.7	2.3	-2.6	2.3	0.7	0.2	-0.9
Capital goods	9.4	1.3	-2.6	-4.9	-6.7	-2.7	-1.9	1.0	-2.5	-0.6	0.8	0.2	0.3
Consumer goods	2.2	0.4	-1.0	-2.6	-1.2	-0.9	-1.9	-0.1	-2.0	0.3	0.2	-0.5	-0.1
Durable	6.5	-2.5	-4.9	-7.4	-6.7	-5.8	-3.9	-3.0	-3.7	-0.5	-0.9	0.6	-2.4
Non-durable	1.4	1.0	-0.2	-1.5	-0.1	0.1	-1.5	0.5	-1.7	0.5	0.4	-0.6	0.3
Energy	1.9	1.2	0.7	3.5	1.2	2.1	0.7	-1.0	1.9	-1.6	1.1	-0.5	0.2
Manufacturing	5.9	0.2	-1.0	-4.6	-3.4	-1.0	-0.7	1.2	-2.3	0.8	0.6	0.0	-0.2

Sources: Eurostat and ECB calculations.
1) Percentage change compared with the same period a year earlier calculated using data adjusted for variations in the number of working days.
2) Percentage change compared with the previous quarter calculated using seasonally and working day adjusted data.

real GDP growth declined in all euro area countries, except Finland. The weakness seen in 2002 implied low annual average real GDP growth rates in several countries. Indeed, a group of countries barely saw a rise in real GDP in 2002.

Further slowdown of employment growth in 2002

The impact of the economic slowdown gradually fed through to labour markets in 2002 and quarter-on-quarter growth rates of total employment became negative in the second half of the year. On the basis of available national data, total employment growth is estimated to have been 0.4% in 2002 against 1.4% in the previous year. Compared with past economic slowdowns in the 1990s, employment growth in the euro area continued to be relatively resilient for a large part of 2002. This could be partly explained by the fact that, in early 2002, many companies expected the slowdown to be short-lived. However, as activity remained weak, the situation in the labour market weakened in the second half of the year (see Table 9).

With regard to sectoral developments in 2002, year-on-year employment growth became negative in the industrial sectors (i.e. both construction and industry excluding construction), while net job creation continued in the services sector. Employment in the services sector nevertheless underwent a marked slowdown compared with 2001. In particular, in finance and business services, the driving force of net job creation in services in recent years, employment growth in 2002 was less than half that of 2001. Other market-related services (i.e. trade, transport and communications) also experienced a noticeable, albeit less pronounced, slowdown in employment growth.

Gradual increase in unemployment in 2002

In line with the slowdown in employment growth, the euro area standardised rate of unemployment gradually increased throughout 2002 to an average of 8.3% for the year as a whole, i.e. 0.3 percentage point higher than in 2001 (see Chart 22). After four consecutive years of decline, the number of unemployed in the euro area increased to an average of 11.4 million in 2002.

Table 9

Labour market developments in the euro area

(annual percentage changes and percentages)

	Annual changes									Quarterly changes				
	1999	2000	2001	2002	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2001 Q4	2002 Q1	2002 Q2	2002 Q3	2002 Q4
Labour force	0.9	1.0	0.9	.	0.7	0.8	0.8	0.7	.	0.3	0.2	0.2	0.1	.
Employment	1.8	2.1	1.4	.	0.9	0.7	0.5	0.3	.	0.2	0.1	0.0	-0.1	.
Agriculture [1]	-2.4	-1.6	-0.8	.	-1.6	-2.3	-1.9	-1.9	.	-0.5	-0.4	-0.2	-0.9	.
Industry [2]	0.3	0.9	0.3	.	-0.4	-1.0	-1.0	-1.2	.	-0.2	-0.4	-0.2	-0.4	.
– excl. construction	-0.2	0.6	0.3	.	-0.5	-1.1	-1.1	-1.2	.	-0.2	-0.4	-0.2	-0.4	.
– construction	2.0	1.7	0.3	.	-0.2	-0.6	-0.7	-1.3	.	-0.2	-0.3	-0.1	-0.7	.
Services [3]	2.7	2.9	2.0	.	1.6	1.6	1.3	1.0	.	0.4	0.3	0.1	0.2	.
Rates of unemployment [4]														
Total	9.4	8.5	8.0	8.3	8.0	8.1	8.2	8.3	8.5	-	-	-	-	-
Under 25 years	18.5	16.6	15.6	16.1	15.7	15.8	16.1	16.2	16.3	-	-	-	-	-
25 years and over	8.2	7.4	7.0	7.3	7.0	7.1	7.2	7.3	7.4	-	-	-	-	-

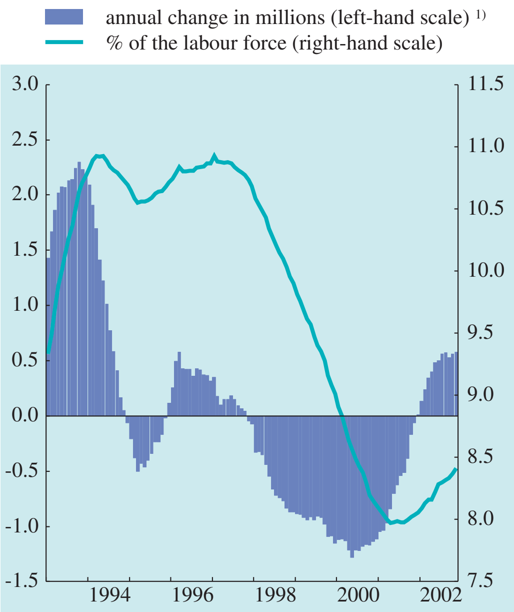
Sources: National data and ECB calculations for labour force data; Eurostat for employment and unemployment data.
1) Also includes fishing, hunting and forestry.
2) Includes manufacturing, construction, mining and quarrying, and electricity, gas and water supply.
3) Excludes extra-territorial bodies and organisations.
4) Percentage of the labour force according to ILO recommendations.

All age and gender groups appear to have been affected by rising unemployment. The youth unemployment rate increased to 16.1% in 2002, i.e. 0.5 percentage point higher than in 2001, while the unemployment rate for those aged 25 and above rose from 7.0% in 2001 to 7.3% in 2002. The unemployment gap between the younger and the older age groups thus remained broadly unchanged in 2002, compared with 2001. Moreover, while both men and women have been affected by rising unemployment, the gap between the average male unemployment rate (7.2% in 2002) and the female rate (9.8% in 2002) continued to narrow gradually throughout the year. This suggests that groups that are traditionally more strongly affected by labour market deterioration (namely the young and women) do not appear to have suffered relatively more from this economic downturn, particularly when compared with past slowdowns in the 1990s. The increase in unemployment was common to most euro area countries and the degree of dispersion across euro area countries remained broadly unchanged.

Chart 22

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.

Finally, the growth of the labour force (i.e. the sum of all employed and unemployed people) is estimated to have slowed slightly in 2002. This reflects the protracted weak growth in activity and the increase in unemployment which tended to discourage entry into the labour force.

In sum, although employment growth in the euro area remained relatively resilient up to the second half of 2002, there was a gradual deterioration in labour markets, largely reflecting the lagged impact of weaker economic activity. These developments draw particular attention to the need for continued efforts in implementing labour market reforms and gearing wage developments towards supporting employment growth in order to achieve better labour market performance and to better mitigate the effect of cyclical downturns (see Box 5).

Box 5

Limited progress with structural reforms in euro area product and labour markets

Structural reforms in product and labour markets enhance the economic growth potential and facilitate the adjustment to economic change. In March 2000, the Lisbon European Council recognised the importance of modernising the regulatory framework and introduced an ambitious reform agenda aimed at making the European Union the most competitive and dynamic knowledge-based economy in the world by 2010. Since then, the economic environment has weakened considerably. Determined action to implement the "Lisbon agenda" has become all the more important to bolster economic confidence and to improve the framework conditions for economic activity and employment growth. Against this background, this box briefly reviews the progress made in implementing the EU's reform agenda over recent years and, in particular, in 2002. This assessment is broadly in line with the European Commission's view set out in its report on the implementation of the 2002 Broad Economic Policy Guidelines (BEPGs).

The functioning of product markets is monitored and evaluated as part of the Cardiff process, whereas labour market reform is assessed within the Luxembourg process. Both processes rely on country examinations of reforms and provide input into the BEPGs, which define overarching policy priorities for various fields of economic policy. Policy recommendations for each EU Member State are derived based on these priorities (see Chapter V).[1]

In the field of labour markets, the 2002 BEPGs stress the need: (i) to adapt tax and benefit systems to make work pay and to encourage the search for jobs; (ii) to improve the efficiency and effectiveness of active labour market policies; (iii) to bring down obstacles to geographical mobility within and between Member States; (iv) to facilitate occupational mobility; (v) to promote more flexible organisation of work and review employment contract regulations; and (vi) to remove barriers to female labour force participation.

Several countries have started or continued to implement measures to make work pay or to reduce employers' social security contributions. In addition, efforts to improve the job search process continued with the raising of the efficiency of services provided by employment agencies and the implementation of stricter job search requirements. Several countries continued efforts to enhance the flexibility of work organisation. However, many labour market reforms have hardly been tackled at all. In this regard, for example, comprehensive reforms of pension and early retirement systems aimed at increasing the labour force participation of older workers have not been fostered sufficiently, and reforms of employment protection regulations improving job mobility have received only scant attention. Overall, the pace of labour market reform in 2002 seems to have slowed down in most euro area countries compared with earlier years.

The structural reform agenda for product markets covers a wide range of areas, the following of which were emphasised in the BEPGs for 2002: (i) to fully implement the Internal Market; (ii) to ensure effective competition; and (iii) to accelerate reforms in the network industries. There are still some significant barriers to the functioning of the Internal Market, particularly in services markets. Many of these barriers appear to be due to national regulations, for example administrative procedures for setting up subsidiaries in other euro area countries or the use of discretionary powers by local authorities. Following a decade of continuous improvement, the decline in the percentage of EU Internal Market legislation which Member States have not yet transposed into national laws came to a halt in 2002. This "transposition deficit" in the euro area countries rose from 2.2% in October 2001 to 2.4% in October 2002.

As far as the reinforcement of competition is concerned, some euro area countries took steps to increase the powers of their competition and regulatory authorities. Another instrument which could be used to diminish

1 *Council Recommendation of 21 June 2002 on the broad guidelines of the economic policies of the Member States and the Community.*

distortions to competition is the reduction of state aid. Although the overall trend is towards a reduction in state aid, it still plays a significant role in certain sectors, such as rail and air transport. Regulatory reforms continued to be implemented in network industries, albeit to varying degrees across countries and industries. The effects of reforms in these previously sheltered sectors have become visible in price reductions in some of these sectors, notably telecommunications. This development continued in 2002, although at a slower pace.

To sum up, some progress in reducing structural rigidities in labour and product markets was observed in 2002. However, the approach adopted by many countries seems to have taken the form of partial steps rather than strengthened, comprehensive reform efforts. As it takes time for structural reforms to produce their full benefits, the slow and partial approach of most Member States to structural reform will make it increasingly difficult to achieve the strategic objectives set in the Lisbon agenda. Furthermore, a lack of determination to implement comprehensive reforms may also be a reason for the low level of confidence in a quick economic recovery. This makes greater efforts in the field of structural reform all the more important.

5 Fiscal developments

Deteriorating budget balances in 2002 mainly due to economic slowdown

For the second consecutive year, fiscal balances in the euro area deteriorated in 2002. The latest available data from Eurostat show an average deficit of 2.2% of GDP against 1.6% in 2001 (see Table 10). The marked deterioration, to an average level not seen since 1998, can mainly be attributed to the weakness in economic activity which affected budget results through automatic stabilisers, and to adverse revenue developments in some countries. Furthermore, significant statistical revisions of the 2001 deficit figures, expenditure overruns and tax changes had a negative impact on the 2002 fiscal balances in a number of countries. Nearly all countries failed to meet the budget balances targeted in the stability programmes that were submitted at the end of 2001. These targets were missed by a substantial 1.3% of GDP on average.

Fiscal developments were especially adverse in countries that already had significant fiscal imbalances in 2001. Germany recorded a deficit well above the 3% of GDP reference value in 2002. Excluding UMTS receipts, France registered a 3.2% deficit ratio, while the ratios in Italy and Portugal were not much lower. In November 2002 the ECOFIN Council decided on the existence of an excessive deficit in Portugal in 2001, and in January 2003 decided on an excessive deficit in Germany in 2002. ECOFIN called for measures to end this situation and, also in January 2003, adopted an early warning recommendation for France. In total, nine countries recorded deficits in 2002, against six in the previous year. Only Belgium, Luxembourg and Finland achieved balanced budgets or surpluses.

The euro area ratio of government expenditure to GDP ceased to decline in 2002, for the first time since 1993. The ratio increased by nearly 0.5 percentage point, reflecting, inter alia, higher unemployment expenditure on account of the weak economic environment. Although some overspending was evident in specific categories such as healthcare, no generalised slippage from expenditure targets was discerned. Interest expenditure as a percentage of GDP declined only slightly in 2002. Slow tax revenue growth in 2002 could mainly be accounted for by the weakness in economic activity, since no major tax reforms were introduced. Other factors depressing tax revenue growth were the sizeable tax cuts implemented in previous years and negative effects related to profit and asset price developments.

Table 10

Fiscal positions in the euro area

(as a percentage of GDP)

General government surplus (+) or deficit (-)

	1999	2000	2001	2002
Euro area	**-1.3**	**-1.0**	**-1.6**	**-2.2**
Belgium	-0.5	0.1	0.3	0.0
Germany	-1.5	-1.4	-2.8	-3.6
Greece	-1.8	-1.9	-1.9	-1.2
Spain	-1.2	-0.9	-0.1	-0.1
France	-1.8	-1.4	-1.6	-3.2
Ireland	2.3	4.3	1.1	-0.3
Italy	-1.7	-1.8	-2.6	-2.3
Luxembourg	3.5	6.1	6.4	2.6
Netherlands	0.7	1.5	0.1	-1.1
Austria	-2.3	-1.9	0.3	-0.6
Portugal	-2.8	-3.2	-4.2	-2.7
Finland	2.0	6.9	5.1	4.7

General government gross debt

	1999	2000	2001	2002
Euro area	**72.7**	**70.2**	**69.2**	**69.1**
Belgium	114.9	109.6	108.5	105.4
Germany	61.2	60.2	59.5	60.8
Greece	105.1	106.2	107.0	104.9
Spain	63.1	60.5	56.9	54.0
France	58.5	57.2	56.8	59.1
Ireland	49.3	39.3	36.8	34.0
Italy	114.9	110.6	109.5	106.7
Luxembourg	6.0	5.6	5.6	5.7
Netherlands	63.1	55.8	52.8	52.6
Austria	67.5	66.8	67.3	67.9
Portugal	54.3	53.3	55.6	58.0
Finland	47.0	44.5	43.8	42.7

Sources: Eurostat and the ECB for the euro area aggregates.
Note: Data are based on the ESA 95 and include information available up to 17 March 2003. Budget balances exclude proceeds from the sale of UMTS licences.

The euro area average debt ratio decreased in 2002, by 0.1 percentage point to 69.1% of GDP. Deficit-debt adjustments, which leave the deficit unaffected but have an impact on gross government debt, decreased public indebtedness by 0.2 percentage point of GDP. In Greece and Finland, this factor contributed significantly to slowing down the pace of reduction of the debt ratio. In Belgium, Greece and Italy, the government gross debt ratio remained above 100% of GDP. The debt ratio increased in three of the four countries with high deficits. In Italy, the decrease in the debt ratio was mainly the result of a financial operation producing a substantial one-off effect.

The fiscal stance in the euro area, as measured by the change in the cyclically adjusted primary surplus according to European Commission data, loosened somewhat in 2002, as in 2001. The relaxation was evident in the majority of countries. It was generally a result of revenue shortfalls, but in some countries strong expenditure growth played a prominent role. The fiscal stance was tightened only in Spain, the Netherlands and Portugal.

Sound budgetary positions must remain top priority

According to the stability programmes submitted at the end of 2002 and the beginning of 2003, the euro area deficit will decline by 0.4 percentage point in 2003 to 1.8% of GDP. Only Austria had not submitted an updated stability programme by the end of February 2003. The positive effects of expenditure restraint and the continued fall in interest payments will outweigh the negative effects of modest economic growth rates and some planned tax cuts. In a few countries, the improvement in the budgetary forecasts also stems from a projected strong economic recovery in 2003. The deficits in Germany, France and Portugal are anticipated to decrease but stay close to 3% of GDP in 2003. Balanced budgets are projected for Belgium and Spain, while in Finland a continued fiscal surplus is expected. Other member countries expect to post small to moderate deficits in 2003. In 2004, the average euro area budget deficit is projected to decline, to 1.1% of GDP, aided by a continued economic recovery and budgetary consolidation in the countries with high deficits.

The cyclically adjusted primary balance in the euro area is forecast to improve by around 0.5% of GDP in 2003, and by broadly the same percentage in 2004, based on the calculations of the stability programmes. The euro area average government expenditure ratio is expected to return to its declining path, with announced tax reductions moderate for 2003. Risks to this budgetary outlook come from a more unfavourable macroeconomic environment, expenditure overruns and further tax cuts.

On 7 October 2002 the Eurogroup agreed on a fiscal strategy for countries with remaining fiscal imbalances. It concluded that these countries need to pursue a continuous improvement of the underlying balance (i.e. the balance net of cyclical effects and, considered on a case-by-case basis, one-off measures) by at least 0.5% of GDP per year. Countries with excessive deficits are required to consolidate to a greater extent. All ministers but one agreed that this strategy should already be implemented in the 2003 budgets. Moreover, there was consensus that the adjustment path should be based on realistic economic assumptions and well-specified measures.

Of the countries with remaining deficit imbalances, Greece, France and Italy are not expected to comply with the minimum consolidation requirement in 2003. Germany and Portugal, on the other hand, are expected to reduce their underlying deficits by more than 0.5% of GDP, as required in view of the high level of their deficits, through revenue-raising measures and expenditure containment. Austria showed a re-emerging fiscal imbalance in 2002.

Countries that have already achieved sound budgetary positions should ensure that no new imbalances are introduced. The free operation of automatic stabilisers is appropriate in both economic downturns and upturns. However, a few of these countries saw the return of non-negligible deficits in 2002. This underlines the importance of maintaining budgetary safety margins, especially in view of the sensitivity of fiscal positions to a sudden change in the economic environment.

Compliance with the fiscal rules of the Stability and Growth Pact is conducive to economic stability and as such is a necessary complement of a monetary policy geared to price stability. Furthermore, achieving and preserving sound budgetary positions provides some scope for dealing with the fiscal challenges expected to be posed by population ageing.

Limited progress on structural reform of public finances

Current economic conditions again highlight the need for structural reform of public finances. Although the full benefits of reform can only be reaped over the medium term, public finance reforms at the current juncture would strengthen confidence, thus also supporting economic growth in the shorter run. This will especially be the case if they form part of a comprehensive reform strategy combining spending retrenchment with tax reductions and fiscal consolidation. Budgetary discipline not only supports confidence by ensuring the sustainability of public finances, it also allows the automatic stabilisers to work freely (see Box 6).

Structural reforms on the expenditure side are particularly urgent. Elements to be examined include the provision of public goods and services needed to increase potential output, and measures to decrease disincentives to work generated by income support schemes. Tax reforms also play a key role in improving the functioning of the labour market. In view of the budgetary implications of ageing populations, well-designed expenditure and tax reforms are crucial to increase efficiency and promote economic growth, reduce budget imbalances, ensure the sustainability of public finances in the longer run and alleviate the implicit tax burden on future generations.

No major reduction or restructuring of expenditure in a growth-supportive direction is taking place, tax reforms in 2002 were limited compared with previous years, and the tax reductions foreseen for the subsequent years covered in the stability programmes are gradual. With regard to ageing populations, little headway has been made in implementing measures that contribute to the sustainability of public finances in the longer run. Pension reforms have been partial at most. The introduction and expansion of funded pension schemes alongside and complementary to reform of the pay-as-you-go basic pension schemes is proceeding at a very slow pace. Overall, progress with regard to the growth-supporting role of public finances has remained limited.

Box 6

Public finances and economic stabilisation

Public finances can support economic stability in several ways. First, sustainable public finances are key to ensuring long-term stability, since unsustainable debt and deficit levels undermine growth and eventually force countries to engage in disruptive large-scale adjustments. Second, fiscal policy can contribute to stability in the short term by cushioning cyclical fluctuations. In the absence of any government action, the budget reacts automatically to economic fluctuations, providing a stabilising influence. Compliance with the EU fiscal framework preserves both the stabilising role and the long-term sustainability of public finances.

Automatic fiscal stabilisation via public expenditure and revenue

Automatic fiscal stabilisers stem from certain features of taxation and social transfers as well as the resilience of major government spending components in the face of economic fluctuations. Tax receipts evolve more or less in proportion to economic activity, buoyant in upturns and subdued in downturns. With the exception of unemployment-related outlays, most government expenditure is pre-committed in annual budgets and is broadly unaffected by cyclical fluctuations. Total demand, and thus economic activity, is supported during a slowdown as weaker economic growth leads to lower taxes for households and enterprises. The full benefits from the operation of automatic stabilisers can only be reaped if public finances are sustainable, since economic agents otherwise adjust their behaviour in anticipation of likely future fiscal measures.

Discretionary fiscal policy normally not suitable for short-term demand management

In the past, attempts to manage aggregate demand through discretionary fiscal policy-making have been widespread but often counter-productive. Discretionary measures suffer from implementation lags and are difficult to reverse, and thus often lead to pro-cyclical fiscal policies. By contrast, automatic stabilisers provide timely, symmetrical and foreseeable adjustments, since they are directly linked to the structure of the economy. Discretionary policies are mainly needed to pursue fiscal consolidation and changes in the structure of public finances.

The EU fiscal framework: sustainability and stabilisation

Achieving and preserving sustainable public finances and the stabilising role of fiscal policies are the main objectives of the EU fiscal framework. The provisions of the Treaty oblige Member States to avoid excessive government deficits (Article 104) above a reference value of 3% of GDP for the deficit and 60% for the debt ratio, unless specific conditions apply. The Stability and Growth Pact ensures the stabilising role of public finances within this framework of fiscal discipline. Under the Pact, countries committed themselves to maintaining a budgetary position close to balance or in surplus over the medium term in order that budgetary balances could fluctuate with the economic cycle without risking an excessive deficit. To avoid an inappropriate pro-cyclical policy, the reference values may be breached without resulting in an excessive deficit procedure in the event of a severe recession or exceptional circumstances beyond the control of government.

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

Recovery of world economy remained muted

Following the deceleration in 2001, the world economy began to recover at a moderate pace in early 2002. In annual terms, world real GDP growth is estimated to have increased to 3.1% in 2002, from 2.3% in 2001.

Economic performance worldwide varied greatly. The main driving forces behind the upswing were resilient household demand in the United States, a recovery in non-Japan Asia, mainly driven by exports, and relatively sustained growth in the EU accession countries. However, in the course of 2002 the world recovery lost momentum relative to initial expectations, and its sustainability became more uncertain. The global economic outlook was particularly affected by the volatility of financial markets, reflecting further downward adjustments in stock market valuations as well as increased geopolitical tensions.

The recovery in the United States was more muted than anticipated, and imbalances remained, notably in the household sector and the current account. In Japan, an incipient modest expansion slowed down in the second half of the year, against the background of weakening external demand growth. However, resilient domestic demand in non-Japan Asia supported global growth in the second half of 2002, partly offsetting the impact of a somewhat less dynamic US economy and sluggish activity in Japan.

In the United States, GDP growth amounted to 2.4% in 2002. This compares with only 0.3% in 2001, when the economy contracted in the first three quarters. In line with the recovery, productivity in the non-farm business sector grew rapidly in 2002. The resilience of household spending, based on robust growth in private consumption and residential investment, was a key contributor to GDP growth in 2002. In annual terms private consumption grew by a sizeable 3.1% in the year as a whole, although slowing in the fourth quarter. Consumption of durable goods – and in particular motor vehicles and parts – made an especially large contribution to GDP growth in the summer, spurred by retail financing incentives. An important factor supporting household spending was the effect of tax cuts, boosting growth of disposable income to 5.9% in 2002. Another element of support was a strong housing market, with residential investment benefiting from historically low mortgage rates. This offset to some extent the negative wealth effects associated with the cumulative decline in equity prices. Despite the robustness in consumption growth, there was an increase in the savings ratio in 2002, to 3.9% of disposable income from 2.3% in 2001, which could reflect the heightened uncertainty caused by the turbulence in financial markets and the gradual worsening of the employment outlook.

Business investment, on the other hand, contracted again in 2002, in line with relatively low corporate profitability and some concerns over corporate malfeasance. Growth in government consumption and government investment remained strong throughout 2002, while the inventory contribution to growth was slightly positive for the year as a whole. Concerning trade, growth in import volumes outpaced that in exports considerably during most of 2002. Accordingly, the current account deficit expanded to almost 5% of GDP for the year. Against this background, some of the domestic imbalances that arose in the United States in the late 1990s still remained, while the imbalance vis-à-vis the rest of the world continued to deteriorate (see Box 7).

Consumer price inflation in the United States remained relatively quiescent in 2002, while producer price inflation was negative for most of the year. Despite a steady increase in oil prices, domestic inflationary pressures remained generally subdued in the course of 2002 owing to low capacity utilisation rates and strong productivity growth. Inflation, as measured by the consumer and producer price indices, fell to 1.6% and -1.3% respectively in 2002, down from 2.8% and 2.0% in 2001. Excluding food and energy, consumer price inflation was 2.3% in 2002, down from 2.7% in 2001, while producer price inflation excluding food and energy fell to 0.1% in 2002 from 1.4% in 2001. Interest rates remained at historical lows in 2002. The Federal Open Market Committee (FOMC) of the Federal Reserve System reduced the target for the federal funds rate by 50 basis points in November 2002, to 1.25%, after a cumulative reduction of 425 basis points in 2001. Following this move, the FOMC changed its bias from "weakening" to "balanced". Fiscal policy was markedly expansionary in 2002, with the federal budget balance moving to a deficit of 1.5% of GDP in the fiscal year 2002, from a surplus of 1.3% of GDP in the fiscal year 2001. This resulted most notably from discretionary budgetary measures – in particular an instalment of the tax cuts legislated in mid-2001 and the stimulus packages passed in March 2002 – and, to a lesser extent, from the automatic response of the budget to the business cycle.

In Japan, the economy experienced a mild rebound supported by external demand during the first half of 2002. A robust increase in exports, notably to the emerging Asian economies, translated into a sizeable pick-up in industrial production. The pace of economic expansion slowed down, however, in the second half of the year, as external demand growth moderated and geopolitical uncertainties increased. As a consequence, export growth lost momentum and the contribution of external trade to GDP growth turned negative in the third quarter, rebounding, however, in the fourth quarter. Throughout the year, private investment spending remained relatively weak, partly reflecting continued balance sheet problems and excess capacity in the corporate sector as well as concerns about the economic outlook. Overall the economy expanded by 0.3% in 2002.

Deflationary pressures continued throughout 2002, with the CPI declining on average by 0.9%. Against this background, the Bank of Japan increased its target range for the outstanding balance of the current accounts held at the Bank of Japan by JPY 5 trillion to JPY 15-20 trillion. In addition, it raised the amount of its monthly outright purchases of long-term government bonds to JPY 1.2 trillion. Furthermore, in order to facilitate the resolution of the non-performing loan problem and to secure financial stability, the Bank of Japan published on 11 October a

Box 7

Evolution of US imbalances

The accumulation of household and current account imbalances were a major feature accompanying the sustained period of growth in the United States in the second half of the 1990s. Strong domestic demand, which was the main driving force of the past cycle in the United States, developed at the cost of an increased accumulation of debt, both at a household and a national level. These imbalances were not corrected during the recession in 2001 and are therefore likely to become a burden on the upswing.

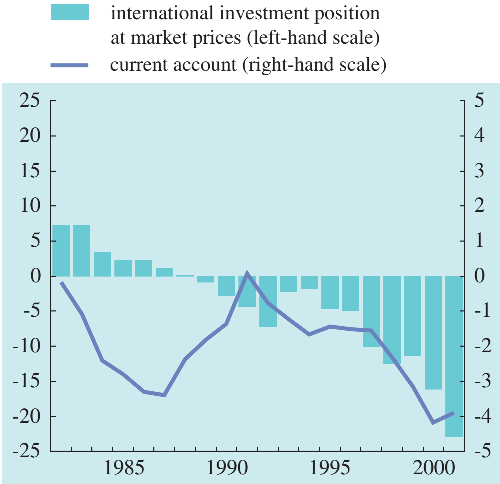
In the past ten years, the extraordinary expansion of the US economy has been accompanied by an increasing deficit in the current account (from 0.8% of GDP in 1992 to 3.9% in 2001 and about 5% in 2002). Contrary to past experience, the US current account did not significantly improve in the wake of the economic downturn in 2001. Indeed, it increased further in 2002, following a short period of small improvement during 2001. The financing structure of the US current account deficit has changed significantly in recent years. While in 1999 and 2000 the inflows were concentrated in the acquisition of private assets, notably equity, from 2001 investor preferences shifted increasingly towards government bonds. This has implications for the sustainability of the current account deficit, as – unlike equity – bond issuance generates repayment obligations. The net liabilities in the international investment position stood at around 25% of GDP in 2001 (see Chart A).

The protracted current account deficit has also significantly increased the dependency of the United States on large continuous capital inflows. It is noteworthy that in the past two years the United States has become almost entirely dependent on bond market inflows as net inflows in foreign direct investment (FDI) and equity portfolio investment have significantly decreased. The financing structure may also have an impact on the pace of a possible correction of the current deficit. Indeed, whereas bond financing generates a pre-determined flow of repayments, income transfers associated with FDI depend to a large extent on economic developments.

The increase in US external debt has been compounded by higher internal indebtedness, mainly related to household debt. Between 1997 and 2001 annual household borrowing in the United States grew more strongly than nominal GDP. It doubled from around USD 300 billion (3.6% of GDP) to USD 600 billion (5.7% of GDP), thereby arriving at new record levels, also in real terms. While household borrowing played a

Chart A: US current account and net international investment position

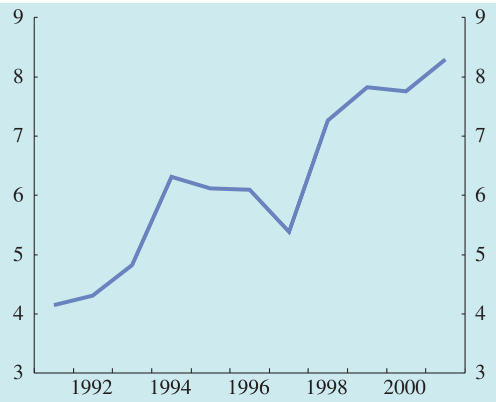
(as a percentage of GDP)



Source: Bureau of Economic Analysis.

Chart B: Household borrowing

(as a percentage of consumption)



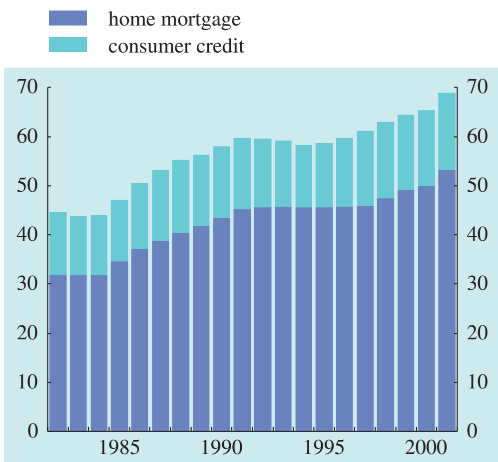
Source: US Federal Government.

prominent role in the resilience of consumption, in particular during 2001, its negative side was a sharp increase in US household debt, to around 70% of GDP in 2001 (see Charts B and C). The debt level for an "average" US household is now close to its annual disposable income, comprising around 75% mortgage debt and 25% consumer credit.

Consequently, the household debt service burden, defined as the ratio of households' required debt payments (interest payments and debt redemption) to their disposable personal income, has risen considerably in recent years. It reached around 14% in the third quarter of 2002, despite a strong decline in interest rates, returning to the previous cyclical peak it attained in the mid-1980s. Higher borrowing – together with the decline in financial asset prices – also contributed to the decline in household net wealth (including both financial and real estate assets) in terms of disposable income, which fell from a peak of more than 600% at the end of 1999 to 365% in the third quarter of 2002.

Chart C: Household debt

(as a percentage of GDP)



Source: US Federal Government.

In conclusion, domestic and external imbalances have not been significantly reduced during the recent slowdown in the US economy. In particular, the current account deficit as a percentage of GDP deteriorated in 2002 by almost 1 percentage point relative to 2001. Moreover, the strong increase in household borrowing and the decline in household net wealth in the United States during the past two years have raised concerns about the strength and the robustness of the recovery. The extent of domestic and external indebtedness has significantly increased the vulnerability of the US economy to shocks, such as a decline in investor confidence or a sudden worsening of growth prospects. Concerns about the sustainability of these imbalances have also been heightened by the reappearance of a fiscal deficit since 2001.

concrete outline of a stock-purchasing plan, involving the purchase of JPY 2 trillion worth of shares at market price from commercial banks whose shareholdings exceed their Tier I capital. At the end of October a new government plan to tackle the non-performing loan (NPL) problem was announced. The plan aims to halve the major banks' NPL ratio by the end of the fiscal year 2004. It also envisages tightening the assessment of banks' assets and examining the need for a new framework for injecting public funds into financial institutions. In addition, it foresees the creation of a new institution with a mandate to revitalise viable borrowers. As to fiscal policy, at the beginning of 2003 the Japanese parliament passed a supplementary budget for the fiscal year 2002. Containing JPY 2.5 trillion of additional spending, it strengthens the safety net for the unemployed and provides support for small and medium-sized enterprises.

In non-Japan Asia, the economic recovery in 2002 was stronger than initially anticipated. This reflected two fundamental factors. First, foreign demand, including demand for information and communication technology products, was more resilient than expected. Moreover, output growth was stronger than expected in China, which fuelled increasing absorption of regional exports. Second, domestic demand recovered in varying degrees in the different countries of the region. In general, more favourable labour market conditions and increasing disposable income reflecting positive spillovers from the external sector in combination with pent-up household demand and supportive policy measures helped to boost domestic demand.

Within the region, China and South Korea posted the highest annual GDP growth rates in 2002, at 8% and around 6% respectively, reflecting broadly based growth. At the other end of the spectrum, Hong Kong SAR and Singapore, despite recovering from negative growth rates in 2001, continued to post sluggish growth. They recorded 2.3% and 2.2% respectively in 2002, weighed down by lacklustre private consumption. Deflationary pressures persisted in China and Hong Kong SAR, reflecting, among other things, structural factors in China and factor equalisation pressures in Hong Kong SAR owing to integration with China. Deflation in Singapore and Taiwan reflected excess capacity, while showing signs of abating towards the end of 2002.

In the EU accession countries, the decline in growth in the course of 2002 was limited. While the impact of the global slowdown on external demand was sizeable, domestic demand and particularly private consumption remained sustained in the majority of countries. However, several countries experienced a general deterioration in their fiscal position, which only partly reflected the less favourable cyclical conditions. The combination of negative output gaps, prudent monetary policies and the appreciation of most accession countries' currencies vis-à-vis the euro also contributed to a deceleration of inflationary pressures (see Chapter VI).

In Turkey, output growth resumed in 2002, following the deep recession and the financial crisis of the previous year. The recovery was initially driven by the external sector, which benefited from the large gain in competitiveness associated with the strong depreciation of the lira, while private consumption growth turned moderately positive starting from the second quarter of 2002. The weakening of the lira, however, was an important factor in the increase in the external debt ratio and in a temporary outburst of inflationary pressures, which abated in the course of the year. On a year-on-year basis consumer price inflation dropped from 73% in January 2002 to 30% in December, below the central bank's year-end inflation target of 35%.

The Russian economy continued to grow at a relatively sustained pace for the third consecutive year, with real GDP growth weakening only slightly, from 5% in 2001 to 4.3% in 2002. Consumption growth remained buoyant and investment demand, sustained by high oil prices, decelerated but remained in positive territory. Inflationary pressures eased somewhat, falling from 18.6% in 2001 to about 15% last year. The current account surplus continued to decline in the course of 2002, as the strong recovery in import growth largely exceeded that in exports.

In Latin America, positive output growth in the two largest countries (Brazil and Mexico) contrasted with the deepening of the economic crisis in Argentina. Overall, the latter proved to be considerably worse than initially expected, causing the region's real output growth to turn negative. Argentina's real GDP experienced a double-digit contraction amid significant constraints on financial flows, which weighed heavily on domestic demand. These financing constraints stemmed, on the domestic side, from a freeze on bank deposits and, on the external side, from the ongoing default on government bonds held by private investors which was announced in late December 2001. In Brazil, the economy was subject to significant financial turbulence as a reaction to increasing public debt and market concerns relating to the country's political situation. However, the economy showed considerable resilience to the financial turmoil. Mexico's economy recovered somewhat from the sharp slowdown experienced in 2001, helped by broadly positive developments in the United States, the continuation of high oil prices and the weakening peso. The economic recovery allowed labour market conditions to stabilise, with the rate of unemployment ending the year below 3%.

Brent crude oil prices increased slightly from an average USD 24.4 per barrel in 2001 to USD 25.0 in 2002. Substantial price increases were recorded from December 2002 through to February 2003, with the price reaching USD 33.7 on 28 February 2003. The recent increase was the result of several factors, including stronger world demand, tight inventories of crude and refining products, and heightened geopolitical tensions. Non-oil commodity prices also rose, particularly as a result of food production cutbacks in reaction to the previous year's lower prices.

Euro appreciated against major currencies in 2002

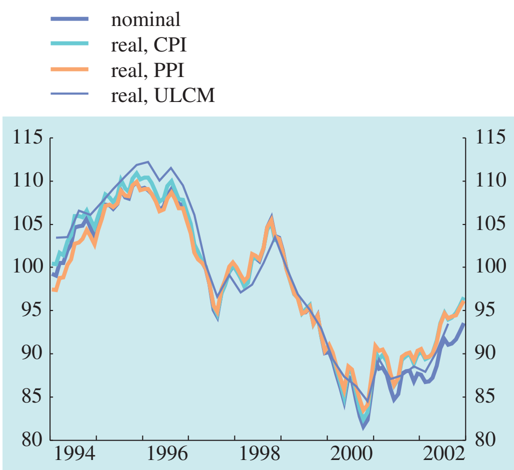
After a period of relative stability in the first quarter of 2002, the euro recorded a sizeable nominal effective appreciation, reaching levels significantly higher than its average in 2001 (see Chart 23). These developments took place against a background of increased uncertainty about growth prospects in the world's major economic areas as well as sharp declines in global equity markets. Overall, at the end of 2002, the nominal effective exchange rate of the euro was almost 6½% stronger than at the beginning of the year and nearly 9% above its average level in 2001. On 28 February 2003, the cut-off date for this Annual Report, the euro's nominal effective exchange rate had appreciated by 8.3% compared with the average for 2002. The real effective exchange rates of the euro, which are adjusted for the price and labour cost differentials between the euro area and its partner countries, have tracked the nominal index fairly closely (see Chart 23). The minor differences mainly reflect the differing price and labour cost developments between the euro area and some of its main trading partners, particularly Japan.

After remaining broadly stable against the euro in late 2001 and early 2002, the US dollar depreciated quite sharply relative to the single currency from April until end-July 2002. The deteriorating growth outlook for the US economy may have been a factor

Chart 23

Nominal and real effective euro exchange rates [1)]

(monthly/quarterly data; index: 1999 Q1 = 100)



Source: ECB.

1) An upward movement of the index represents an appreciation of the euro. The latest observations for monthly data are February 2003. In the case of the ULCM-based real EER, the latest observation is for the third quarter of 2002 and is partly based on estimates.

behind the fairly broadly based decline in the US dollar. The pressures on the dollar were intensified by market concerns about compliance with corporate accounting principles in the United States. After a subsequent period of relative stability at a fairly high level, the dollar depreciated further against the euro towards the end of the year. The latter development was associated with a combination of factors: the widening of negative interest rate differentials vis-à-vis the euro area, market concerns regarding the US current account imbalance, the emergence of a US fiscal deficit and uncertainty about US economic growth prospects. Increasing geopolitical tensions were also quoted by market analysts as weighing on the US currency. At the end of 2002, the euro stood at USD 1.05, which was 16% higher than at the beginning of the year and slightly more than 17% above the 2001 average. On 28 February 2003, the euro traded at USD 1.08, which was 14% above its average in 2002.

After depreciating against the euro during the last few months of 2001, the Japanese yen remained relatively stable for most of 2002. In the last quarter of that year it depreciated, partly reflecting the uncertainty about the growth prospects in some of Japan's main export markets and because of market concerns about the resolution of the financial sector problems in Japan. This, in turn, contributed to a downward revision of the Japanese authorities' assessment of the domestic economic outlook. On 31 December, the euro stood at JPY 124.39, which was 4.1% stronger than at the beginning of the year and 14½% above its average level in 2001. On 28 February 2003, the euro was quoted at JPY 127.32, i.e. 7.8% stronger than the 2002 average.

In late 2001, the Swiss franc appreciated against all major currencies, including the euro, following the terrorist attacks in the United States on 11 September 2001. Throughout the first three quarters of 2002, the Swiss currency remained broadly stable relative to the euro, while it appreciated quite sharply vis-à-vis the US dollar. Towards the end of the year, the Swiss franc strengthened further against all major currencies in the face of renewed global risk aversion. At the end of 2002, the euro was quoted at CHF 1.45, 2.1% weaker than at the beginning of the year and 3.9% below its average level in 2001. On 28 February 2003, the euro stood at CHF 1.46, almost unchanged relative to its 2002 average.

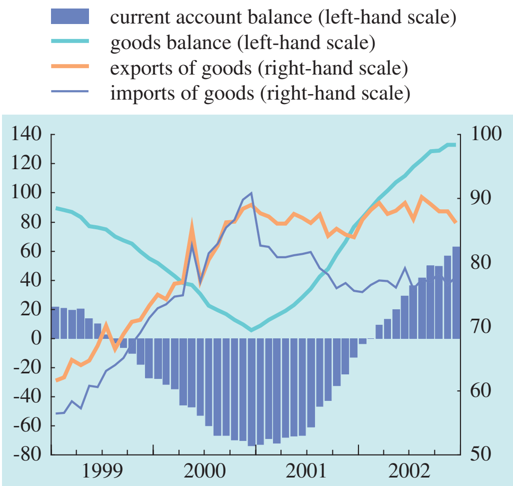
Current account moved into surplus in 2002

The current account of the euro area recorded a surplus of €62.1 billion in 2002, compared with a deficit of €13.8 billion in 2001 (all data refer to the Euro 12). A substantial increase in the goods surplus from €75.8 to €132.7 billion (see Chart 24) was the main factor behind this development. The income and current transfers deficits remained broadly unchanged. The rise in the goods surplus resulted mostly from a significant decline in the value of imports combined with a small increase in exports.

Chart 24

The euro area current account balance and trade in goods

(EUR billions; seasonally adjusted)



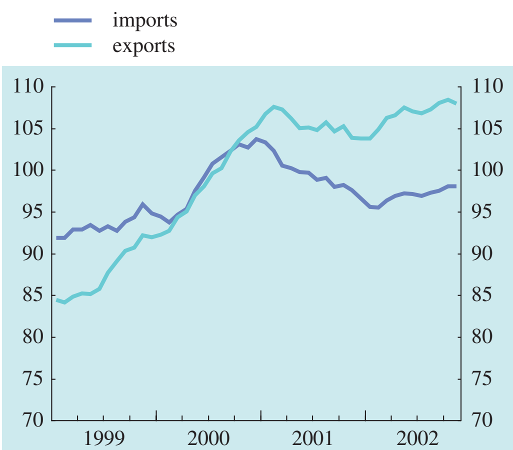
Source: ECB.
Note: Data refer to the Euro 12. Balances are cumulated over 12 months. Exports and imports of goods are monthly values.

The fall in the value of goods imports in 2002 compared with a year earlier related to developments in both import volumes and prices (see Charts 25 and 26). First, import prices were lower in 2002 mainly because of the sizeable appreciation of the euro in the course of the year. Second, import volumes remained broadly flat and below

Chart 25

Extra-euro area trade volumes [1)]

(index: 2000 = 100, seasonally adjusted, three-month moving average)

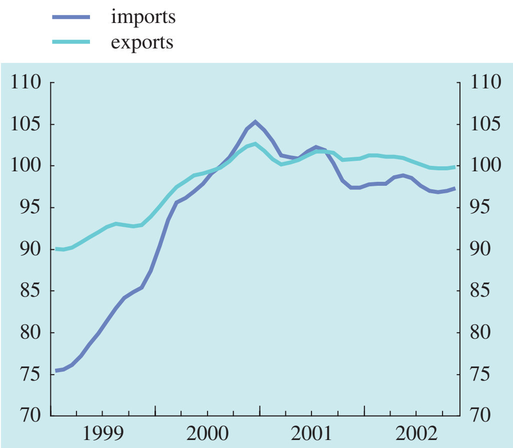


Sources: Eurostat and ECB calculations based on Eurostat data.
1) Latest observations are for November 2002 and partly based on estimates.

Chart 26

Extra-euro area trade unit value indices 1)

(index: 2000 = 100, seasonally adjusted, three-month moving average)



Sources: Eurostat and ECB calculations based on Eurostat data.
1) Latest observations are for November 2002 and partly based on estimates.

their 2001 level throughout 2002, in response to subdued euro area demand. Reduced expenditure on some import-intensive product categories, particularly capital goods, seems to have been the main factor contributing to the latter development.

The small increase in the value of goods exports between 2001 and 2002 was associated with an increase in export volumes, in line with the recovery in foreign demand in 2002. However, the rise in volumes was not fully reflected in value terms as extra-euro area export prices fell (as measured by unit value indices). It cannot be excluded that euro area exporters reduced their profit margins to offset the decline in competitiveness resulting from the appreciation of the euro.

Net inflows in combined net direct and portfolio investment in 2002

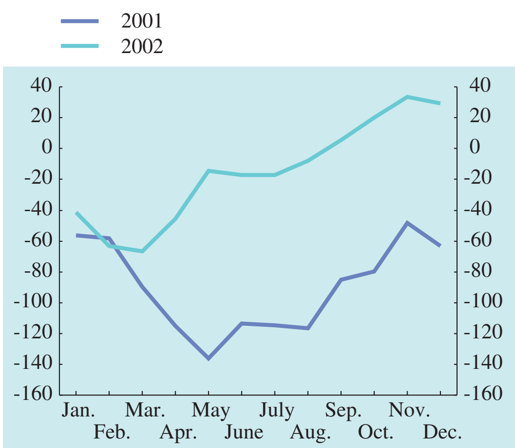
The combined net direct and portfolio investment accounts shifted from net outflows of €63.4 billion in 2001 to net inflows of €29.4 billion in 2002 (see Chart 27). This shift was partly due to the sharp reduction in net outflows in direct investment between 2001 (€101.5 billion) and 2002 (€21.0 billion), which largely reflects a substantial decline in mergers and acquisitions activity (see Box 8 for a detailed review of developments in mergers and acquisitions activity in recent years). Moreover, net inflows in portfolio investment in the euro area increased in 2002, amounting to €50.4 billion, against a background of significant declines in global stock market valuations and the associated large falls both in euro area investment in foreign equity securities and in foreign investment in euro area securities. Euro area residents also reduced their investment in debt instruments abroad, while flows into euro area debt instruments resulting from purchases by non-residents increased sizeably.

One of the salient features in the financial account in 2002 was that overall changes in portfolio flows are no longer primarily related to developments in equity flows, as was the case for most of 2001 and early 2002, but were increasingly determined by flows in debt instruments. Among debt instruments, the euro area experienced net inflows in bonds and notes (€21.0 billion) and small net outflows in money market instruments (€9.7 billion) in 2002. The global economic slowdown and sharp equity price declines

Chart 27

Euro area combined net direct and portfolio investment flows

(EUR billions, cumulated data)



Source: ECB.
Note: A positive (negative) value indicates a net inflow (outflow).

are likely to have contributed to these developments. It is worth noting that cross-border investment in money market instruments surged, possibly owing to heightened uncertainty in the global corporate sector. In particular, euro area residents invested €55.6 billion in foreign money market instruments compared with €20.7 billion in 2001, while foreign investors invested €45.9 billion in euro area money market instruments compared with €4.5 billion a year earlier.

Overall in 2002, the euro area balance of payments displayed a combination of a current account surplus and significant net inflows in combined direct and portfolio investment. A counterpart of these net inflows was short-term operations of euro area MFIs (excluding the Eurosystem) with net outflows of €159.4 billion. As a result, the net external position of euro area MFIs (excluding the Eurosystem) exhibited a swing from net liabilities at end-2001 to a net asset position at end-2002.

Box 8

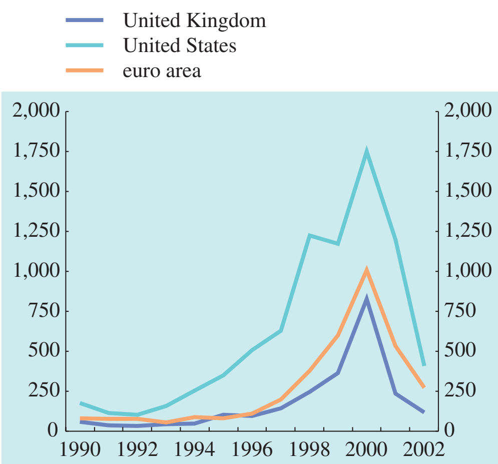
Trends in international mergers and acquisitions activity from 1990 to 2002

The late 1990s and the first few years of this decade saw a boom in mergers and acquisitions (M&A) activity, in particular among European and US firms. Although declining substantially since its peak in 2000-2001, M&A transactions have become a highly important feature of the US and European economies, with much of the M&A activity in the technology and telecommunications sectors. The purpose of this box is to outline some of the main characteristics of recent trends, and in particular to analyse the bilateral M&A activity between the euro area and the United States.

Trends in size and direction of M&A deals

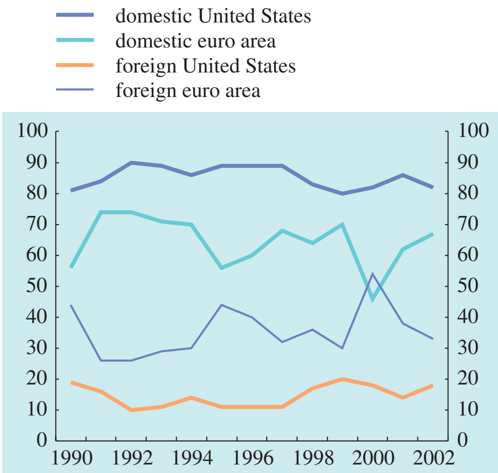
Gross M&A activity[1] in the euro area and the United States rose from €281 billion in 1990 to a peak of more than €2,900 billion in 2000, falling to €673 billion in 2002. By far the most active in M&A transactions were US companies, which in gross terms were involved in deals worth around €1,800 billion in 2000 alone (see Chart A). The rise of M&A in the euro area was also strong in the 1990s, but less impressive than that in the

Chart A: Total value of mergers and acquisitions transactions
(EUR billions)



Sources: Thomson Financial and ECB calculations.

Chart B: Location of euro area and US mergers and acquisitions transactions
(as a percentage of total)



Sources: Thomson Financial and ECB calculations.

1 *Gross M&A activity includes transactions in which companies of a given country are either the acquirer or the target. The source of the M&A data is Thomson Financial.*

United States and the United Kingdom. Over the peak M&A period between 1997 and 2002, euro area firms were involved in M&A deals worth more than €3,000 billion, or 6.9% of euro area GDP. By contrast, US companies registered M&A transactions of around €6,400 billion, or 11% of US GDP, and UK companies registered around €2,000 billion, or 22.5% of UK GDP.

Comparing the rise in the number with the rise in the value of M&A transactions shows that the latter has accelerated more strongly in recent years. This indicates that the average size of M&A deals has become substantially larger. In fact, the average value of M&A deals involving euro area firms increased from €20 million in the period from 1990 to 1996 to €90 million between 1997 and 2002. Although the average value of M&A deals involving US and UK companies rose as well and remained substantially larger than that of the euro area, the percentage growth in the average value of M&A deals in the euro area surpassed that of the United States and the United Kingdom.

Analysing the direction of M&A flows reveals that the share of foreign M&A transactions in the total transaction value generally rose throughout the 1990s in the euro area and was stable in the United States. One key difference between the United States and the euro area was the much higher share of domestic as opposed to cross-border M&A activity in the United States. By contrast, euro area firms were much more involved in M&A with foreign companies than US firms, both in absolute terms as well as in relative terms (see Chart B).

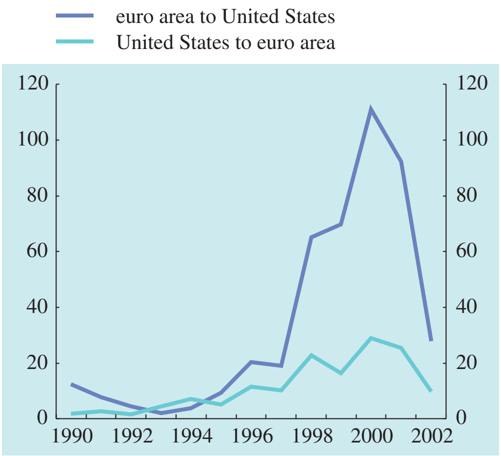
Although there does seem to be some coincidence between the start of Stage Three of EMU and the increase in M&A activity within the euro area, it is difficult to disentangle this from other factors such as legal harmonisation, advances in information technology and the deregulation and liberalisation of some sectors and markets.

Bilateral M&A transactions between the euro area and the United States

Bilateral M&A flows between the euro area and the United States have shown some marked differences in recent years. M&A investment by euro area firms in the United States and that by US firms in the euro area were at similar levels in the first half of the 1990s. As from 1996, M&A investment by euro area firms in the United States increased dramatically, rising more than fivefold between that year and 2000, whereas M&A flows in the other direction rose only modestly (see Chart C). This shows a clear asymmetry in M&A flows between the euro area and the United States. The rapid economic and productivity growth in the second half of the 1990s in the United States and its booming stock market, in particular in the technology sector, are likely to have contributed to the attractiveness of US firms.

Chart C: Bilateral euro area-US mergers and acquisitions transactions

(EUR billions)

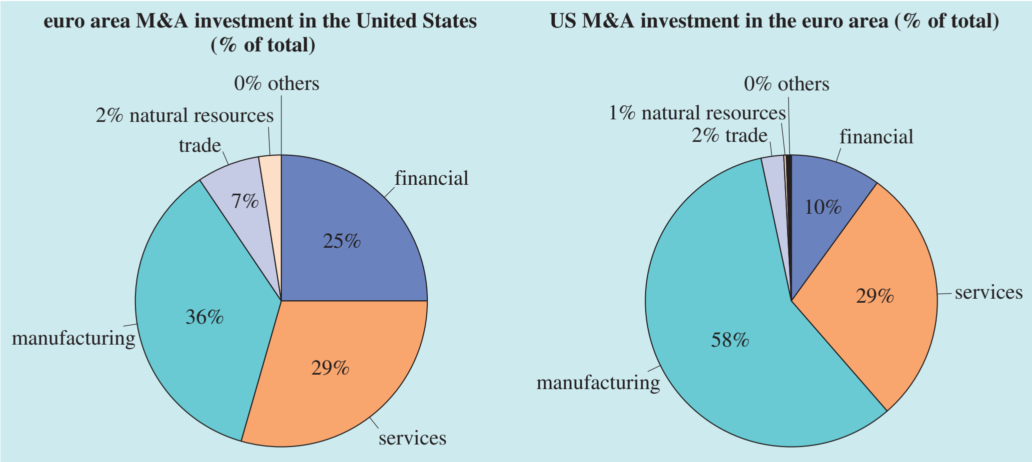


Sources: Thomson Financial and ECB calculations.

As to the sectoral composition, 58% of US M&A investment went into euro area manufacturing firms, a much larger share than the proportion of euro area M&A investment in the US manufacturing sector, 36% (see Chart D). By contrast, euro area firms invested a much larger share in US financial sector firms (25%) than US companies did in euro area financial sector firms (10%). In the high-tech sector[2] the dramatic rise in M&A

2 *The high-tech sector, as defined in Thomson Financial's M&A database, consists mainly of various sub-sectors of manufacturing and services.*

Chart D: Mergers and acquisitions investment by sector, 1997-2002



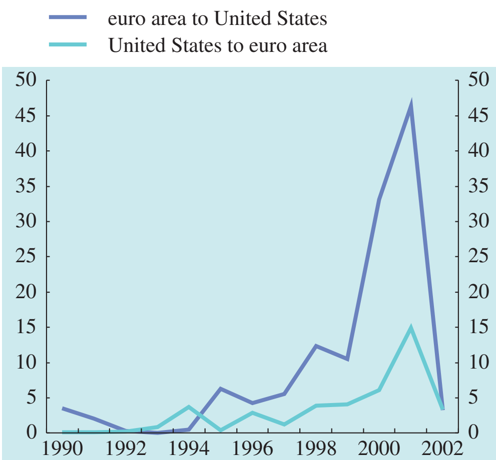
Sources: Thomson Financial and ECB calculations.

activity in the late 1990s and 2000 was largely due to the technology boom. Between 1995 and 2000, M&A transactions in this sector rose exponentially both in the United States and in the euro area. Euro area M&A activity in the high-tech sector increased from around 10% of total euro area M&A activity in the first half of the 1990s to 50% in 2000. As equity valuations in the technology sector have declined since 2000, this share has fallen dramatically, reaching less than 10% of total transactions in the first nine months of 2002. Not only is total M&A activity by US firms substantially higher than that of euro area firms, but also the share of M&A transactions in the high-tech sector was for most of the period substantially larger in the United States than in the euro area.

Euro area firms invested heavily in the US technology sector in order to gain expertise and market access. Chart E shows that euro area M&A investment in US high-tech companies increased substantially until 2000, whereas US M&A investment in euro area high-tech companies rose only modestly. Partly overlapping with the high-tech industry, the telecommunications sub-sector[3] experienced a particularly sharp increase in M&A activity in the late 1990s. In fact, the value of the operations involving euro area firms rose from less than €50 billion annually before 1998 to more than €300 billion in 1999.[4] One point to be stressed is that M&A activity in the telecommunications sub-sector was mainly driven by euro area firms. Moreover, the share of telecommunications transactions in total euro area M&A investment rose from less than 10% before 1998 to more than 50% in 1999. By contrast, the increase in the importance of

Chart E: Bilateral euro area-US mergers and acquisitions in high-tech industry

(EUR billions)



Sources: Thomson Financial and ECB calculations.

3 *Part of the telecommunications sub-sector, as defined in the Thomson Financial M&A database, is included in the high-tech sector.*

4 *Vodafone's acquisition of Mannesmann accounts for a large share of the M&A value in this sector in 1999. However, M&A activity increased significantly even when this major deal is excluded.*

the telecommunications sub-sector was much less sizeable for the United States, where telecommunications M&A transactions reached only around 20% of total activity in 1999.

Overall, the analysis of the sectoral composition and of bilateral flows reveals that the M&A boom of the late 1990s and in recent years was mainly driven by acquisitions of technology and telecommunications firms by both European and US companies. Since its peak in 2000, M&A activity has declined substantially, returning to levels comparable to those of the mid-1990s. This decline has been particularly strong in the high-tech sectors of both the euro area and the United States.

Press conference following the external Governing Council meeting in Maastricht on 7 February 2002 to mark the tenth anniversary of the signing of the Maastricht Treaty. President Duisenberg announces that he will step down in 2003

The Limburg Government building in Maastricht where the meeting was held

Chapter II

Central bank operations

1 Monetary policy implementation

1.1 Overview

The operational framework for the implementation of the single monetary policy worked effectively in 2002. The main elements of the operational framework – the open market operations, standing facilities and minimum reserve system, as well as the decentralised execution and administration of operations by the NCBs – remained unchanged.[1]

The weekly main refinancing operations (MROs), which normally have a two-week maturity, provide the bulk of the refinancing to the banking sector and play a pivotal role in steering liquidity conditions and signalling the stance of monetary policy. The Eurosystem also carries out monthly longer-term refinancing operations (LTROs) with a three-month maturity, which are not, however, used to signal the monetary policy stance. In addition to these regular open market operations, the Eurosystem conducted three fine-tuning operations in 2002 to deal with unexpected developments in liquidity conditions.

The two standing facilities offered by the Eurosystem, namely the marginal lending facility and the deposit facility, which provide and absorb overnight liquidity, play a part in signalling the monetary policy stance and set an upper and lower limit for the overnight market interest rate.

Besides conducting open market operations and offering the standing facilities, the Eurosystem requires credit institutions to hold minimum reserves, which are equal to 2% of specified short-term liabilities. The purpose of minimum reserves, which are fully remunerated, is to stabilise short-term money market interest rates and enlarge the structural liquidity deficit of the banking system vis-à-vis the Eurosystem. The averaging provision, which allows counterparties to fulfil their reserve requirements on average over a one-month reserve maintenance period, helps stabilise these short-term rates by dampening the impact on them of temporary liquidity shocks. Thus, the Eurosystem can normally limit its open market operations to the regular MROs and LTROs.

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 have, in principle, access to the standing facilities and to the open market operations based on standard tenders. In this regard, the E-money Directive,[2] which had to be implemented by the Member States by 27 April 2002, has amended the definition of credit institutions subject to minimum reserves such that it also includes electronic money institutions.

In addition to the general eligibility criteria, counterparties must also fulfil all operational criteria specified in the contractual or regulatory arrangements applied by the euro area NCBs to ensure the efficient conduct of monetary policy operations. At the end of 2002, 3,245 of the 6,926 euro area credit institutions subject to minimum reserves had access to the deposit facility and 2,867 to the marginal lending facility. While 2,320 credit institutions were eligible to participate in open market operations based on standard tenders, only 763 actually submitted bids in one or more MROs, and 400 in one or more LTROs. A selected group of 141 credit institutions were eligible for fine-tuning operations. Compared with the situation at the end of 2001, the total number of credit institutions subject to minimum reserves decreased by 293 as a result of the continued consolidation of the banking industry.

1 *A detailed description of the operational framework can be found in the ECB publication "The single monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures", April 2002.*

2 *Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions.*

1.2 Liquidity management

The Eurosystem's liquidity management plays an important role in the implementation of the single monetary policy. It relies on the assessment of the banking system's liquidity needs, which arise from reserve requirements, excess reserves (defined here as average current account holdings during the maintenance period minus reserve requirements) and autonomous factors. The latter refer to the items on the central bank balance sheet not under the central bank's direct control, e.g. banknotes in circulation, government deposits and net foreign assets.

While the amounts of reserve requirements and excess reserves are normally known with a relatively high degree of precision, autonomous factors are more volatile and more difficult for counterparties to predict. Therefore, the ECB publishes, on a weekly basis, a forecast of the average size of the autonomous factors, which aims to help counterparties prepare their bids for open market operations. In 2002 the average

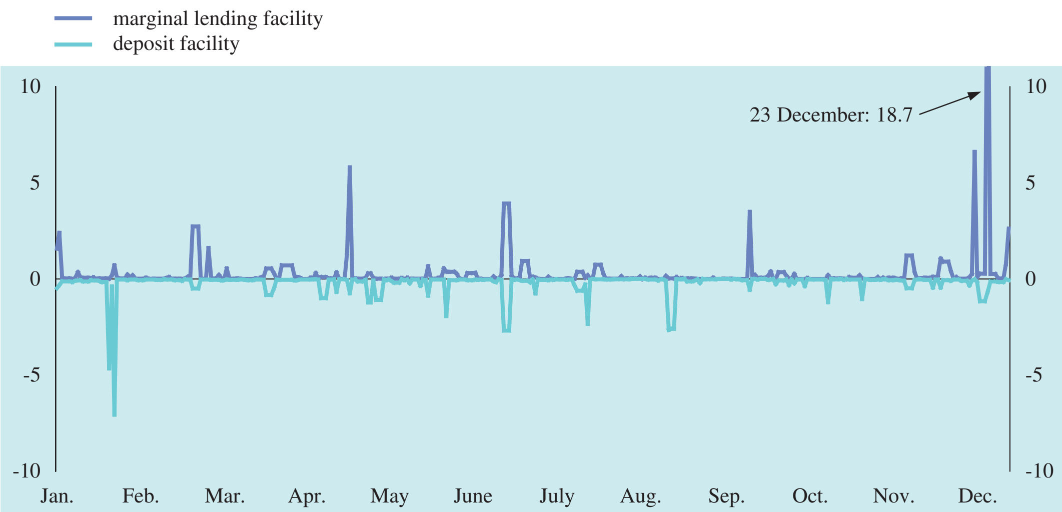
Chart 28

Liquidity factors and the use of standing facilities in the euro area in 2002

(EUR billions)

Liquidity factors

Standing facilities



Source: ECB.

absolute error of these forecasts relative to outcomes was €1.8 billion. In 2001 the corresponding figure was €1.9 billion.

Overall in 2002 the most volatile and also most difficult to forecast autonomous factor was again government deposits held with the NCBs. However, after the euro cash changeover in January 2002, difficulties were also experienced in forecasting banknotes in circulation. Indeed, the demand for new euro banknotes turned out to be stronger than anticipated by the Eurosystem, while at the same time the old national banknotes were returned somewhat more slowly than expected. As a consequence, in January 2002 the errors in the Eurosystem's forecasts of total banknotes in circulation were around four times higher than on average. In order to meet the unexpected demand for liquidity that resulted from the temporary increase in the demand for banknotes, the Eurosystem carried out two liquidity-providing fine-tuning operations. In addition, the ECB exceptionally provided more frequent updates of the published autonomous factor forecasts, in

Box 9

Public consultation on measures to improve the efficiency of the operational framework for monetary policy

On 7 October 2002 the Eurosystem launched a public consultation of the euro area banking community regarding technical measures designed to improve the efficiency of the operational framework for monetary policy.

The three measures proposed in the public consultation were:

(1) to change the timing of the reserve maintenance period so that it would always start on the settlement day of the MRO following the Governing Council meeting at which the assessment of monetary policy is pre-scheduled. Furthermore, as a rule, possible changes to the standing facility rates would be aligned with the start of a new reserve maintenance period;
(2) to shorten the maturity of the MROs from two weeks to one week; and
(3) to suspend the LTROs.

The change in the timing of the reserve maintenance period is aimed at addressing two issues: first, to reduce the impact of interest rate expectations on counterparties' bidding behaviour in the MROs and, second, to reduce the likelihood that reserve maintenance periods start and end on days when TARGET is closed, which can create costs for banks in fine-tuning their liquidity management via standing facilities.

The shortening of the MRO maturity is a complementary measure, which will prevent MROs from overlapping from one reserve maintenance period to the next and thus from being affected by interest rate expectations for future reserve maintenance periods.

Suspending the LTROs was proposed in order to promote a lean implementation of monetary policy. The declining interest in these operations had raised doubts as to whether they still fulfilled their originally intended role.

The responses to the public consultation came from a wide range of euro area credit institutions, in terms of both location and size. While they generally supported the first two proposals, they revealed that the LTROs continue to serve the liquidity management needs of many Eurosystem counterparties. Hence, the majority of the responses were against the third proposal.

The Governing Council decided in January 2003 to change the timing of the reserve maintenance period and to shorten the maturity of the MROs in the first quarter of 2004. However, it decided not to suspend the LTROs.

order to make market participants aware of the unusual developments in liquidity conditions. By March 2002, the forecast errors for banknotes in circulation had returned to normal.

Notwithstanding the generally positive assessment of the functioning of its operational framework since the introduction of the euro in 1999, in October 2002 the Eurosystem launched a public consultation regarding technical measures designed to improve the framework's efficiency (see Box 9).

1.3 Open market operations

In 2002 the Eurosystem settled 53 MROs with an average allotment size of €67 billion, supplying 71% of the total refinancing volume. They were conducted as variable rate tenders with a minimum bid rate and following 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. As a result of the variable rate tender and multiple rate auction procedure, the allotment rates (i.e. the marginal rate and the weighted average rate) are normally higher than the minimum bid rate. Reflecting the absence of strong expectations of interest rate increases in 2002, the average spread between the marginal rate and the minimum bid rate remained rather narrow at 4.8 basis points. Furthermore, as in the previous year the average spread between the weighted average rate and the marginal rate stood at 1.4 basis points, confirming a continued high degree of confidence and precision among counterparties in forecasting the allotment amounts and rates.

The average number of counterparties participating in the MROs declined in 2002 by 25% to 307, although the total bid amount remained on average almost twice as high as the allotted amounts. There are no signs that the lower number of banks obtaining refinancing directly from the Eurosystem has caused problems for the euro area banking system with regard to the allocation of central bank liquidity among banks. Indeed, competition for liquidity in the MROs as well as in the overnight market remains at a high level. The declining participation in MROs probably results from the ongoing consolidation in the euro area banking industry, the increased concentration of treasury management activities within banking groups, and the greater efficiency of the money market, which may have reduced the number of counterparties wishing to obtain liquidity directly from the Eurosystem.

In addition to the MROs, the Eurosystem also conducts LTROs on a regular basis. These are liquidity-providing reverse transactions with a monthly frequency and a maturity of three months. On average over the year, LTROs provided about 29% of the total refinancing volume. By contrast with the MROs, the LTROs are not, as a rule, conducted with the intention of steering the liquidity situation or signalling the monetary policy stance. Accordingly, they are conducted as pure variable rate tenders with a pre-announced allotment volume and following the multiple rate ("American") auction procedure. Whilst the pre-announced allotment volume was €20 billion in the first half of 2002, the Governing Council decided on 10 July 2002 to reduce it to €15 billion for the second half of the year. The average number of banks participating in the LTROs fell to 186 in 2002, representing a decline of 17% compared with 2001, mainly for the same reasons as those previously mentioned for the MROs.

In the LTROs, the dispersion of bids was generally greater than in the MROs, mainly on account of the absence of a minimum bid rate and the longer maturity. On average over the year, the weighted average rate exceeded the marginal rate by 1.9 basis points, compared with 2.7 basis points in 2001. The bid cover ratio averaged 2.1 despite the fall in the number of participating counterparties.

As mentioned previously, the Eurosystem conducted two fine-tuning operations on 4 and 10 January 2002 in order to meet the higher than expected demand for liquidity caused by the euro cash changeover. These overnight reverse operations were conducted as variable rate tenders with the same 3.25% minimum bid rate as the preceding MROs. In the first operation, €25 billion was allotted and 61 banks participated. In the second, €40 billion was allotted and 63 banks participated. The marginal and weighted average rates were 3.30% and 3.32% respectively in the first quick tender, declining to 3.28% and 3.30% in the second.

In addition, a liquidity-providing fine-tuning operation with a six-day maturity was conducted on 18 December as a variable rate tender with a minimum bid rate of 2.75%. 50 counterparties submitted bids in the operation and €10 billion was allotted at a marginal rate of 2.80% and a weighted average rate of 2.82%. The operation was aimed at reducing the liquidity shortage that resulted from the fact that counterparties, in the last MRO of the reserve maintenance period, allotted a day before, bid less than was needed to fulfil reserve requirements. However, the allotment amount, which did not fully compensate the liquidity shortage, also took into account the ECB's aim to preserve incentives for counterparties to bid sufficiently in MROs.

1.4 Standing facilities

There are normally two reasons for credit institutions having recourse to the standing facilities. First, if an aggregate liquidity imbalance materialises, the banking system as a whole either has too little or too much liquidity relative to the aggregate reserve requirement. If such liquidity shortages or excesses emerge after the last MRO of the maintenance period has been allotted, they need to be offset by aggregate recourse to the marginal lending facility or the deposit facility. Note that these aggregate imbalances explain the spikes in the lower panel of Chart 28. Second, unexpected payment flows between individual banks at the end of the day, when the money market is no longer liquid, may trigger individual recourse to the standing facilities. Such recourse can take place at any time during the maintenance period if the unexpected liquidity flows cannot, for some reason, be automatically smoothed by the averaging provision of the minimum reserve system.

In 2002 there was a decline in both aggregate and individual use of standing facilities. The use of the marginal lending facility and the deposit facility was respectively 32% and 64% lower than in 2001. The decline in the aggregate use of standing facilities can be primarily attributed to the fact that there was only one relatively minor instance of underbidding in 2002, but also to the improved forecasting of liquidity needs by the Eurosystem. The individual use of standing facilities has been declining steadily since the beginning of 1999, reaching a daily average of €0.1 billion in 2002. This development probably reflects greater efficiency of counterparties' liquidity management.

1.5 The minimum reserve system

The average aggregate reserve requirement for credit institutions in the euro area was €129.9 billion in 2002. Although this was a €5.9 billion increase compared with 2001, the overall trend during the year was downwards. The highest aggregate reserve requirement was €131.7 billion in the maintenance period ending on 23 February 2002 and the lowest €127.7 billion in the maintenance period ending on 23 October. The average monthly reserve base subject to the 2% reserve ratio increased by 3.5% relative to 2001, a significantly lower rate of growth than that observed in previous years.

Of the 6,926 credit institutions subject to minimum reserves at the end of 2002, 4,432 fulfilled their requirements directly, while the others fulfilled them indirectly through an intermediary. The current account holdings of banks fluctuated between €109.1 billion and €161.7 billion in the course of the year, indicating that a substantial buffer against unexpected liquidity withdrawals was always available (see the upper panel of Chart 28). Mainly owing to the averaging provision of the minimum reserve system, the volatility of the EONIA (euro overnight index average) continued to be low in 2002. The standard deviation of its daily changes was only 12 basis points, which is rather low by international standards and taking into account the very low frequency of fine-tuning operations. In 2001 the corresponding figure was 15 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 successfully performed in 2002.

During 2002, on average 28 cases of non-compliance with the obligation to hold minimum reserves were reported per reserve maintenance period, corresponding to an average daily shortfall of €10.5 million. Half of these cases were only for small amounts, and penalties of below €500 were imposed. However, there were also several rather large infringements and during the year 13 cases led to fines in excess of €10,000. Most of the non-compliant credit institutions acknowledged the errors, while ten institutions raised objections that required a decision by the Executive Board of the ECB.

1.6 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 systems operations (see also 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 to ensure sufficient availability of adequate collateral for Eurosystem credit operations. Article 102 of the Treaty establishing the European Community prohibits privileged access by public institutions to financial institutions; therefore there can be no discrimination within the collateral framework on the grounds of the public or private sector status of the issuers.

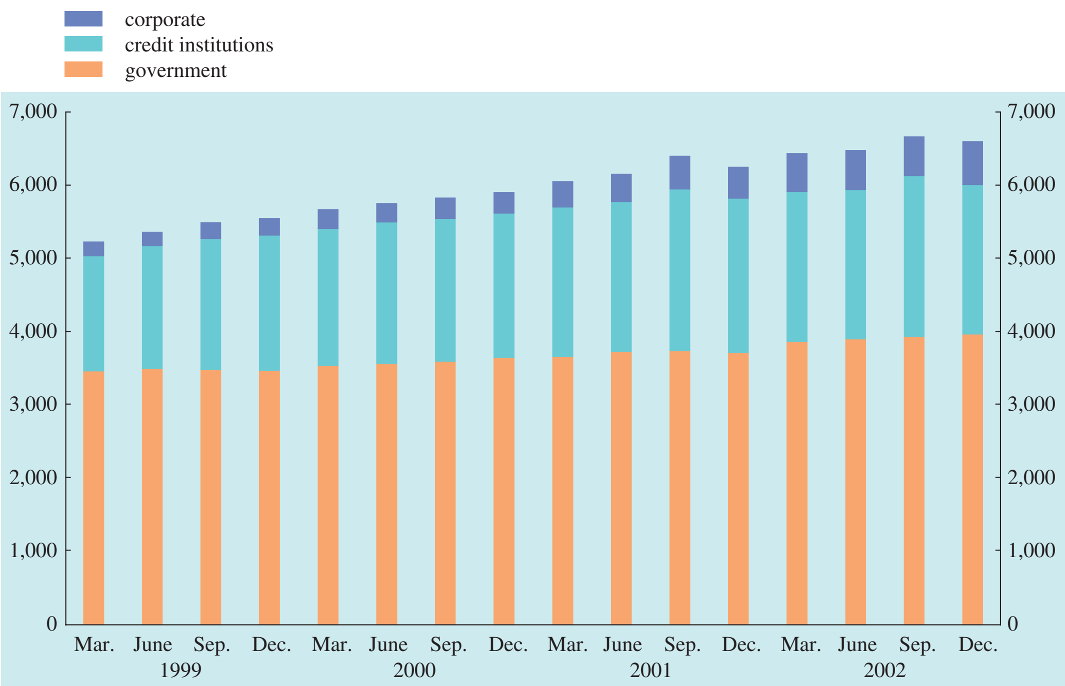
In order to take account of differences in the financial structure of euro area countries, assets eligible for Eurosystem credit operations include a large number of different instruments. A distinction is made between two categories of eligible assets, referred to as "tier one" and "tier two". This 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 (at present not conducted). 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 in accordance with the minimum eligibility criteria. The specific national eligibility criteria for tier two assets are subject to approval by the ECB. Tier two assets may be marketable or non-marketable debt instruments or they may be equities.

A substantial part of tier one assets (which include debt instruments only) is made up of general government securities, (i.e. assets issued by central, state and local governments and social security funds) and of Pfandbrief-style securities issued by credit institutions and backed by residential mortgages or by public sector debt. Together general government and Pfandbrief-style securities form the most abundant source of eligible assets (see Chart 29). Other types of assets

Chart 29

Tier one eligible assets for Eurosystem credit operations

(end-of-month data; EUR billions)



Source: ECB.

included in tier one are securities issued by international and supranational institutions, private sector securities (i.e. uncovered bonds issued by credit institutions, bonds issued by corporations and asset-backed securities other than Pfandbrief-style securities). In particular, bonds issued by corporations have registered a remarkable increase since 1999. Tier two assets consist of – in addition to marketable assets – non-marketable debt instruments such as bank loans, trade bills and mortgage-backed promissory notes.

The total amount of tier one assets eligible as collateral for Eurosystem credit operations was €6.9 trillion at the end of 2002, compared with €6.6 trillion at the end of 2001. The total amount of marketable tier two assets decreased from €340 million in 2001 to €265 million in 2002, mainly as a consequence of equity market developments.[3] Overall, tier one assets accounted for an increasing proportion of eligible assets (96% at the end of 2002).

The total amount of assets deposited by counterparties as collateral for Eurosystem credit operations was €700 billion at the end of 2002, compared with €720 billion at the end of 2001. Overall, the share of debt instruments issued by credit institutions in the total remained stable at 52%, as in 2001. The same path, although at a lower level, was observed for the share of corporate bonds, whereas the share of government issues decreased. The share of non-marketable bank loans has been relatively stable at around 4% of all assets deposited during the past four years.

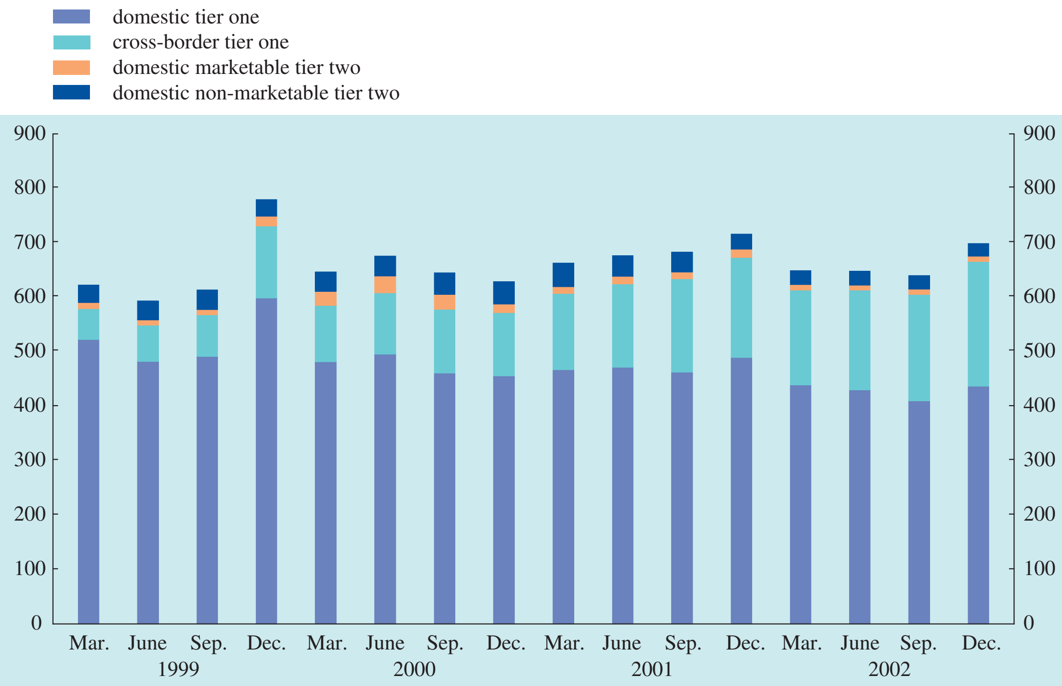
Eurosystem counterparties may use eligible assets on a cross-border basis, i.e. they can obtain funds from the NCB of the country in which they are established by making use of assets located in another euro area country. To enable the cross-border use of collateral in all types of Eurosystem liquidity-providing

3 *The outstanding amounts of debt instruments are reported in nominal values whereas equities are valued at market prices.*

Chart 30

Use of collateral in Eurosystem credit operations

(end-of-month data; EUR billions)



Source: ECB.

operations, the correspondent central banking model (CCBM), as well as links between securities settlement systems (SSSs) that have been positively assessed against Eurosystem standards, are available. The CCBM can be used for all eligible assets, including non-marketable assets and tier two assets with restricted liquidity and special features that cannot be transferred through an SSS (see Chapter VII). The share of cross-border collateral in total collateral deposited for Eurosystem credit operations has been increasing substantially, from 9% in April 1999 to 33% at the end of 2002 (see Chart 30). This increase involves all types of assets, but particularly those issued by credit institutions and corporations. 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 eligible assets issued in their respective national markets. Assets are only considered eligible for Eurosystem credit operations when they appear in the list published by the ECB. Since June 2002, the ECB has on a daily basis been collecting data and posting them in the "MFIs and Eligible assets" section of its website. Interested parties may also request the updates or the full list of eligible assets in electronic form. The new updating procedure has increased the quality, efficiency and reliability of the service provided to Eurosystem counterparties.

1.7 Money market activity

The introduction of the euro led to the creation of a large, liquid and integrated money market across the euro area, particularly in the unsecured segment (e.g. unsecured lending and foreign exchange swaps). In 2002 progress was also made in the secured segment (e.g. repos and short-term securities), the money market segment that has been lagging behind the most so far.

The euro repo market has evolved in terms of both size and structure, becoming a sound alternative to unsecured lending or short-term securities issuance. The use of repos to obtain funding has spread across a broad range of financial market participants. Most repo transactions are conducted on the basis of sovereign bonds, but a diversification of the type of collateral has taken place. There is also an overall trend towards the acceptance of a wider basket of sovereign bonds in general collateral (GC) repos, reinforced by the launch of the EUREPO index in March 2002, which is the benchmark for the euro GC repo market. However, despite the considerable progress that has been made, the integration of the national repo markets into one unified market is still a slow and complex process.

In the short-term securities segment, which is characterised by a lesser degree of development and integration, an initiative has been launched by ACI-STEP, the Short-term European Paper Task Force set up by ACI – The Financial Markets Association, to improve the current situation. The task force has so far made a number of recommendations. On ACI's behalf, the ECB hosted a public consultation on how the European short-term securities markets could be further integrated, the results of which will be made public in 2003.

The third ESCB report on the structure and functioning of the euro money market,[4] based on data collected from banks in 2001, showed that overall growth in money market activity continued, although at a lower rate than in previous years. In the unsecured segment, the data did not indicate a clear trend in turnover, but confirmed that activity is concentrated in the overnight segment and maturities of up to one month. In the secured segment, growth in turnover continued in 2001. In the OTC derivatives segments, the most rapid growth was reported for interest rate swaps and cross-currency swaps. Finally, activity in euro-denominated interest rate futures, options and short-term securities increased significantly.

2 Foreign exchange operations and the management of the ECB's foreign reserves and own funds

2.1 Foreign exchange operations

In 2002 the ECB did not conduct any intervention of its own in the foreign exchange market. However, on 28 June the ECB did conduct operations in the foreign exchange market on behalf of the Bank of Japan under the agency agreement with the latter, acting as an agent of the Japanese Ministry of Finance.

The standing arrangement between the ECB and the International Monetary Fund (IMF) to facilitate the initiation of special drawing right (SDR) transactions by the IMF on behalf of the ECB with other SDR holders, was activated on one occasion in 2002.

2.2 Foreign reserve management

The aim of 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 return.

At the end of 2002 the ECB's net foreign reserve assets amounted to €43.2 billion, compared with €46.8 billion at the end of

4 *"The Euro Money Market Study 2001", December 2002.*

2001. The change mainly reflects the appreciation of the euro seen in 2002. The possibility exists for the ECB to make further calls on the euro area NCBs' foreign reserve assets under the conditions defined in secondary European Community legislation (i.e. Council Regulation (EC) No. 1010/2000 of 8 May 2000 concerning further calls of foreign reserve assets by the European Central Bank).

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 and a tactical benchmark determined by the Executive Board. 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 tactical benchmark, subject to 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.

The Governing Council has defined the currency distribution of the ECB's foreign reserves, which mainly consist of US dollars but also include Japanese yen, gold and SDRs. The currency distribution is based on optimal currency allocation studies and prospective operational needs, and the Governing Council may change it if and when it deems this appropriate. The ECB's gold assets continue not to be managed actively, in line with the Central Bank Gold Agreement of 26 September 1999. This agreement stipulates, among other things, that the signatories will not increase their activity in gold lending, futures and options 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.

Since its launch, this framework has functioned satisfactorily, and work is continuously undertaken to enhance portfolio and risk management techniques. The introduction of money market and bond futures for managing the foreign exchange reserves – in line with the gradual extension of the range of investment instruments used and to improve the efficiency with which positions are taken – was successfully completed in the first quarter of 2002.

Data on international reserves and foreign currency liquidity are published monthly for both the ECB and the Eurosystem on the ECB's website, with a one-month lag, in line with the IMF's Special Data Dissemination Standard. This complements the information provided by the consolidated financial statement of the Eurosystem, which is published weekly on the ECB's website.

2.3 Own funds management

The principal purpose of the ECB's capital is to provide the ECB with a reserve to meet possible losses. Furthermore, in managing the ECB's own funds, the objective should be to generate earnings in excess of the weighted average rate of allotment in the MROs over the long term.

At the end of 2002 the ECB's own funds portfolio amounted to €5.6 billion, compared with €4.8 billion at the end of 2001. This change partly reflects the transfer of part of the ECB's total operating profit for 2001 to the general reserve fund, which forms a part of the own funds. Apart from the increase in the general reserve fund, the change in the size of the own funds portfolio during 2002 also reflected the interest income earned and the change in the market value of the assets in the portfolio.

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 their purpose 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 futures and direct securities lending transactions were added to the eligible instruments in 1999, and an automatic securities lending programme for own funds was implemented in 2001. In addition, the ECB continued in 2002 to diversify its fixed-income investments towards high-quality non-sovereign issuers, with the aim of improving the risk/return profile of the own funds portfolio.

2.4 Organisation of the ECB's foreign reserves and own funds management

In December 2001 the ECB's portfolio management activities were partially reorganised by the Executive Board, with the measures taking effect from 1 January 2002. The foreign reserve and own funds management activities of the ECB were brought together in a single Division, with a view to both maximising the synergies between these two areas and further strengthening the Chinese wall between monetary policy operations and investment activities.

Besides the strengthened Chinese wall, further arrangements have been put in place to ensure that the ECB's investment activities do not interfere with the ECB's monetary policy. First, there is no active foreign currency trading and, second, the ECB's own funds are managed on a semi-passive basis to avoid generating any signals that could be misconstrued as being monetary policy-related, especially if money market transactions are involved.

In addition to the above-mentioned refinement of the organisational structure, work is under way to enhance the efficiency of the ECB's portfolio management activities, for example, via the introduction of electronic trading platforms. The functionalities of the portfolio management IT system have also been further improved, particularly in the area of collateral management.

Aachen, 9 May 2002

Willem F. Duisenberg, President of the ECB, receives the International Charlemagne Prize of Aachen 2002 on behalf of the euro at the award ceremony in Aachen's historic city hall

Chapter III

Risk management

1 Overview

The ECB has a risk management framework to measure, monitor and report all risks resulting from the financial and policy operations incurred by the ECB directly or by the 12 NCBs of the Eurosystem on behalf of the ECB. The ECB risk management function is responsible for the integration of the entire process of policies, procedures and systems that the ECB has in place to manage these risks.

The risk management framework of the ECB focuses on two main areas: policy operations and investment operations. The former focuses on the risk associated with the Eurosystem's monetary policy and payment systems operations (principally through the provision of intraday liquidity via the TARGET system). The latter focuses on the risks associated with the management of foreign reserve assets and the ECB's own capital funds.

To avoid conflicts of interest, and in line with best practices, the process of measuring, monitoring and reporting risk in the ECB is coupled with a direct reporting line to the Executive Board separate from the risk-taking functions.

The risk management framework of the ECB operated efficiently in 2002, continuing the overall positive performance since the start of Monetary Union. This success reflects the ECB's commitment to building and maintaining a strong, proactive risk management culture, which is essential to its reputation and credibility in the long term.

2 Policy operations

In policy operations (i.e. monetary policy or payment systems credit operations), the Eurosystem incurs a risk when entering into a transaction with a counterparty which may be unable to meet its credit obligations. This credit risk is mitigated by the requirement of adequate collateral to guarantee the credit provided. Although the collateralisation of the credit minimises the risk of financial loss due to the default of the counterparty, it does not completely eliminate it. Collateralisation transforms credit risk into market and liquidity risks or, in other words, the risk of realising the collateral with a loss after an adverse market movement or a liquidity event. The risk control framework put in place aims to manage effectively the potential market and liquidity risks to which the Eurosystem could be exposed when realising the collateral pledge by a counterparty which defaults on a policy operation.

The framework also places strong emphasis on the credit quality assessment of the collateral eligible for policy operations, as this is essential to mitigate credit risk. All assets used as eligible collateral in Eurosystem credit operations have to fulfil certain common criteria, as laid down in the collateral framework. An important criterion of eligibility is that assets used as collateral in Eurosystem credit operations must meet high credit standards. The ECB risk management function is responsible for assessing and monitoring the different sources of credit risk information used by the Eurosystem in the assessment of the credit standards used to grant eligibility to financial assets. In addition, it is responsible for advising on the minimum required level of credit quality of new asset classes that from time to time are proposed for inclusion in the eligible collateral pool of the Eurosystem.

Owing to the differences in the financial structure from one Member State to another and for purposes internal to the Eurosystem, a distinction is made between the two categories of assets eligible for Eurosystem credit operations. These two categories are referred to as "tier one" and "tier two" (see Chapter II).

3 Risk management framework of policy operations

The framework for managing the risks associated with the Eurosystem's policy operations has three main components, namely the risk control of collateral, the valuation principles and the credit risk assessment of collateral.

Risk control of collateral

Tier one and tier two assets are both subject to risk control measures. These are applied to the assets used as collateral in Eurosystem credit operations in order to protect the Eurosystem against the risk of financial loss if the collateral has to be realised owing to the default of a counterparty. By realising the collateral, the Eurosystem recovers the liquidity provided. It is in this situation that the Eurosystem incurs market and liquidity risks associated with the collateral. To control these risks, the Eurosystem continued to have initial margins, valuation haircuts, variation margins, limits in relation to issuers/debtors or guarantors, as well as additional guarantees, at its disposal in 2002, and made use of the first three of these tools over the period.

To obtain an adequate level of risk control, an evaluation, in line with best market practices, of parameters such as current and potential price developments and related price volatilities is performed. 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.

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. Initial margins are applied to the credit amount. Symmetric margin calls, or variation margins, are made whenever the collateral does not match the collateral value requirements. Margin calls can be met either by supplying additional assets or by means of cash payments.

For tier one assets, three haircut groups were once again used in 2002: 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 exist for tier two assets, reflecting differences in their intrinsic characteristics and liquidity. In 2002 work was under way to incorporate liquidity risk in the valuation haircuts of tier one assets.

Valuation principles

The assets used as collateral are subject to a daily valuation and NCBs calculate the required value of underlying assets on a daily basis, taking into account the valuation principles required by the Eurosystem.

For marketable tier one and tier two assets, a single reference market is selected as the price source. This defines the most representative price on the reference market. This reference price source is used to value the collateral in a marked-to-market approach. If more than one price is quoted, the lowest of these prices is used. For non-marketable tier two assets or for those marketable assets which are not normally traded, so that marking to market is not possible, a mark-to-model strategy, based on present-value discounting of future cash flows, has been implemented. 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. In 2002 work commenced to enhance the valuation methods in order to satisfy the need for daily valuation of collateral using representative valuations. In this future valuation scheme, special attention will be paid to the enhancement of theoretical valuation methods and to checks to be performed to ensure a representative valuation when using market prices.

Credit risk assessment

Assets used as collateral in Eurosystem credit operations must meet high credit standards. High credit quality collateral is required to mitigate the credit risk of the counterparty borrowing liquidity from the Eurosystem. When the collateral considered is default-risk-free (e.g. government bonds), collateralisation is a way to transform credit risk into market risk (managed with risk controls as described above) as the default-risky counterparty provides a default-risk-free asset to guarantee its position. Even when the collateral itself can be defaultable (as with corporate bonds), the credit risk is strongly mitigated if the credit quality of the bonds is sufficiently high.

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 acts as the assessor arm of the Eurosystem in the analysis of eligibility of rating companies that rate collateral. The ECB applies a number of criteria in the assessment process in which independence and credibility are key elements. The ECB also monitors the assessment provided by NCBs' credit assessment systems and, from time to time, by national rating companies which rate national tier two assets. In 2002 the ECB continued its effort to improve the comparability of the different sources of credit assessment used to rate collateral and the analysis of new sources of credit assessment information, following the foreseeable impact of the Basel Committee's proposals on the new Basel Capital Accord.

4 Investment operations

The ECB has two kinds of investment: first, a reserve portfolio consisting of foreign currency reserves, gold and special drawing rights (SDRs) and, second, a euro investment portfolio (the ECB's "own funds"). In these investment activities, the ECB is exposed to a range of risks. In investment operations the ECB incurs market risks arising from adverse movements in interest rates, exchange rates and other asset prices such as gold. In addition, the ECB is exposed to liquidity risk. Liquidity risk is a major consideration for the foreign reserve asset portfolio, a primary objective of which is the availability of highly liquid assets for potential use in an intervention in currency markets. Finally, the ECB's investments are exposed to credit risk. The risk control framework of the ECB for investment operations lays down the policies, systems and tools to manage these risks.

The foreign currency reserves are denominated in US dollars and Japanese yen and are actively managed on behalf of the ECB by the NCBs of the Eurosystem. The main objective of holding this portfolio is its potential use in an intervention in the currency markets. Gold positions are not actively managed, in line with the Central Bank Gold Agreement of 26 September 1999.

The ECB's "own funds" (i.e. the domestic portfolio) is managed by a portfolio management team at the ECB. These investments are designed to provide the ECB with a reserve to meet possible losses and to generate earnings over the long term on the funds invested, in excess of the average main refinancing rate of the ECB.

The ECB's financial health and reputation are dependent on the appropriate management of the investment portfolio. A risk management structure independent from the "risk-taking" unit is in place. The independence of the risk management function is built into the organisational structure of the ECB.

5 Risk management framework for investment operations

The framework for managing the risks associated with the ECB's investment operations has three interrelated components, namely risk management measures, the analysis of investment performance and the analytical framework for asset allocation.

Risk management measures and compliance

As the ECB is exposed to market, credit and liquidity risk, the exposures to these risks and compliance with the risk parameters are monitored daily. This independent monitoring is integral to the investment framework. The main measures of market risk observed are modified duration and Value at Risk. Compliance with a range of counterparty and asset class limits is part of the ECB's credit risk management system. All eligible counterparties must meet minimum rating criteria and satisfy certain operational constraints. The liquidity profile of the investments is also monitored daily. All eligible assets must meet agreed liquidity criteria. Clear procedures are in place for reporting and dealing with any breaches of the framework.

In 2002 efforts continued on the creation of a comprehensive IT platform to bring together all the risk management applications and complement the current treasury system. Finally, as the investment universe has widened for the ECB, and in line with developments in the asset management industry, work has commenced on the setting and allocation of relative VaR limits to portfolio managers. Operationalisation of this concept will place new demands on both the risk managers and the portfolio managers.

Analysis of investment performance

The measurement and analysis of performance forms a large part of the risk management work. Monthly performance is calculated for all portfolios. In addition, more detailed and analytical semi-annual and annual performance reports are prepared and submitted to the Governing Council.

The sources of performance relative to the investment benchmarks are also identified and provide useful feedback to the portfolio managers. Aggregating these data over longer periods allows more detailed conclusions to be drawn. This analysis can also be useful for policy-makers in deciding on any modification to the investment framework. The use of various asset classes and differing credit positions within portfolios is also analysed to deepen the understanding of performance. Work is under way on further enhancements and a refinement of the performance attribution system. This will enrich the ex post analysis of performance and allow policy-makers to reflect on clear trends and patterns.

Analytical framework for asset allocation

This framework of asset allocation is the cornerstone of the ECB investment process.

The primary focus is on an optimal currency distribution of the foreign currency reserves and an optimal asset allocation for each currency portfolio. All of the above are reflected in strategic benchmarks which are designed to reflect the long-term risk return preferences of the ECB. The benchmarks are crucial to the investment performance of the ECB as they are the main determinants of the returns earned.

The goal of asset allocation is to maximise the return, subject to pre-agreed constraints. Considerable resources are devoted to the development of the methodology used in the asset allocation process. For the 2002 review, a purpose-built econometric model was used to derive the expected returns on asset classes for use in the optimisation exercise. Given the importance of the asset allocation exercise to the ECB, the methodology is subject to periodic reviews and continuous improvements are sought.

13 May 2002

Young people visiting the ECB

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

There was a moderate upturn in the Danish economy in 2002, with real GDP growing by 1.6%, up from 1.4% in 2001 (see Table 11). Real GDP growth in 2002 was primarily driven by domestic demand, most notably private consumption, which rose in line with higher real disposable income. The Whitsun package of 1998, a tax reform package which was mainly designed to increase private saving, became fully implemented in 2002. Real house price developments had no major impact on private consumption, whereas the decline in stock prices had a limited negative wealth effect. Fixed investment, particularly in transport and machinery, and public consumption also contributed to growth during the year. Although the contribution of net exports to real GDP growth moderated in 2002, the continued buoyancy of exports is noteworthy against the background of sluggish world demand. The unemployment rate remained low at 4.5%.

Against the background of a tight labour market and higher energy prices, HICP inflation remained at around 2.4% for most of the year, apart from a peak in November when it reached 2.8%. Average annual HICP

Table 11

Macroeconomic indicators for Denmark

(annual percentage changes, unless otherwise indicated)

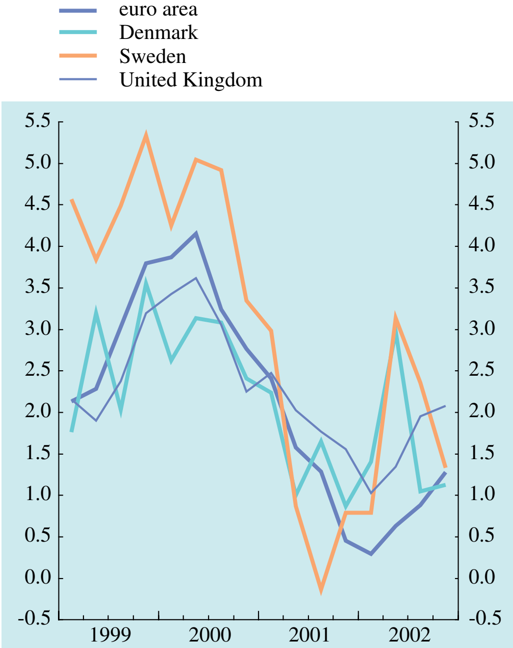
	1997	1998	1999	2000	2001	2002	2002 Q1	2002 Q2	2002 Q3	2002 Q4
Real GDP	3.0	2.5	2.6	2.8	1.4	1.6	1.2	3.0	1.1	0.9
Contribution to real GDP growth: [1]										
Real domestic demand including stocks	4.6	3.9	0.1	1.9	0.7	1.0	0.8	1.5	1.1	0.8
Net exports	-1.7	-1.4	2.6	0.9	0.7	0.5	0.5	1.6	-0.0	0.1
HICP	1.9	1.3	2.1	2.7	2.3	2.4	2.5	2.1	2.4	2.7
Compensation per employee	3.2	3.3	3.6	3.5	5.0	3.4	4.5	3.4	2.8	3.1
Unit labour costs, whole economy	1.8	2.5	2.4	1.7	3.4	1.1	2.3	0.5	0.9	0.8
Import deflator (goods and services)	2.2	-2.5	-2.4	9.6	2.5	-0.6	1.4	-1.7	-1.3	-0.9
Current plus new capital account (% of GDP) [2]	0.5	-0.9	2.4	1.5	3.1	2.9	2.7	3.3	3.8	1.8
Total employment	1.3	1.6	1.2	0.9	-0.3	-0.7	-0.9	0.1	-0.8	-1.4
Unemployment rate (% of labour force)	5.3	4.9	4.8	4.4	4.3	4.5	4.3	4.4	4.6	4.7
Fiscal balance (% of GDP) [3), 4]	0.4	1.1	3.3	2.6	2.8	1.9	.	.	.	.
Consolidated gross debt (% of GDP) [3]	61.2	56.2	53.0	47.4	45.4	45.2	.	.	.	.
Three-month interest rate (% per annum) [5]	3.7	4.1	3.3	4.9	4.6	3.5	3.6	3.7	3.5	3.2
Ten-year government bond yield (% per annum) [5]	6.3	4.9	4.9	5.6	5.1	5.1	5.2	5.4	4.9	4.7
Exchange rate against the ECU or euro [5), 6]	7.48	7.50	7.44	7.45	7.45	7.43	7.43	7.43	7.43	7.43

Sources: Eurostat, European Commission, national data and ECB calculations.
1) Percentage points.
2) Quarterly figures are neither seasonally adjusted or working day adjusted.
3) Consistent with the Maastricht Treaty definition.
4) General government surplus (+) / deficit (-).
5) Average of period values.
6) Units of national currency per ECU until the end of 1998; thereafter, per euro.

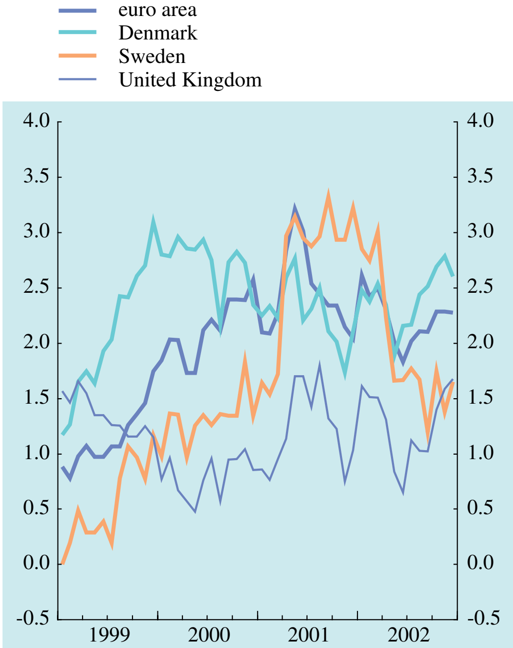
Chart 31

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

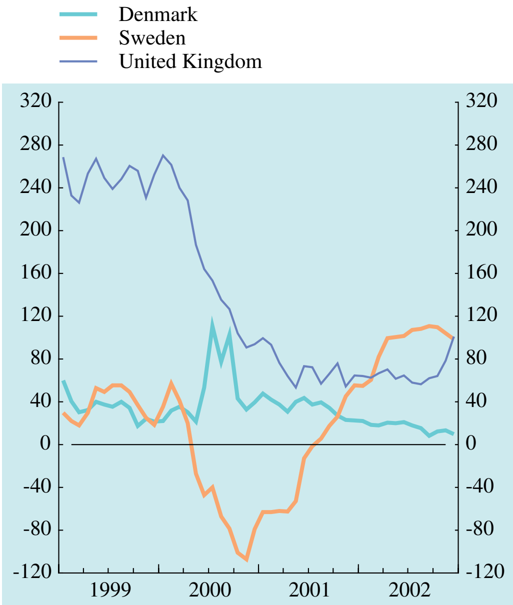
Real GDP growth
(annual percentage changes)



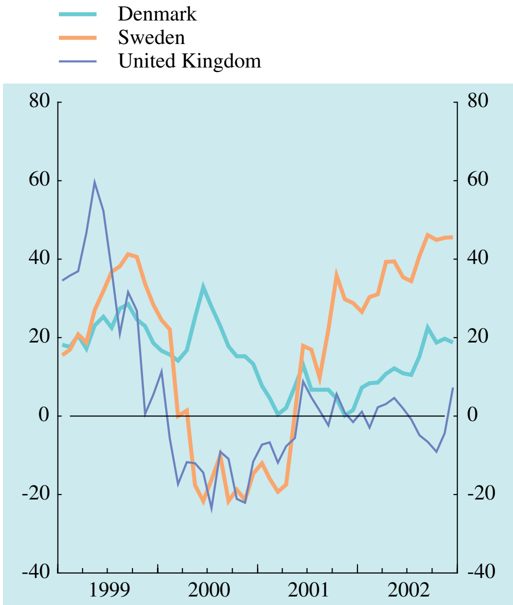
HICP inflation
(annual percentage changes)



Short-term interest spread vis-à-vis the euro area 1)
(in basis points)



Long-term interest spread vis-à-vis the euro area 2)
(in basis points)

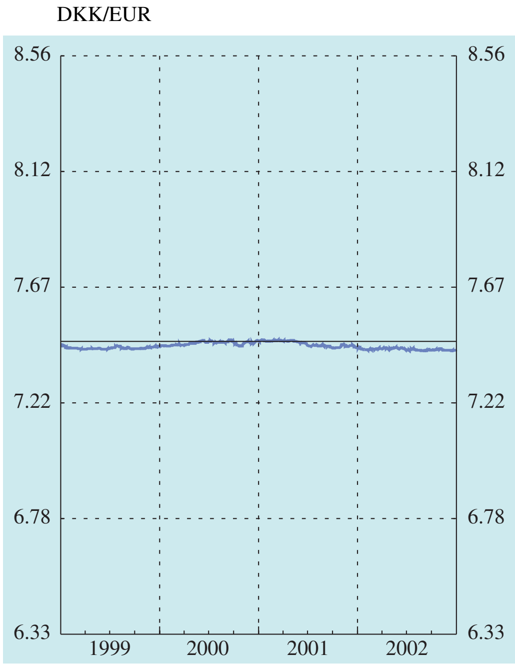


Sources: ECB and Eurostat.
1) *For the non-euro area countries: three-month interbank rates; for the euro area: three-month EURIBOR.*
2) *Long-term government bond yields, ten-year bonds or closest available bond maturity.*

Chart 32

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

Danish krone



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

Swedish krona

Pound sterling

inflation stood above that in the euro area, mainly due to a rise in prices for education and other services (see Chart 31). Raising the labour supply continues to be significant in helping to ease wage pressures, although increases in unit labour costs moderated compared with 2001, largely due to the recovery in labour productivity. Developments in real effective exchange rates indicate that Danish competitiveness relative to the euro area remained broadly stable in 2002.

Public finances remained sound in 2002. The general government surplus stood at 1.9% of GDP, 1 percentage point lower than in the previous year. About half of this decline reflects an accounting effect of pension reform. Moreover, corporate income tax receipts fell moderately. Government debt continued to decline slightly, from 45.4% of GDP in 2001 to 45.2% in 2002. The supplement to the updated Danish Convergence Programme targets budgetary surpluses of 1.9% and 2.4% of GDP in 2003 and 2004 respectively. The balance for 2003 is 0.2 percentage point lower than envisaged in the previous update, largely owing to statistical revisions and higher unemployment. The gross debt ratio is expected to decline to 42.1% of GDP in 2003 and 39.2% in 2004.

Denmark is currently the only country participating in ERM II. It continues to pursue a fixed exchange rate policy vis-à-vis the euro, maintaining a narrow band of ±2.25% around its ERM II central rate of DKK 7.46038 against the euro. 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 Danish krone remained very close to central parity in ERM II during 2002, holding a level marginally stronger than its central rate (see Chart 32). On 29 August the krone reached DKK 7.424, its strongest level of the year vis-à-vis the euro. Foreign exchange reserves increased to their highest level in the third quarter of 2002, declining slightly towards the end of the year. One reason for the recent strength of the krone stems from the sale of foreign stocks by Danish pension funds in order to reduce their overall risk levels in the face of declines in global stock prices.

In 2002, Danmarks Nationalbank reduced its lending rate four times, resulting in a decline of the spread over the minimum bid rate on the ECB's main refinancing operations to 20 basis points. In view of a substantial inflow of foreign capital, Danmarks Nationalbank lowered its lending rate by 0.05 percentage point on 1 February, 9 August and 30 August, reducing the lending rate from 3.60% to 3.45%. On 5 December, the lending rate was reduced by 0.5 percentage point, in line with the key ECB interest rate reduction of the same magnitude, to 2.95%. Short-term interest rates in Denmark declined during 2002, slightly more than in the euro area, narrowing the spread between Danish and euro area short-term market rates to around 10 basis points in December (see Chart 31). Long-term bond yields fluctuated around an average of 5.1%, while the spread vis-à-vis the euro area increased to close to 20 basis points later in the year.

Sweden

Real GDP growth in Sweden increased in 2002 amid the global slowdown and the weakness of financial markets (see Chart 31). Real GDP grew by 1.9%, compared with 1.1% in 2001 (see Table 12). Real GDP growth was mainly sustained by net exports in the first half of 2002. Export growth, which strengthened at the end of 2001 and at the beginning of 2002, slowed down over the year, reflecting the weak global recovery. Nevertheless, on account of weaker import growth the contribution to growth from net exports strengthened in the year as a whole. In the second half of 2002 private consumption recovered well, despite the sizeable stock market decline in the summer. This can mainly be explained by higher real disposable income due to tax cuts, low interest rates, rising house prices and low

Table 12

Macroeconomic indicators for Sweden

(annual percentage changes, unless otherwise indicated)

	1997	1998	1999	2000	2001	2002	2002 Q1	2002 Q2	2002 Q3	2002 Q4
Real GDP	2.4	3.6	4.6	4.4	1.1	1.9	0.8	3.1	2.4	1.3
Contribution to real GDP growth: 1)										
Real domestic demand including stocks	1.0	3.9	3.0	3.4	0.0	0.6	-1.9	0.5	1.8	2.0
Net exports	1.4	-0.3	1.5	0.9	1.1	1.3	2.7	2.7	0.5	-0.6
HICP	1.8	1.0	0.6	1.3	2.7	2.0	2.9	1.9	1.5	1.6
Compensation per employee	4.7	2.6	1.2	7.0	5.0	3.9	5.1	3.6	3.7	3.1
Unit labour costs, whole economy	0.9	0.5	-1.1	5.0	5.8	2.1	4.7	0.8	1.4	1.7
Import deflator (goods and services)	0.7	-0.5	1.1	4.5	4.7	0.4	2.0	0.4	-0.1	-0.7
Current plus new capital account (% of GDP) 2)	.	3.6	2.6	3.8	3.8	4.2	5.5	5.3	4.1	1.8
Total employment	-1.1	1.5	2.2	2.2	2.0	0.1	0.2	0.1	-0.0	0.0
Unemployment rate (% of labour force)	9.9	8.2	6.7	5.6	4.9	4.9	4.9	4.9	4.9	5.1
Fiscal balance (% of GDP) 3), 4)	-1.5	1.9	1.5	3.4	4.5	1.2	.	.	.	.
Consolidated gross debt (% of GDP) 3)	73.1	70.5	62.7	52.8	54.4	52.4	.	.	.	.
Three-month interest rate (% per annum) 5)	4.4	4.4	3.3	4.1	4.1	4.3	4.0	4.5	4.4	4.1
Ten-year government bond yield (% per annum) 5)	6.6	5.0	5.0	5.4	5.1	5.3	5.4	5.6	5.2	5.0
Exchange rate against the ECU or euro 5), 6)	8.65	8.91	8.81	8.45	9.25	9.16	9.16	9.16	9.23	9.10

Sources: Eurostat, European Commission, national data and ECB calculations.
1) Percentage points.
2) Quarterly figures are neither seasonally adjusted or working day adjusted.
3) Consistent with the Maastricht Treaty definition.
4) General government surplus (+) / deficit (-).
5) Average of period values.
6) Units of national currency per ECU until the end of 1998; thereafter, per euro.

unemployment. Public consumption and public investment also increased considerably in the second half of the year. Private investment and industrial activity, however, generally remained subdued throughout the year. Changes in inventories resulted in a slight negative contribution to real GDP growth for 2002 as a whole. Employment growth moderated significantly, although it remained relatively high in the construction and public sectors. The total number of hours worked declined, partly reflecting a rapid increase in absence from work on account of illness. The unemployment rate remained close to 5% throughout the year.

Annual inflation rates, as measured by the HICP, the CPI and UNDIX[1], continued to moderate in 2002 (see Chart 31). This reflected both base effects associated with price increases in 2001 and receding cost pressures. Annual average HICP inflation was 2.0% in 2002, down from 2.7% in 2001, while the CPI rose by 2.4%, compared with 2.6% in 2001.[2] Unit labour cost growth moderated to 2.1%, compared with 5.8% in 2001, largely due to the recovery in labour productivity.

The general government fiscal surplus decreased drastically from 4.5% of GDP in 2001 to 1.2% of GDP in 2002. Tax cuts of approximately 1% of GDP, some expenditure increases and the fiscal effects of below-trend GDP growth contributed to this decline, as did the absence of positive carry-over effects from previous years, which had heavily affected the budgetary outcome in 2001. The

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. As transient factors have had an impact on the forecast in recent years, monetary policy decisions have in practice been based on an assessment of UNDIX.*

2 *The reason behind the increased difference between CPI and HICP in Sweden is the introduction of a ceiling price for child-care, included in the HICP but not in the CPI, as of 1 January 2002, which reduces HICP inflation by around 0.4 percentage point.*

debt-to-GDP ratio decreased from 54.4% in 2001 to 52.4% in 2002. The updated Swedish Convergence Programme targets budget surpluses of 1.5% and 1.6% of GDP in 2003 and 2004 respectively. This surplus is still in line with the Swedish fiscal rule to maintain a surplus of around 2% over the business cycle due to higher surpluses in previous years. However, the last stage of the income tax reform has been deferred to avoid lower surpluses. The debt-to-GDP ratio is projected to fall to 50.9% in 2003 and to 49.3% in 2004.

Sveriges Riksbank operates under a flexible exchange rate regime. The objective of monetary policy is expressed as an explicit inflation target of a 2% increase in the CPI with a tolerance margin of ±1 percentage point. Sveriges Riksbank raised the repo rate by 0.25 percentage point on both 19 March and 26 April 2002, to 4.25%, against the background of relatively high resource utilisation and a favourable outlook for a global recovery, which increased the risk of the inflation target of 2% being exceeded. In the autumn, however, following heavy stock market declines, increased uncertainty about the global recovery and depressed industrial activity, Sveriges Riksbank lowered the repo rate by 0.25 percentage point on both 15 November and 5 December 2002 owing to an increased risk that future inflation would be below the target. Reflecting these changes in the official interest rate, the spread between short-term market interest rates in Sweden and the euro area continued to widen in the first half of 2002, to around 100 basis points, while it remained broadly stable in the second half of the year (see Chart 31). Long-term interest rates were in line with developments in the global bond markets throughout the year and the differential with the euro area widened slightly, to around 50 basis points at the end of 2002. The krona, which fluctuated between around SEK 9 and SEK 9.5 per euro in 2002, was periodically affected by developments in the financial markets and speculation over Sweden's adoption of the euro (see Chart 32). The krona ended the year around 1.5% stronger against the euro than at the beginning of 2002.

United Kingdom

In the wake of a marked slowdown in the world economy, average real GDP growth in the United Kingdom slowed to 1.6% in 2002, compared with 2.0% in 2001 (see Table 13). However, following a subdued growth rate at the beginning of 2002, the UK economy grew at more significant rates during the rest of the year, with private consumption and public spending as key drivers.

Compared with the previous year, growth in real household consumption remained broadly stable at 3.9% in 2002, despite a slowdown in real disposable income growth and the decline in stock prices. Growth in private consumption remained buoyant owing to accelerating gains in house prices, continued increases in employment and vigorous credit expansion. Output growth was also supported by an acceleration in public consumption, from 2.3% in 2001 to 4.2% in 2002, broadly in line with the Government's spending targets. Gross fixed capital formation fell by 4.5%, down from a 0.8% increase in 2001. Fragile confidence in the prospects for external demand and an increase in the cost of capital associated with declines in global stock markets are likely to have reduced corporate incentives to increase capital spending. The fall in business investment was partly compensated for by an acceleration in government investment, reflecting plans to upgrade the public sector's capital stock. For the seventh year in a row, net exports made a negative contribution (1.0 percentage point) to real GDP growth in 2002. Exports fell by 1.4% following an increase of 0.9% in 2001. However, the composition of aggregate demand growth continued to restrain import growth, which slowed to 1.2% in 2002.

The overall labour market picture remained broadly stable, with the unemployment rate edging up to 5.2% in 2002. Total employment continued to rise at a rate similar to that in 2001, helped by a strong increase in the number of jobs in the public sector. The cyclical slowdown in 2001 and early 2002

Table 13

Macroeconomic indicators for the United Kingdom

(annual percentage changes, unless otherwise indicated)

	1997	1998	1999	2000	2001	2002	2002 Q1	2002 Q2	2002 Q3	2002 Q4
Real GDP	3.4	2.9	2.4	3.1	2.0	1.6	1.0	1.3	2.0	2.1
Contribution to real GDP growth: [1]										
Real domestic demand including stocks	4.0	5.1	3.8	4.1	2.6	2.6	2.6	1.9	2.6	3.1
Net exports	-0.5	-2.2	-1.4	-1.1	-0.6	-1.0	-1.6	-0.6	-0.7	-1.0
HICP	1.8	1.6	1.3	0.8	1.2	1.3	1.5	0.9	1.1	1.6
Compensation per employee	4.3	5.3	4.0	4.7	5.2	.	2.8	3.2	.	.
Unit labour costs, whole economy	2.8	3.5	3.1	2.9	4.0	.	2.4	2.6	.	.
Import deflator (goods and services)	-7.1	-6.2	-2.5	0.7	-0.1	.	-3.6	-2.8	-1.3	.
Current plus new capital account (% of GDP) [2]	-0.1	-0.5	-2.1	-1.8	-1.5	.	-0.5	-1.9	-0.2	.
Total employment	2.0	1.2	1.5	1.3	0.8	.	0.6	0.8	.	.
Unemployment rate (% of labour force)	6.9	6.2	5.9	5.4	5.0	.	5.1	5.1	5.2	.
Fiscal balance (% of GDP) [3), 4]	-2.2	0.2	1.1	1.6	0.8	-1.4	.	.	.	.
Consolidated gross debt (% of GDP) [3]	50.8	47.7	45.1	42.1	39.0	38.6	.	.	.	.
Three-month interest rate (% per annum) [5]	6.8	7.3	5.4	6.1	5.0	4.0	4.0	4.1	3.9	3.9
Ten-year government bond yield (% per annum) [6]	7.1	5.6	5.0	5.3	5.0	4.9	5.1	5.3	4.7	4.5
Exchange rate against the ECU or euro [7]	0.69	0.67	0.66	0.61	0.62	0.63	0.61	0.63	0.64	0.64

Sources: Eurostat, European Commission, national data and ECB calculations.
1) *Percentage points.*
2) *Quarterly figures are neither seasonally adjusted nor working day adjusted.*
3) *Calendar year estimates. Consistent with the Maastricht Treaty definition.*
4) *Calendar year estimates. General government surplus (+) / deficit (-).*
5) *Average of period values. three-month sterling interbank deposits.*
6) *Average of period values. Source: BIS.*
7) *Average of period values. Units of national currency per ECU until the end of 1998; thereafter, per euro.*

appears to have affected the labour market through a reduction in the number of hours worked and a slowdown in the growth of compensation per employee.

RPIX inflation remained below the Government's target of 2.5% for almost the whole year, at an average rate of 2.2%, which was broadly similar to the previous year.[3] However, RPIX inflation rose above the target in November and December as a consequence of increases in petrol prices and in the housing cost component. HICP inflation, averaging 1.3% throughout the year, was considerably lower than RPIX inflation, partly due to the fact that the strongly increasing housing cost component of the RPIX is not included in the HICP index. The divergence between developments in services and goods prices widened further in 2002. Services price increases picked up whereas weak demand and strong competition in global markets continued to exert downward price pressures on the more exposed goods sectors. At the same time, annual growth in unit labour costs in the economy as a whole remained broadly stable on average compared with the previous year. Overall, cost pressures seem to have remained rather subdued.

Following the sizeable improvement in the general government budget in previous years, the surplus began to decline, to 0.8% of GDP in 2001, and fell further to a deficit of 1.4% of GDP in 2002. This decline was the result of a significant increase in government expenditure, contributing to an expansionary fiscal stance and a strong fall in direct tax revenues. Corporation tax revenues, in particular, were lower than expected, especially for the financial services sector. The debt-to-GDP ratio fell slightly, from 39%

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

in 2001 to 38.6% in 2002. The updated Convergence Programme targets a budgetary deficit of 1.8% and 2.2% of GDP in 2002/03 and 2003/04 respectively. The gross debt ratio is expected to increase slightly from 37.9% of GDP in 2002/03 to 38.8% in 2003/04.

The Bank of England conducts monetary policy within a flexible exchange rate regime with an explicit inflation target, set by the Government as an annual increase in the RPIX of 2.5%. In 2002, the official repo rate remained unchanged at 4.0%. In February 2003 it was reduced to 3.75%. The short-term interest rate differential vis-à-vis the euro area fluctuated around 60 basis points throughout 2002, increasing somewhat in December after the ECB cut its key interest rates (see Chart 31). Ten-year government bond yields fluctuated around their level of 2001, and ended the year slightly above the euro area level. The pound sterling exchange rate depreciated slightly against the euro during the year (see Chart 32). Sterling's initial depreciation vis-à-vis the euro in May and June, possibly associated with speculation over the United Kingdom's euro adoption and a sharp appreciation of the euro against the US dollar at that time, was partially reversed during the third quarter, although it depreciated again in the last quarter of the year.

Old and new Vice-Presidents of the ECB,
Christian Noyer (left)
and Lucas Papademos

Farewell reception for Vice-President
Christian Noyer on 28 May 2002

Chapter V

European and international co-operation

1 European issues

In 2002 the ECB continued to maintain its regular contact with Community institutions and relevant bodies.[1] ECB representatives attended meetings of the ECOFIN Council when matters relating to the tasks and objectives of the ESCB were discussed. In 2002 such matters related to financial stability, regulation and supervision, and the implementation of the Stability and Growth Pact (SGP). At the same time, the President of the ECOFIN Council made use of his right to participate in meetings of the Governing Council on several occasions. In this context, it should be noted that, during the second half of 2002, when the EU Council Presidency was held by a Member State with a derogation (Denmark), 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.

The President of the ECB and the governors of the NCBs were also invited to the two informal meetings of the ECOFIN Council which took place in Oviedo (Spain) in April and in Copenhagen (Denmark) in September 2002. Both meetings involved discussions concerning European financial market integration, stability, regulation and supervision. In addition, the meeting in Oviedo provided the participants with an opportunity to exchange views on issues of corporate governance and international financial matters. The informal ECOFIN Council meeting in Copenhagen concentrated on, inter alia, enlargement and international financial architecture issues.

In line with past practice, the ECB continued to attend meetings of the Eurogroup on a regular basis. Participation in these meetings provides an opportunity for the ECB to engage in an open and informal policy dialogue with the finance ministers of the euro area countries and the Commissioner for Economic and Monetary Affairs. Discussions within the Eurogroup concentrated on the overall economic outlook for the euro area and budgetary developments in individual euro area countries. A further focus, especially in the first half of 2002, was the regular monitoring of the progress of the changeover to the euro banknotes and coins. In addition, the Eurogroup continued to discuss the progress in necessary structural reforms.

In addition to the relations at the political level described above, the ECB continued its participation in the meetings of the Economic and Financial Committee (EFC) and the Economic Policy Committee (EPC), which were also attended by NCBs. 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 (BEPGs) 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, contributing to this work provides the ECB not only with a useful insight into the process of structural reform, 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

1 *The ECB's relations with the European Parliament are dealt with separately in Chapter XII.*

European Commission, the ECB, the 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.

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

1.1 Implementation of the Stability and Growth Pact

Against a backdrop of worsening budgetary developments and prospects, 2002 proved to be a testing year for the implementation of the SGP.

In 2001 both Germany and Portugal missed by a wide margin their targets for the general government balance as set out in their respective stability programmes. Perceiving a risk of excessive deficits in these countries, on 30 January 2002 the Commission issued Recommendations for Council Recommendations with a view to giving early warnings to Germany and Portugal. In so doing, the Commission initiated, for the first time, the early warning procedure foreseen in Council Regulation (EC) No. 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and co-ordination of economic policies. In response, both Germany and Portugal gave firm political commitments to take the measures necessary to avoid a breach of the 3% of GDP reference value and to achieve close-to-balance budgetary positions by 2004. In the light of these commitments, the ECOFIN Council, at its meeting on 12 February, considered that the German and Portuguese Governments had responded effectively to the concerns expressed by the Commission in its recommendations and decided to close the two procedures.

On 21 June 2002 the Council adopted its Recommendation for the Broad Economic Policy Guidelines of the Economic Policies of the Member States and the Community. With regard to budgetary policies, the BEPGs called on those Member States which had not yet achieved budget positions close to balance or in surplus to achieve such positions by 2004 at the latest. In line with normal practice, the recommendations contained in the BEPGs were based on underlying assumptions for the future development of the main economic variables set out in the Commission's spring economic forecasts. However, in the following months, economic developments turned out to be significantly worse than projected. As a consequence, for Member States with remaining budgetary imbalances, the attainment of budget positions close to balance or in surplus by 2004 at the latest was no longer realistic in view of the prevailing policy stance and macroeconomic projections. The euro area finance ministers, the President of the ECB, the President of the Commission and the Commissioner for Economic and Monetary Affairs discussed the implications of this at the Eurogroup meeting on 7 October. After this meeting they issued a Eurogroup statement on budgetary developments in the euro area in which the euro area finance ministers re-affirmed their commitment to the Treaty obligation to avoid excessive deficits, and to the SGP objective to achieve and maintain budgetary positions close to balance or in surplus over the economic cycle. Moreover, the Eurogroup concurred with an initiative of the Commission that those countries which had not yet reached that objective needed to pursue continuous adjustment of the underlying budget balance by at least 0.5% of GDP per year. All but one minister agreed that this adjustment should start in 2003.

The worsening of the fiscal outlook during the summer and early autumn also gave rise to an intensified public debate on the rules and implementation of the SGP. Against this background, on 24 October 2002, the Governing Council issued a public statement on the SGP in which it stressed that budgetary difficulties in some Member States had arisen not because of inflexible rules, but rather because of an unwillingness on the part of those Member States to honour their commitment to respect the rules and their failure to use the earlier favourable conditions with higher growth to substantially improve their fiscal positions. Moreover, the Governing Council made clear its support for the Commission's initiative that all countries with remaining budgetary imbalances should commit themselves to implementing a clear budgetary consolidation strategy. This should include a credible adjustment path with a continuous adjustment of the underlying budget balance by at least 0.5% of GDP each year.

During the summer it also emerged that the Portuguese public finances were considerably worse than had been known either when the Council discussed the early warning to Portugal or subsequently during the preparation of the BEPGs. In the context of the 1 September reporting of deficit and debt levels, the Portuguese Government finally reported a general Government deficit for 2001 of 4.1% of GDP, well in excess of the 3% of GDP reference value. The Commission therefore launched an excessive deficit procedure as provided for in Article 104 of the Treaty and further specified in Council Regulation (EC) No. 1467/97. Following the steps foreseen in this procedure, the ECOFIN Council adopted a Decision on the existence of an excessive deficit in Portugal and a Recommendation to Portugal with a view to bringing to an end the situation of an excessive government deficit. In the latter, the Council recommended, inter alia, that the Portuguese Government correct the excessive deficit situation as rapidly as possible. The Council established a deadline of 31 December 2002 for the Portuguese Government to take all necessary measures to bring the excessive deficit to an end. Moreover, the Council recommended that the Portuguese Government adopt and implement the necessary budgetary measures to ensure that the government deficit in 2003 would be further reduced to well below 3% of GDP and that the government debt ratio be kept below the 60% of GDP reference value.

On 13 November, the Commission published its autumn 2002 economic forecasts which foresaw a budget deficit of 3.8% of GDP for Germany in 2002 and of 2.7% for France, rising to 2.9% in 2003. Against this background, on 19 November the Commission initiated an excessive deficit procedure in accordance with Article 104 of the Treaty by publishing a report on the budgetary situation in Germany. On the same day, the Commission also issued a Recommendation for a Council Recommendation to France with a view to giving an early warning to prevent the occurrence of an excessive deficit.

On 21 January 2003 the ECOFIN Council adopted a Decision on the existence of an excessive deficit in Germany and issued a Recommendation to Germany with a view to bringing the situation of an excessive deficit to an end. In the latter, the Council recommended, inter alia, that the German Government put an end to the excessive deficit situation as rapidly as possible. To this end, the German authorities should implement the corrective measures foreseen in their budgetary plans for 2003. The Council established a deadline of 21 May 2003 for these measures to be taken. On 21 January, the ECOFIN Council also issued a Recommendation with a view to giving an early warning to France in order to avoid the occurrence of an excessive deficit.

1.2 Proposals to reinforce economic policy co-ordination and streamline policy co-ordination processes

At its meeting in Barcelona on 15 and 16 March 2002, the European Council called for further progress in the co-ordination of economic policies. To this end, the Heads of State or Government invited the Commission to present proposals to reinforce economic policy co-ordination in time for the 2003

Spring European Council. Moreover, it urged the Council and the Commission to streamline the relevant policy co-ordination process, placing emphasis on action for implementation, rather than on the annual elaboration of guidelines.

On 3 September the Commission issued a Communication presenting proposals to streamline the annual economic and employment policy co-ordination cycles. On 3 December the Council adopted a report which broadly endorsed the proposals of the Commission. The recommendations of the Commission and of the Council for streamlining the economic and employment policy co-ordination cycles include the following. First, there should be a greater focus on the medium term, with full reviews of the BEPGs and the Employment Guidelines and recommendations taking place only every three years instead of each year as at present. Second, there should be a greater focus on annual monitoring of the implementation of guidelines. Third, there should be a single policy co-ordination cycle, according to which the Spring European Council will review policy implementation and give general political orientations, following which a "Guidelines Package" will be prepared, covering both the BEPGs and the Employment Guidelines and recommendations. Moreover, in future, the various reports submitted by the Member States under the Luxembourg and Cardiff processes should be synchronised with a view to streamlining Member States' reporting obligations and avoiding overlaps and duplications. To this end, national implementation reports will be submitted as a package every autumn. However, Member States' stability and convergence programmes are to be kept separate because of their link to national budget cycles.

On 27 November the Commission responded to the Barcelona European Council's request for proposals to reinforce economic policy co-ordination by issuing a Communication to the Council and the European Parliament on strengthening the co-ordination of budgetary policies. In its Communication, the Commission presented the following five proposals for improving the interpretation of the SGP, all of which, in the view of the Commission, could be implemented within the existing legal framework. First, budgetary objectives should be formulated in such a way as to pay greater attention to the economic cycle. To this end, the "close-to-balance or in-surplus" requirement of the SGP should be defined in terms of the underlying balance (defined by the Commission as meaning the budget balance net of transitory effects and particularly of the effects of cyclical fluctuations). Observance of the 3% of GDP reference value would, however, continue to be monitored in nominal terms. Second, Member States whose budgets are still far from being close to balance or in surplus would be required to achieve an annual improvement of the underlying budget position of at least 0.5% of GDP each year. This proposal is in line with the Eurogroup statement of 7 October (see above). Third, pro-cyclical budgetary policies should be avoided during economic upturns. Fourth, under certain specific conditions, and provided that the 3% of GDP reference value is not endangered, a small deviation from the close-to-balance or in-surplus requirement could be permitted. The sole purpose of any such deviation would be to allow a Member State to finance structural reforms, which would raise employment and growth potential, and hence strengthen the underlying budgetary position over the medium term. And, fifth, greater weight should be attached to the assessment of government debt ratios in the budgetary surveillance process. In addition to these proposals, the Commission also outlined a four-point programme of measures to ensure their effective implementation. First, at the forthcoming Spring European Council, the Member States should reaffirm their political commitment to the SGP in a "Resolution to reinforce the co-ordination of budgetary policies". Second, with a view to improving the quality and timeliness of government finance statistics, the ECOFIN Council should adopt a "Code of best practices on the reporting of budgetary data". Third, the enforcement procedures of the SGP should be made more effective, in particular by clarifying more precisely the circumstances under which these procedures will be initiated. And, fourth, openness and transparency should improve the communication of budgetary policies.

In his statement following the Governing Council meeting of 5 December, the President of the ECB stated that the Commission Communication on strengthening the co-ordination of budgetary policies was a good starting-point for rebuilding confidence in the budgetary framework. Moreover, he reiterated the Governing Council's full support for the Commission's main objective, namely to improve the implementation of the SGP within the existing framework of rules.

1.3 The Convention on the future of Europe

At its meeting in Laeken in December 2001, the European Council adopted a "Declaration on the Future of the European Union" (also known as "the Laeken Declaration") which identified the challenges for a Union standing at "a crossroads, a defining moment in its existence". In the light of these challenges, and in order to pave the way for the next Intergovernmental Conference "as broadly and openly as possible", the European Council decided to hold a Convention on the future of Europe. It mandated the Convention to consider the key issues arising for the EU's future development, to try to identify possible responses, and to simplify and reorganise the existing treaties, thereby possibly progressing towards a Constitution for European Citizens.

The Convention, which started its deliberations in February 2002 and is expected to finalise its work by summer 2003, brings together representatives from national governments, national parliaments, the European Parliament and the Commission. Accession countries are represented in the same way as present Member States. At a very early stage of their deliberations, the members of the Convention signalled their agreement with Chairman Giscard d'Estaing's proposal to prepare a "Treaty establishing a Constitution of Europe". This text, the aim of which is to simplify, streamline and strengthen the legal and constitutional basis of Europe, is to be presented for adoption to the Intergovernmental Conference to be held in 2003.

In May 2002, when accepting the International Charlemagne Prize of Aachen for 2002 on behalf of the euro, the ECB's President expressed the view that if it succeeded, the Convention would help to complement the existing economic constitution with effective and transparent political structures and processes.

In June 2002, within the wider remit of the Convention, a Working Group on Economic Governance was established. The Working Group discussed the general framework of economic governance, monetary policy, economic policies and institutional issues. In September 2002 the ECB's President attended a hearing of this Working Group, conveying his views on how monetary and economic matters could be covered in the future constitutional treaty. He expressed the view that the present framework for economic governance was sound and capable of meeting the challenges of the future. Moreover, he urged the Convention to preserve the essence of this framework and in particular the monetary principles of the Treaty, notably central bank independence and the primary objective to maintain price stability. These principles should, as the founding pillars of the monetary constitution of the EU, feature prominently in a future constitutional treaty.

In October 2002 the Working Group adopted its report, in which it recommended that the current structure of economic governance be maintained, thereby affirming that exclusive competence for monetary policy within the euro area is exercised by the ECB. The report also expressed the view that the tasks, mandate and statute of the ECB should remain unchanged, and should not be affected by any new treaty provisions. During the discussion of the report in the Convention Plenary on 7 November, an overwhelming majority of the members of the Convention signalled their support for these recommendations by the Working Group.

The ECB is closely monitoring the Convention and considers that the adoption of a "Constitutional Treaty of Europe" would complement and further bolster the success of Economic and Monetary Union.

1.4 Financial market reform

In order to reap the full benefits of the single currency, attention has increasingly been devoted to removing the remaining obstacles to the emergence of a truly single market for financial services. In 2002 further important steps were taken in this direction at the EU level: new pieces of legislation were adopted and the procedures for drawing up and applying regulations were thoroughly discussed.

The Barcelona European Council (March 2002) confirmed that full implementation by 2005 of the Financial Services Action Plan (FSAP) was a priority in order to overcome the remaining imperfections in the European market for financial services. Launched in 1999, the FSAP provides an orientation for the necessary measures to be taken in the area of financial markets. Progress is regularly reviewed by the European Commission, assisted by the Financial Services Policy Group in which the ECB is represented. While emphasising that the Commission must adopt measures in the FSAP by mid-2004 if it is to achieve the 2005 deadline, the 7th Progress Report on the implementation of the FSAP, issued in December 2002, notes that progress has been made. Of the 42 measures listed in the original Action Plan, 31 had been adopted by the end of 2002. These include the Directives on collateral and on distance marketing of financial services as well as the Regulation on international accounting standards (IAS). Only four legislative proposals remain to be made by the Commission, such as the revision of the capital adequacy framework for banks and investment firms. In response to wider market developments since the FSAP was launched, five further measures have also been prepared, including the Communication on Clearing and Settlement.

Moreover, further progress was made in 2002 with regard to providing the EU with structures for financial regulation, supervision and stability that are capable of meeting the needs of a rapidly changing financial environment. To this end, on 3 December 2002 the ECOFIN Council, following a large-scale public consultation, endorsed a report containing a number of concrete proposals. The report suggested that the interinstitutional "Lamfalussy framework" adopted in the area of securities should be extended to all financial sectors. It proposed the establishment of three new regulatory ("level 2") committees for banking, financial conglomerates, and pensions and insurance, and two new supervisory ("level 3") committees for banking and for pensions and insurance. The report also suggested that a reconfigured Financial Services Policy Group under Member State chairmanship would provide policy advice on financial market issues and also assist the EFC in preparing ECOFIN Council discussions on financial stability issues. The ECOFIN Council invited the Commission to establish the level 2 and 3 committees as soon as possible. In this context, pending an agreement with the European Parliament on the delegation of powers to the level 2 committees for the adoption of implementing measures, the latter should initially be set up in an advisory capacity only (see also Chapter IX for further details).

2 International co-operation

In 2002 the ECB and the NCBs continued to participate in the monetary, financial and economic activities of international institutions and fora. The practical arrangements for the ECB's international representation and co-operation, as described in the ECB's Annual Report 1999, remained broadly unchanged. Within the EU, co-ordination on international macroeconomic and financial issues was strengthened, inter alia, in the context of the EFC's regular activities, as well as through improved information exchanges with the IMF Executive Directors representing the Member States of the EU and with the ECB Observer.

2.1 Multilateral and bilateral surveillance of macroeconomic policies

The ECB and the NCBs continued to participate in regular peer reviews (multilateral surveillance) and reviews by international institutions (bilateral surveillance) of monetary, economic and financial developments and policies.

Multilateral surveillance

The ECB exchanged information and views with other policy-makers in several multilateral institutions and fora. The President of the ECB, together with the Eurogroup President, represented the euro area at the sessions of G7 finance ministers and central bank governors' meetings devoted to surveillance and exchange rate issues. The President of the ECB also participated in discussions on the state of the world economy in other informal fora, such as the meetings of the G10 governors, as well as those of 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. Finally, the ECB and NCBs participated in the Economic Policy Committee (EPC) of the Organisation for Economic Co-operation and Development (OECD), which discussed the short-term global outlook and near-term policy requirements, thereby contributing to the preparation of the OECD's Economic Outlook. The ECB and NCBs also took part in meetings of sub-committees and working parties of the EPC.

Bilateral surveillance

The ECB contributed to bilateral reviews of the monetary, financial and economic policies of the euro area by the IMF and the OECD. In 2002 IMF staff prepared two Article IV reports on the monetary and exchange rate policies of the euro area, which complemented the national consultations. These reports were based on, inter alia, discussions between an IMF staff mission and the ECB. The first report was circulated for information to the IMF Executive Board in April 2002. The second report was discussed by the IMF Executive Board and published in October 2002, together with a public information notice summarising the IMF Executive Board's assessment and a statement by the Executive Director representing the country currently holding the Presidency of the EU Council, on behalf of the euro area authorities. The Executive Directors of the IMF congratulated the euro area authorities for the successful and smooth euro cash changeover. They noted that, in 2002, growth had been weaker and inflation higher than expected, as a result of both unanticipated shocks and still high vulnerability to external developments, despite the fact that the euro area as a whole was much less open than its individual member countries had been prior to Monetary Union. They expected that the economic recovery would be gradual and that significant downside risks would remain.

The OECD published an Economic Survey of the Euro Area (July 2002), which drew on, inter alia, the work of an OECD staff mission to the ECB. The survey was finalised by the Economic and Development Review Committee of the OECD, in which the Eurogroup President, the European Commission and the ECB jointly represented the EU. The survey noted that the ongoing economic recovery should gradually gather momentum. As for monetary policy, the survey reviewed recent price developments in the euro area and concluded that the fact that the average inflation rate had been above 2% since 2000 was attributable to a series of adverse inflationary shocks. The persistence of relatively high inflation in some euro area countries was seen as a challenge that called for more flexibility in labour and product markets and further integration of financial markets.

2.2 Monitoring of developments in global financial markets

Global financial market stability

The ESCB continued to devote special attention to the work of international financial institutions and fora dealing with global financial market developments. In particular, the ECB and NCBs participated in the regular monitoring of financial developments by the Financial Stability Forum (FSF), the BIS-based Committee on the Global Financial System (CGFS), and the OECD's Committee on Financial Markets. The ECB Observer took part in the IMF Executive Board discussions on the IMF's quarterly Global Financial Stability Reports, which replaced the annual International Capital Markets Reports and the quarterly reviews of Emerging Market Financing. In preparing one of these reports, an IMF delegation visited the ECB to discuss current conditions in European financial markets and developments towards the integration of financial markets in the EU.

Specific initiatives to enhance financial stability

The ECB took part in the work of international institutions and fora on specific aspects of the functioning of international financial markets. Several institutions and fora, including the FSF, reviewed the policy implications of large corporate failures in terms of disclosure, corporate governance, accounting and auditing practices, as well as financial market dynamics. The international community also continued to review and implement measures against money laundering and against the financing of terrorism. In that context, the IMF developed a methodology to assess the compliance of individual countries with internationally agreed standards in these fields.

The ECB participated in the work of the FSF, which reviewed, inter alia, the adoption of international standards by offshore financial centres, progress with regard to its recommendations related to highly leveraged institutions, and transparency practices in the reinsurance industry. The committees operating under the auspices of the central bank governors of the G10 countries also discussed specific financial issues. The Basel Committee on Banking Supervision pursued its work on the revision of the capital adequacy framework (a discussion of this revision is provided in Chapter IX). The ECB participated in the review by the CGFS of the financial implications of financing patterns used for IT innovations, developments in credit risk transfer mechanisms, and incentive structures in institutional asset management. The ECB was also involved in the activities of the Committee on Payment and Settlement Systems (CPSS), which is chaired by a member of the ECB's Executive Board (a discussion of these activities is provided in Chapter VIII). Finally, the ECB took part in the regular meetings of the Markets Committee, which replaces the Gold and Foreign Exchange Committee.

2.3 Relations with the IMF and related fora

The ESCB contributed to the ongoing review of the architecture of the international economic and financial system. These contributions were made either through work at the European level, where co-ordination on IMF issues was intensified, in particular in the EFC, or through direct participation in the relevant international institutions and fora.

Soundness of domestic economic policies

The ESCB has taken a strong interest in the work of the IMF on ways to promote the stability of the global economic and financial system. Specific attention was devoted to the role of IMF surveillance as a crisis prevention tool. In the context of its biannual review of surveillance, the IMF agreed on a number of measures aimed at improving the focus and quality of surveillance, enhancing the impact of its policy advice, and strengthening the role of surveillance in countries that are under a financial programme with the IMF.

The IMF continued its efforts to promote the stability of domestic financial systems and the implementation of internationally agreed standards and codes. In particular, the IMF – together with the World Bank – continued to prepare assessments of compliance with standards and codes and of the soundness of domestic financial systems in the context of Reports on the Observance of Standards and Codes (ROSCs) and Financial Sector Assessment Programmes (FSAPs). The ECB supported these efforts by providing technical experts for FSAP missions.

Management of financial crises

The IMF also continued its work on ways to promote the orderly resolution of financial crises. In discussing these issues, the ESCB continued to stress the need for clear rules on the respective responsibilities of the private and public sectors in the resolution of crises.

The IMF conducted a review of its access policy, i.e. the framework for determining the level of financial assistance to a member country that is experiencing balance of payments difficulties. The normal access limits, which are set in terms of member countries' quotas, were deemed to be appropriate. Moreover, the IMF Executive Board is clarifying the conditions and strengthening the procedures for access above the normal limits in exceptional circumstances. The ESCB is of the view that adherence to a more clearly defined access policy would facilitate co-ordination among all parties concerned by better aligning the incentives of sovereign debtors and private creditors with the international community's ability to resolve financial crises.

The debate continued on procedures intended to facilitate expeditious and orderly sovereign debt restructurings. The ESCB took the view that further progress is desirable with regard to three complementary approaches to achieving an orderly restructuring process. The first approach, which is contractual, consists of introducing into sovereign debt contracts what are known as "collective action clauses", which can help overcome creditor co-ordination problems. The ECB took part in the work conducted under the aegis of the finance ministers and central bank governors of the G10 to promote the development of suitable contractual provisions, which were also discussed with private sector representatives. Moreover, the international community is reviewing measures to encourage the inclusion of such clauses in sovereign bond contracts. In this regard, the EU Member States agreed to lead by example by committing themselves to include clauses in bonds issued by EU central governments under the law of foreign jurisdictions.

The second approach, which is statutory, consists of creating an international legal framework for the restructuring of sovereign debt, known as a "Sovereign Debt Restructuring Mechanism" (SDRM). The international community held a number of discussions on the possible coverage and modalities of such a framework. The proposed framework would allow a sovereign debtor and a qualified majority of its creditors to agree on a restructuring agreement that would become binding on the holders of all debt instruments covered by the framework.

The third approach, which is non-statutory, and could be embedded in a code of good conduct for debt restructuring, consists of using informal mechanisms to promote orderly crisis resolution, including unilateral standstills and the IMF's lending into arrears policy. Specifically, debtor countries might decide, in exceptional circumstances, to temporarily suspend payments to external private creditors and therefore to run into arrears with those creditors (unilateral standstills). The IMF might grant financial support to countries with such arrears, but only if a number of well-defined criteria were fulfilled (lending into arrears).

2.4 Co-operation with EU neighbouring regions

The ECB maintains relations with central banks in EU neighbouring regions and monitors international monetary issues of relevance to the ECB arising in these regions. In addition to the 12 EU accession countries covered in Chapter VI, these regions comprise the European Commonwealth of Independent States (CIS) including Russia, Turkey (a candidate country which has not yet started negotiations for EU entry), the Western Balkans, the Middle East and Africa.

By contrast with relations with accession country central banks, those with central banks in other EU neighbouring regions have not been developed in accordance with a single framework but have taken different forms, focusing on country-specific issues of common interest. In this context it is important to note that, for most countries in the regions, the institutional, trade and financial links with the euro area are highly significant: virtually all of these countries are associated with the EU through regional agreements, which aim in particular to liberalise the movement of goods (and in some cases capital and services) between the EU and the countries concerned. In a few cases, the agreements also include specific clauses with regard to the financial sector. Moreover, in economic terms the euro area is the largest trade partner of most of these countries as well as the main source of international credit, foreign direct investment (including in the banking system) and official development aid.

Bilateral relations have developed in particular with the Central Bank of Turkey, with which the ECB has established a high-level policy dialogue, including annual meetings at Board level. Co-operation has also been enhanced with the Central Bank of Russia in view of, among other things, important reforms of its monetary policy strategy and tools. The ECB has developed its contacts with central banks of the Western Balkan countries, the region outside the euro area most directly affected by the euro cash changeover, and with the central banks of several Mediterranean countries (Egypt, Israel, Morocco and Tunisia). Moreover, the ECB participated in events organised in the two CFA[2] zones in Africa on the occasions of the 40th anniversary of the Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO) and the 30th anniversary of the Banque des Etats de l'Afrique Centrale (BEAC). The ECB has developed relations with the West African Monetary Institute in Accra, Ghana, a body created in early 2001 by West African English-speaking countries under the leadership of Ghana and Nigeria in order to create a new monetary zone alongside the existing CFA franc zone. In 2002 the participant countries established a regional exchange rate mechanism. The ECB has also established contacts with the

2 *"Communauté Financière de l'Afrique" in Western Africa and "Coopération Financière Africaine" in Central Africa.*

Gulf Cooperation Council (GCC). The six countries forming the GCC[3] have declared their intention to launch a single currency in 2010 and adopted a common peg at the end of 2002 as a first step towards monetary unification. The Secretariat General of the GCC and the ECB organised a joint seminar on monetary integration in the euro area and in the Gulf region in Riyadh in October 2002. Finally, the ECB continued regular meetings with the central banks of Iceland, Norway and Switzerland.

The use of the euro in the EU neighbouring regions

Although the use of the euro is not widespread in the exchange rate arrangements of the area as a whole, and the ECB is of the view that it should not actively seek to influence the international role of the euro, the euro plays an important role for several countries. In the Western Balkans, in particular, all countries but Albania anchor their currency to the euro; indeed, Bosnia and Herzegovina pegs its domestic currency to the euro under a currency board arrangement, while Croatia, the Former Yugoslav Republic of Macedonia and Yugoslavia manage their respective exchange rates vis-à-vis the euro. In the Mediterranean, Morocco and Tunisia give the euro an important role in the conduct of their exchange rate policies, although the authorities are debating a transition to more flexible exchange rate policies. In the two monetary zones using the CFA franc, the euro has replaced the French franc as the anchor currency.

In several neighbouring countries, private households use the euro as a parallel currency, in the form of both cash and euro-denominated bank deposits. Of the €25 billion shipped to destinations outside the euro area by August 2002, at least one-fifth is estimated to be circulating in the Balkans, where euro banknotes are used as a store of value and as a means for large-value payments. The Balkan region also exhibits a high degree of asset substitution, with, for instance, euro-denominated deposits accounting for 80% of total deposits in Yugoslavia, 70% in Croatia and 50% in Bosnia and Herzegovina at end-2001. The level of currency and asset substitution remains high, despite substantial progress in monetary and financial stabilisation in the last few years. Kosovo and Montenegro are special cases in terms of the use of euro cash: they are officially euroised territories, i.e. political entities which have unilaterally adopted the euro as their official currency.

2.5 Co-operation with Asia-Pacific and Latin America

The European experience with economic, financial and monetary integration has also aroused interest among Asian and Latin American countries in recent years. In this context, the ECB has frequently been asked to share its experience within the framework of several initiatives aimed at fostering regional co-operation in the two regions. The ECB has in turn been closely following economic developments in these regions, and strengthening its bilateral relations with local authorities, especially central banks.

Regional co-operation in Asia and the Pacific

The Asia-Europe Meeting (ASEM) – a leading forum for co-operation between the EU Member States and ten East Asian countries – has since 1996 provided a unique context for exchanging information and fostering policy dialogue. On 5 and 6 July 2002 the Vice-President of the ECB participated in the Fourth ASEM Finance Ministers' Meeting in Copenhagen, where he gave a presentation on the international role of the euro, with particular focus on its use in both East Asia and the EU neighbouring regions. In preparing this meeting, the ECB

3 Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

organised a high-level seminar on "Regional economic, financial and monetary co-operation: the European and Asian experiences", which took place in Frankfurt on 15 and 16 April 2002. At this seminar – held within the framework of the ASEM-based Kobe Research Project, which promotes cross-regional research activity – officials from ASEM finance ministries, central banks, government agencies and international financial organisations and academics exchanged views on three general issues of relevance to regional co-operation in Asia and Europe. First, the seminar dealt with the scope and sequence of, and basic requirements for, regional economic co-operation. Particular emphasis was placed on trade and foreign direct investment. Second, regional financial co-operation was addressed, in particular the efficiency, soundness, liberalisation and integration of Asian and European financial markets. In this context, a more specific debate took place on the initiatives to enhance financial co-operation in Asia in the aftermath of the 1997-98 crisis. Third, participants discussed possible strategies for monetary and exchange rate policy co-operation among countries that are already pursuing regional co-operation efforts, with a focus on lessons to be drawn from the European experience.

Bilateral relations entailed, among other things, several visits to Asian countries. For instance, in February 2002 an ECB delegation, including the President and an Executive Board member, visited China. Following this event, in September 2002 the ECB concluded a Memorandum of Understanding with the People's Bank of China (PBC) designed to foster bilateral co-operation between the two institutions. In this context, the PBC decided to establish a representative office in Frankfurt, the opening ceremony of which took place in December.

Regional co-operation in Latin America

In the context of a joint initiative of the ECB and the Banco de España, a first high-level seminar of the Eurosystem and Latin American central banks took place in Madrid on 23 and 24 May 2002. A preparatory workshop at expert level was held at the ECB in Frankfurt on 21 and 22 March 2002. The aim of the seminar was to improve policy dialogue between the Eurosystem and Latin American central banks and share views on issues of common interest. The discussions focused on three topics: regional integration in Latin America and Europe, monetary and exchange rate policies and financial sector issues.

The European integration process was considered to be of policy relevance to Latin American countries, although the EU experience cannot provide a blueprint for further progress in regional co-operation, given the differences in initial conditions between the two areas. Nevertheless, one lesson derived from the EU experience that might be applicable relates to multilateral regional surveillance as a means to promote stability-oriented macroeconomic policies, and best practices in other relevant policy areas. On the second topic, discussion focused on the conditions for successful, stability-oriented monetary policies, such as sound fiscal and structural policies, institutional support and the need to take exchange rate developments and expectations into account. Finally, participants discussed policies and instruments for increasing the stability and soundness of domestic financial systems in Latin American countries.

Dutch writer Harry Mulisch reads from his latest book during the Dutch Cultural Days in September 2002

Presentation on the Spanish architect Antoni Gaudí during the Spanish Cultural Days in May 2002

Chapter VI

Enlargement of the European Union

1 Introduction

The Copenhagen European Council of 12 and 13 December 2002 concluded with a historic agreement on the enlargement of the EU. Ten countries – the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia – were invited to join the EU on 1 May 2004. After the Accession Treaty has been signed in spring 2003, it should be ratified by all EU Member States and the ten countries listed above, which intend to hold national referendums on this issue. Two more countries – Bulgaria and Romania – were given the prospect of becoming members at the beginning of 2007. Upon accession, the countries will join Economic and Monetary Union (EMU) with the status of "countries with a derogation" and their central banks will become part of the ESCB. Once the countries have achieved sustainable convergence, assessed in accordance with the procedure set up in the Treaty on the basis of the Maastricht criteria, they will also adopt the euro and their central banks will become part of the Eurosystem, which comprises the ECB and the NCBs of the euro area.

While not being formally associated with the accession negotiations, the Eurosystem is involved in the accession process in its areas of competence. Its involvement has taken the form of an ongoing dialogue, comprising both policy and technical dimensions, to support the accession country central banks' preparations for membership of the ESCB and, at a later stage, the Eurosystem. The dialogue covers economic, legal and institutional policy issues that are of relevance to central banks. Moreover, it involves technical co-operation activities with accession country central banks in areas such as payment systems, legal issues and statistics.

In addition, the Eurosystem has been involved in the "Economic Dialogue" between the EU and the accession countries, established by the European Council in December 2000 and co-ordinated by the European Commission. The Economic Dialogue takes place twice a year at ministerial and Economic and Financial Committee (EFC) levels. This dialogue serves two purposes: first, to support the accession process through an exchange of views on macroeconomic policy and financial stability issues in the pre-accession phase and, second, to familiarise accession countries with the EU procedures of multilateral surveillance, to which these countries will become subject when they join the EU.

In this context, the Eurosystem has been closely monitoring economic, legal and institutional policy issues in the accession countries, focusing particularly on macroeconomic developments, monetary policy and exchange rate strategies and financial sector developments. Furthermore, the ECB has started preparations to ensure the orderly enlargement of the ESCB and, at a later stage, the Eurosystem. The latter includes the ECB recommendation concerning the adjustment of the voting modalities in the Governing Council, and the launch of a Master Plan aimed at preparing the ECB for enlargement. This chapter gives an overview of these issues. It should be stressed that the chapter should not be regarded as prejudging the convergence assessment that the ECB will have to prepare, in accordance with Article 122 (2) of the Treaty, when the accession countries join the EU with a view to a possible adoption of the euro.

2 Key economic, legal and institutional policy issues

Most accession countries have made significant progress over the past decade in their transition to fully-fledged market economies and in entrenching macroeconomic stability. More recently, the EU accession process has itself been a factor in anchoring policies and further fostering stability in the whole region. In this regard, the most relevant issues for the Eurosystem are as follows: (i) real convergence, (ii) legal and institutional convergence, (iii) nominal convergence, (iv) monetary policy and exchange rate strategies, and (v) financial sector developments. These issues are briefly reviewed in this section.

2.1 Real convergence

Real GDP growth held up fairly well in most accession countries in 2002, despite a weakening international growth environment. Although the pace of economic expansion decelerated in some countries in central and eastern Europe, in part owing to weak economic activity elsewhere, it remained strong in the Baltic States, partly supported by the robust growth of the Russian economy. As a result, the steady growth path observed in virtually all accession countries since 2000 continued in 2002, and GDP growth is estimated at around 2.3%, on average, for the year (see Table 14). Overall, the accession countries' resilience to the global economic slowdown has been supported by strong domestic demand, partly stimulated by looser fiscal policies, and by increasing confidence in the macroeconomic stabilisation already accomplished.

However, the degree of real income convergence with the euro area, i.e. the catching-up of the per capita income levels, has remained limited for the accession countries as a whole. There is still, therefore, a large gap between the average GDP per capita of the accession countries and that of the euro area. On average, GDP per capita in the accession countries is, in terms of purchasing power parity, around 44% of that of the euro area, while this figure is even lower when current exchange rates are taken into account. As a result, compared with the size of their combined population (around 35% of the euro area's population), the economic weight of the accession countries remains relatively small (around 7% of euro area GDP). The size of the gap, combined with the limited growth differentials, suggests that the process of real convergence is likely to continue far beyond EU accession.

However, the concept of real convergence relevant for integration into the Single Market and, at a later stage, the euro area entails more than the catching-up of income levels. In particular, it involves assessing whether accession countries have adjusted their economic structures to bring them more into line with those in the euro area and achieved stronger economic integration with the euro area. Encouragingly, accession countries have

Table 14

Annual average real GDP growth rates

(in percentages)

	Bulgaria	Cyprus	Czech R.	Estonia	Hungary	Latvia	Lithuania
1999	2.3	4.8	0.5	-0.6	4.2	2.8	-3.9
2000	5.4	5.2	3.3	7.1	5.2	6.8	3.8
2001	4.0	4.1	3.3	5.0	3.7	7.7	5.9
2002	4.0	2.2	2.2	4.5	3.4	5.0	5.0
1999-2002	3.9	4.1	2.3	4.0	4.1	5.6	2.7

	Malta	Poland	Romania	Slovakia	Slovenia	All [1]	Euro area
1999	4.1	4.1	-1.2	1.3	5.2	2.6	2.8
2000	6.1	4.0	1.8	2.2	4.6	4.0	3.5
2001	-0.8	1.0	5.3	3.3	2.9	2.7	1.4
2002	1.9	0.8	4.2	3.9	2.6	2.3	0.8
1999-2002	2.8	2.4	2.5	2.7	3.8	2.9	2.1

Source: Eurostat.
1) Weighted by nominal GDP in 1999.

Table 15

Accession country key data

(2001)

	Population (millions)	Nominal GDP (EUR billions)	GDP per capita [1] (EUR)	GDP per capita (% of euro area average) [1]	Share of industry in GDP [2] (%)	Share of agriculture in GDP [2] (%)	Unemploy-ment rate (period average)	Exports to euro area (% of total exports)
Bulgaria	8.0	15.2	6,506	28	23.0	13.8	19.3	51.5
Cyprus	0.8	10.2	16,355	71	12.9	4.0	4.3	18.5
Czech Republic	10.3	63.3	13,521	59	32.8	4.2	8.1	61.7
Estonia	1.4	6.2	9,995	43	22.7	5.8	12.2	41.5
Hungary	10.2	57.8	11,839	51	27.1	4.3	5.6	68.6
Latvia	2.4	8.5	7,719	33	18.7	4.7	12.1	30.2
Lithuania	3.5	13.4	9,834	43	27.5	7.0	16.1	25.8
Malta	0.4	4.0	12,825	56	24.5	2.4	4.5	35.1
Poland	38.6	204.1	9,127	40	24.1	3.8	18.1	59.0
Romania	22.4	44.4	5,868	25	28.5	14.6	8.0	62.0
Slovakia	5.4	22.8	10,885	47	27.5	4.6	19.6	56.2
Slovenia	2.0	21.7	16,014	69	30.3	3.3	6.4	58.0
All [3]	105.2	471.6	10,255	44	26.2	5.4	13.1	57.6
Euro area	306.6	6,827.7	23,090	100	22.3	2.4	8.0	50.4

Sources: European Commission, Eurostat and IMF.
1) In purchasing power parity (PPP) standards.
2) Data for Bulgaria refer to 2000.
3) Columns 3 to 8 are weighted by nominal GDP in 2001.

advanced significantly in this regard. For instance, in terms of the share in GDP of agriculture, industry and services, the accession countries' economic structure is becoming more similar to that of the euro area. In particular, the agriculture sector has shrunk to around 5% of GDP, compared with around 2% in the euro area, while the industrial sector represents 26% of GDP, slightly more than in the euro area (see Table 15). Since the beginning of the transition, accession countries have also re-directed trade towards the euro area, which has now become their main trading partner. Indeed, most accession countries display a share of trade with the euro area that compares well with that of the current EU Member States.

Despite these developments, further progress in structural reforms is needed to complete the transition and foster economic growth and convergence. In particular, the accession countries need to continue liberalising prices, improving corporate governance and the investment climate, fostering sound business practices and entrenching financial stability. Furthermore, the increase in unemployment that has occurred in the past few years points to the rationale for labour market reform in some countries. Finally, the fiscal consolidation paths projected by some of the countries will require sizeable fiscal measures in the near future.

2.2 Legal and institutional convergence

Real convergence has to be accompanied by legal and institutional reforms, as the latter are key factors affecting the growth prospects of accession countries in the medium term. In particular, legal and institutional reforms call for the establishment of appropriate institutions and the adoption of international best practices and standards in a number of areas (e.g. corporate governance, financial law). Encouragingly, accession countries have also made considerable progress in this direction. For instance, the transition indicators provided by the European Bank of Reconstruction and Development (EBRD) show that accession countries have made significant reforms in enterprise privatisation and restructuring, markets and trade systems, and financial institutions.

Regarding legal and institutional convergence, the Eurosystem has a crucial interest in the timely adoption and implementation of the *acquis communautaire* in accession countries in its areas of competence. These areas cover, in particular, central bank independence and other legislation in the financial field. Following the request by the governors of the central banks of the prospective Member States, and in close co-operation with the latter, the Eurosystem has carefully analysed the annual level of compliance by the accession countries with the requirements set out in the Treaty.

As regards central bank independence, the statutes of the 12 accession countries have been analysed on the basis of the criteria established in the legal convergence reports prepared by the EMI and the ECB – namely institutional, personal, functional and financial independence – and in the light of the opinions adopted by the ECB, in instances where the EMI and the ECB were consulted on draft national legislation in their field of competence and, in particular, on draft statutes of the NCBs of the EU Member States. These opinions have contributed to the process whereby accession countries have revised their central bank acts to meet the requirements set out in the Treaty, thus laying down the foundations for independent institutions.

Central banks and credit institutions have to operate in a sound legal environment. As the *acquis communautaire* has a general impact on the financial sector and on the central banks' activities, the new Member States must comply with it from the time of accession. This is why the Eurosystem has also focused on legislation in the financial field – namely in the areas of freedom of movement of capital, regulation of the financial markets, collateral, payment systems, insolvency and banknotes.

This overall analysis has been a valuable instrument for the accession country central banks with regard to their role, at a national level, in the accession process. Such analysis has also fulfilled the purpose of assisting the European Commission in the accession process by further strengthening the in-depth analysis of the issues relating to central bank independence.

2.3 Nominal convergence

During the last decade, progress in disinflation in the accession countries has been significant. Indeed, inflation has come down from double-digit rates or hyperinflation to relatively low levels, favoured by the successful implementation of macroeconomic stabilisation programmes. The process of disinflation continued to advance in 2002 and, by the end of the year, the average inflation rate of the accession countries was slightly above that of the euro area (see Table 16). However, some specific factors – contained food prices, unexpected delays in price deregulation and appreciating currencies – have contributed to the process of disinflation in some accession countries. Maintaining low inflation rates remains crucial to entrenching an economic environment of price stability, also in view of the ultimate goal of adopting the euro and, therefore, the need to fulfil the Maastricht criteria.

However, delivering low inflation rates remains a challenge, as a number of factors are likely to contribute to inflation differentials between the accession countries and the euro area. Some of these factors, such as ongoing price liberalisation and deregulation, are related to the transition process. In addition, higher productivity growth in the tradable sector than in the non-tradable sector in the accession countries may lead to a rise in the relative price of non-tradables and somewhat higher inflation, a phenomenon often referred to as "the Balassa-Samuelson effect". Although

Table 16

Period average HICP inflation

(in percentages)

	Bulgaria	Cyprus	Czech R.	Estonia	Hungary	Latvia	Lithuania
1999	2.6	1.1	1.8	3.1	10.0	2.1	0.7
2000	10.3	4.9	3.9	3.9	10.0	2.6	0.9
2001	7.4	2.0	4.5	5.6	9.1	2.5	1.3
Q1 2002	8.2	2.2	3.4	4.4	6.2	3.3	2.7
Q2 2002	7.1	2.2	2.0	4.2	5.4	2.0	0.6
Q3 2002	4.6	3.8	0.3	2.9	4.5	1.0	-0.6
Q4 2002	3.4	2.9	0.1	2.9	4.8	1.6	-0.9

	Malta 1)	Poland	Romania	Slovakia	Slovenia	All 2)	Euro area
1999	2.1	7.2	45.8	10.4	6.1	9.8	1.1
2000	2.4	10.1	45.7	12.2	8.9	11.9	2.1
2001	2.9	5.3	34.5	7.0	8.6	8.5	2.4
Q1 2002	3.8	3.5	27.0	4.6	7.9	6.4	2.5
Q2 2002	2.4	1.9	24.3	3.0	7.6	5.0	2.1
Q3 2002	1.5	1.4	21.4	2.5	7.4	4.0	2.1
Q4 2002	1.1	1.0	18.4	3.1	6.9	3.5	2.3

Sources: Eurostat and national sources.
1) CPI.
2) Weighted by nominal GDP in 1999.

most empirical studies indicate that the Balassa-Samuelson effect has so far accounted for only a limited share of inflation differentials vis-à-vis the euro area, there is evidence that such an effect operates in these countries.[1] Moreover, the significance of this effect could increase in the years to come if productivity growth in the tradable sector were to accelerate supported by, inter alia, EU accession. In addition to these factors, large nominal wage growth owing to, for instance, pent-up wage demands, stubborn inflation expectations or backward-looking wage indexation may well contribute to inflationary pressures. Finally, the fiscal slippages recently recorded in some accession countries could also jeopardise the hard-won stabilisation progress and disinflation gains.

2.4 Monetary policy and exchange rate strategies

Accession countries can generally be regarded as small, open economies with a high degree of integration with the euro area. In this context, the choice of the exchange rate strategy is key, as it provides the framework within which monetary policy can continue to be geared towards price stability, while real convergence may proceed without being hampered by undue exchange rate movements.

Over recent years, the euro has gained importance as the main reference currency in the accession countries. The most recent evidence has been provided by Lithuania, which re-pegged its currency board from the US dollar to the euro in February 2002, and Malta, which decided in August 2002 to increase the weight of the euro in its currency basket to 70%. Countries still follow a variety of exchange rate strategies, covering the full spectrum from currency boards to free floats, and the choice of monetary policy strategies also differs widely (see Table 17). While countries with fixed exchange rate regimes (Bulgaria, Estonia, Latvia, Lithuania and Malta) obviously gear monetary policy towards an exchange rate target, other countries operate

1 *Benes, J. et al. (2002), "On the estimated size of the Balassa-Samuelson effect in five Central and Eastern European countries", edited by M. A. Kovács. National Bank of Hungary, Working Paper 2002/5.*

Table 17

Monetary and exchange rate strategies in accession countries

	Exchange rate strategy [1]	Currency	Features
Currency board			
Bulgaria	Currency board to the euro	Bulgarian lev	Introduced in 1997
Estonia	Currency board to the euro	Estonian kroon	Introduced in 1992
Lithuania	Currency board to the euro	Lithuanian litas	Introduced in 1994; re-pegged from the US dollar to the euro in February 2002
Conventional fixed peg			
Latvia	Peg to the SDR	Latvian lat	Exchange rate band ±1%
Malta	Peg to a basket	Maltese lira	Currency basket (euro, US dollar, pound sterling): exchange rate band ±0.25%
Unilateral peg to the euro with ±15% fluctuation band			
Cyprus	Peg to the euro, with ±15% fluctuation bands	Cyprus pound	
Hungary	Peg to the euro, with ±15% fluctuation bands	Hungarian forint	Exchange rate regime combined with inflation targeting: 2.5-4.5% by end-2003
Managed float [2]			
Romania	Managed float	Romanian leu	Currency basket (US dollar, euro) is used informally as reference
Slovakia	Managed float	Slovakian koruna	
Slovenia	Managed float	Slovenian tolar	Prominent role for monetary aggregates; the euro is used informally as reference currency
Independent float [2]			
Czech Republic	Free float	Czech koruna	Inflation targeting: 2%-4% by end-2005
Poland	Free float	Polish zloty	Inflation targeting: 3% (within tolerance at ±1 percentage point) by end-2003

Sources: IMF and national central banks.
1) *Based on the IMF Annual Report on Exchange Arrangements and Exchange Restrictions, 2001.*
2) *IMF classification.*

fully-fledged inflation targeting frameworks (Poland and the Czech Republic), managed floats (Slovakia) or an exchange rate regime that unilaterally pegs to the euro with a ±15% fluctuation band (Cyprus and Hungary). Finally, some countries also include monetary aggregates prominently in their monetary policy strategy (Romania and Slovenia).

Overall, the accession countries' monetary and exchange rate policies have made a significant contribution to macroeconomic stability and disinflation, and thereby provided the conditions for sustainable economic growth. Most countries, however, have faced challenges, as exchange rate policy management has had to cope with risks to external competitiveness, rising and volatile capital flows and the setting and achievement of inflation targets in economies where the exchange rate largely determines monetary policy conditions. Moreover, as in all economies, exchange rate policy management has entailed maintaining an appropriate balance between monetary, fiscal and structural policies.

In view of the need to advance preparations for full participation in EMU, managing the process up to the eventual adoption of the euro still poses a number of major challenges. Excessive exchange rate fluctuations vis-à-vis the euro are likely to hamper trade and financial relations with the euro area and may be harmful to the development of a stable domestic economy. However, fixed exchange rates may pose more challenges with regard to the reforms needed to further align the economic structures of the accession countries with those of the euro area.

Countries have so far reacted differently to this trade-off, leading to a significant diversity in current exchange rate regimes. Some accession countries will need to adjust their exchange rate regimes to make them compatible with ERM II, before they can participate in this arrangement. Upon EU accession, important policy choices with regard to the timing of entry and modalities of ERM II participation will have to be made, in line with the objective outlined in the European Council resolution on ERM II. Such policy choices are primarily the responsibility of the countries concerned and must be in line with the Treaty requirements, such as the obligation to treat exchange rate policy as a matter of common interest. Although ERM II will ultimately play a role in the convergence criteria for joining the euro, because participation in it for a period of at least two years is one of the preconditions to join the euro, its primary role is to help the members of ERM II to orient their policies towards stability and to foster convergence.

Encouragingly, over the past few years, significant progress has been made in terms of financial sector restructuring and consolidation. The banking sector has been strengthened by means of large-scale privatisation of state-owned banks and an extensive opening-up to foreign ownership. This process has led to greater integration with the EU, due to a significant involvement of banks from EU countries, and has increased efficiency significantly. However, the transformation of the financial systems is far from complete, as the degree of financial intermediation remains rather low. This is reflected, above all, in the ratio of banking assets to GDP (around one-quarter of that of the euro area) and of domestic credit to GDP (about one-third of that of the euro area). Moreover, in a few countries the banking sector continues to suffer from a significant proportion of non-performing loans and is hampered in its lending activity by weaknesses in corporate governance and not very efficient legal frameworks.

2.5 Financial sector developments

Partly for historical reasons, the financial sector in the accession countries is largely dominated by the banking sector, whereas other financial sector components have tended to remain less developed. From the ECB's point of view, strengthening the financial sector is important for two main reasons. First, the structure and functioning of the financial sector has important implications for macroeconomic developments. In particular, sound financial sectors will help to support structural reforms in the real sector of the economy. Financial sectors may, therefore, be conducive to higher potential output growth and convergence in real income with the euro area. Second, financial stability in the accession countries is essential if monetary policy is to be conducted smoothly in an enlarged euro area. Undoubtedly, weaknesses in the financial sector would pose significant challenges for the conduct of monetary policy, and for the credibility of central banks and their pursuit of price stability.

2.6 Concluding remarks

After a number of difficult years of macroeconomic management at the beginning of the transition period, institution building and policy design have advanced far enough for accession countries to be able to achieve macroeconomic stability. Despite a global slowdown, economic developments remained broadly positive in most countries in 2002. Growth differentials with the euro area have been maintained or even somewhat widened, and the progress in disinflation has been notable. Adequate choices of monetary policy and exchange rate strategies have contributed to this achievement. However, some challenges remain: economic growth and legal and institutional reform need to keep up the momentum to accelerate the process of catching-up in real income, disinflation gains need to be entrenched, while allowing for ongoing price liberalisation, and financial sectors need to be further strengthened. The choice of monetary policy and exchange rate strategies up to the eventual adoption of the euro also poses a real challenge. Although large exchange rate fluctuations vis-à-vis the euro should be avoided, a certain degree of exchange rate adjustability may be desirable to accommodate the further reforms that are still necessary for full participation in EMU.

3 Accession preparations

3.1 Preparations of the decision-making bodies and committees of the ESCB

The General Council

In September 2002 the General Council decided to invite the governors of the accession country central banks to its meetings as observers following the signing of the Accession Treaty. This decision, which is consistent with the approach adopted by the EMI Council in 1994 with respect to the governors of the Austrian, Norwegian, Finnish and Swedish central banks, aims to provide the governors of the accession country central banks with the opportunity to familiarise themselves with relevant ESCB issues and working methods, and will enhance their integration as members of the General Council in 2004.

The ESCB committees

In order to support the smooth integration of the accession country central banks into the ESCB, the Governing Council also decided, once the Accession Treaty has been signed, to grant, observer status to experts from the relevant accession country central banks in the ESCB committees, whenever they meet in ESCB composition.

The Governing Council

The accession of new Member States to the euro area will lead to a substantial expansion of the Governing Council, the Eurosystem's supreme decision-making body. To ensure efficient and timely decision-making also after enlargement, the Treaty of Nice provides for an "enabling clause", which allows for an adjustment of the voting modalities in the Governing Council of the ECB (Article 10.2 of the Statute of the ESCB) in the form of a new paragraph 6 to Article 10 (entitled "The Governing Council") of the Statute. According to this enabling clause, Article 10.2 of the Statute may be amended by way of a unanimous decision of the EU Council meeting in the composition of Heads of State or Government, either on the basis of a unanimously agreed recommendation from the ECB, and after consulting the European Parliament and the Commission; or on a recommendation from the Commission, after consulting the ECB and the European Parliament. The agreed amendment would then be recommended to the Member States for ratification in accordance with their respective constitutional requirements. In a declaration annexed to the Final Act of the Intergovernmental Conference preparing the Treaty of Nice, the governments of the Member States expressed their expectation that a recommendation in the meaning of Article 10.6 would be presented as soon as possible after the Treaty enters into force. Over the past year, the Governing Council has discussed extensively possible options for an adjustment of its voting modalities and reached unanimous agreement on a revision of Article 10.2 of the Statute, which was presented to the EU Council as ECB Recommendation (ECB/2003/1) in February 2003. (The substance of this recommended adjustment of voting modalities in the Governing Council is explained in detail in Chapter XIII.)

3.2 The ECB's subscribed capital and ceiling on foreign reserve assets

In the context of enlargement, the Governing Council and the General Council of the ECB have also addressed the issue of upward adjustments to the ECB's subscribed capital and the ceiling on initial transfers by NCBs of foreign reserve assets to the ECB. This was necessary because, under the current rules, the ECB would have been forced after ESCB enlargement to repay a significant amount of its paid-up capital to current members of the ESCB. Moreover, without any adjustments, the ECB would have also had to retransfer foreign reserve assets upon the adoption of the euro by new Member States. Such outcomes would have been particularly inappropriate at a time when enlargement is expected to increase the ECB's operational activities and related costs.

More specifically, in accordance with the Statute of the ESCB, all NCBs participating in the ESCB subscribe to the ECB's capital of currently €5,000 million in accordance with a key that reflects their countries' shares in the Community population and GDP. In order to provide new NCBs with a weighting in the capital key when they enter the ESCB, the weightings of the already participating NCBs would inevitably decrease. Since it has been decided, under the current ECB arrangements concerning the paying-up of subscribed capital, that Eurosystem NCBs shall pay up their subscribed shares in full, while NCBs of Member States that have not yet adopted the euro have to pay only 5% of their subscribed share, the adjustment of the weightings in the capital key in the wake of the entry of new NCBs would lead, on balance, to a reduction of the overall amount of paid-up capital.

While this effect would have materialised immediately when new Member States join the EU and their NCBs join the ESCB, distortions with regard to the transfer of foreign reserves would have occurred later when the new Member States adopt the euro. Currently, the ceiling on initial transfers of foreign reserve assets to the ECB stands at €50,000 million and euro area NCBs have transferred foreign reserves to the ECB in proportion to their capital key. To allow, therefore, under the current ceiling, for future proportional transfers of foreign reserve assets by the NCBs of all prospective euro area member countries, the ECB would have had to retransfer foreign reserves to current euro area NCBs.

In order to avoid such adverse outcomes resulting from enlargement, the decision-making bodies of the ECB suggested to the European Commission to undertake the necessary steps for an appropriate technical amendment to the Statute of the ESCB. In October 2002, the ECOFIN Council adopted conclusions which recommended that, through the Accession Treaty, a new paragraph be introduced under Article 49 of the Statute. This new paragraph provides that the ECB's subscribed capital and the ceiling on the initial transfers of foreign reserve assets by NCBs will be increased upon the accession of new Member States. These increases are to be automatic and proportional to the weight of the NCBs of new Member States in the expanded capital key.

3.3 Master Plan

The enlargement of the ESCB requires a review of many of the ECB's functions and ESCB infrastructures, so as to enable both entities to carry out their responsibilities and achieve their objectives.

The ECB has started to develop an Accession Master Plan, which will act as a guiding instrument for the planning, implementation and monitoring of ECB activities across all functional areas in preparation for enlargement of the ESCB and, at a later stage, the Eurosystem. The Master Plan is inspired by the EMI Master Plan, which prepared the organisational and logistical framework necessary for the ESCB to perform its tasks in Stage Three of EMU.

Many of the infrastructure projects, which require relatively long lead times, are well under way. Furthermore, the ECB has already undertaken activities to familiarise the accession country central banks with the framework of the ESCB, and to help them to prepare for their integration into the ESCB.

The Master Plan activities, which will be intensified throughout 2003, will ensure that all relevant issues are dealt with in time to enable a smooth integration of the central banks of the new Member States into the framework of the ESCB without affecting the overall operational integrity of the ESCB's systems.

3.4 Assessment of payment and securities clearing and settlement infrastructure in accession countries

In 2002, the ECB, in close co-operation with the NCBs and the accession country central banks, made an assessment of the safety and efficiency of the payment and securities clearing and settlement infrastructure and the related oversight functions in the 12 accession countries. The assessment involved on-site discussions with the accession country central banks, other relevant national authorities, system operators and market participants. It focused on issues relating to EU enlargement rather than on euro area requirements. Attention was paid to aspects such as the use of various payment instruments, the appropriateness of the market infrastructure and the most relevant funds transfer systems and securities clearing and settlement systems operating or being built in the respective countries. It also focused on the degree of automation and standardisation, the degree of securitisation and adequacy of collateral, the central bank's role, and its oversight competence, capacity and objectives.

Although there is certainly room for improvement in all accession countries, the assessment concluded that the respective payment and securities clearing and settlement infrastructures do not present problems which would be serious enough to create obstacles to accession to the EU. The ECB provided all accession country central banks with both general and country-specific recommendations on issues for improvement. The overall findings and recommendations of the assessment exercise were also communicated to the European Commission for its report entitled "Towards the enlarged Union – Strategy Paper and Report of the European Commission on the progress towards accession by each of the candidate countries", published in October 2002.

3.5 Confidentiality Agreement with accession country central banks

In view of the forthcoming EU enlargement and the resulting ever closer co-operation between the ESCB and the central banks of the new Member States, the need arose to provide an overarching agreement on the sharing of confidential information among the ESCB and the accession country central banks. This Confidentiality Agreement has been negotiated between the ESCB and the 12 accession country central banks and complements all separate, existing agreements between the ECB and certain accession country central banks. Its purpose is to ensure that the parties observe common minimum standards for the handling of confidential information. The agreement applies not only to documents, but, in general, to all information exchanged between the ESCB and accession country central banks. This is particularly relevant given that the central banks of the first ten new Member States will be invited to join the ESCB committees as observers after they have signed the Accession Treaty.

3.6 Co-operation in the area of banknote counterfeiting monitoring

With regard to the start of operations of the ECB's Counterfeit Analysis Centre and the Counterfeit Monitoring System, the ECB has also co-operated with the accession country central banks in order to prevent and detect euro counterfeiting. In this respect, the ECB assessed the accession country central banks with a view to identifying those that have a clear role in their respective countries in the investigation and analysis of counterfeit banknotes. On the basis of this review, five accession country central banks were identified as possible first candidates for such early co-operation, and a template agreement on co-operation was drawn up. The ECB intends ultimately to establish such co-operation with all accession country central banks.

3.7 Central banking co-operation

In 2002, the ECB and the NCBs of the euro area continued to assist accession country central banks in their technical preparations for a smooth integration into the ESCB and, at a later stage, the Eurosystem. In particular, assistance has been provided by familiarising accession country central banks with the operational and functional framework of the ESCB and the Eurosystem and by expert-level support in various core central banking fields. As a consequence, central banking co-operation between the Eurosystem and the accession country central banks remained intense in 2002.

In 2002, more than 300 central banking co-operation activities were conducted, raising the total number of technical co-operation activities since late 1999 to around 1,000. Since 1999, assistance has been provided in the fields of payment systems, legal convergence and other issues relating to the ESCB legal framework, economic policies and analysis, statistics, monetary policy and operational framework, foreign exchange, supervision, accounting standards, euro banknotes, internal audit, information technology and capital account liberalisation. It has taken the form of expert seminars and workshops, bilateral visits at expert level, high-level consultations, training courses, internships and specific technical assistance activities. In some cases, experts from the Eurosystem and accession country central banks have drawn up joint analyses, inter alia on the status of legal preparations for EU membership, payment and security settlement systems, financial sectors and various aspects of the statistical framework in the accession countries.

Summer 2002

The ECB photographic exhibition
"The Making of the €uro" at the Banco de España
in Madrid and Barcelona

Chapter VII

Production and issue of banknotes

1 The introduction of euro banknotes and coins and developments in terms of circulation

Euro banknotes are issued by the ECB and the euro area NCBs. As of 1 January 2002, euro banknotes and coins were put into circulation in the 12 participating Member States as the new currency for more than 300 million European citizens, thereby replacing the legacy banknotes and coins. Thanks to the extensive preparatory work of all the professional parties involved and their major efforts in particular during the cash changeover period in January and February 2002, the introduction of the common banknotes and coins went very smoothly. The success of this unique operation was also supported by the favourable reception by the general public, who readily accepted the euro banknotes and coins at the start of 2002.

1.1 Frontloading and sub-frontloading of euro banknotes and coins in 2001

Two important factors behind the smooth changeover were the frontloading of high volumes of euro banknotes and coins to credit institutions and the sub-frontloading by credit institutions of a "critical mass" of banknotes and coins to retailers during the last four months of 2001. From a logistical point of view, these operations can be regarded as key in meeting one of the main objectives of the changeover scenario, i.e. that the bulk of cash transactions could be made in euro by mid-January 2002. All in all, the euro area NCBs provided 6.4 billion euro banknotes with a face value of some €133 billion to credit institutions located both inside and outside the euro area. Accordingly, the leading players in the cash changeover were very well prepared for the physical introduction of the euro banknotes and coins as of 1 January 2002. As low-denomination banknotes were especially needed for payment purposes, the frontloading covered, in volume terms, around 80% of the changeover needs for such banknotes. In parallel with this, around 38 billion euro coins were pre-distributed to credit institutions, retailers and, to a limited extent, also to euro area citizens in the form of starter kits prior to the launch, which covered 97% of the total coin needs for the changeover in volume terms.

1.2 Introduction of euro banknotes and coins during the 2002 cash changeover period

In addition to the aforementioned frontloading volumes, the Eurosystem issued another 1.7 billion euro banknotes with a face value of €67 billion during the first half of January 2002. On 15 January 2002 the number of euro banknotes in circulation (including the banknotes held in the vaults of MFIs) reached a peak of 8.1 billion. Subsequently, despite the continuous increase in value, the number of euro banknotes in circulation fell by 7.5% to 7.5 billion as at 1 March 2002, when the euro banknotes became the sole legal tender in the euro area. This might be explained by the fact that, in the first two weeks of January, there was a very high precautionary demand for low-denomination banknotes (in particular €5 and €10 banknotes) by credit institutions and the retail sector, in order to make it easier to give change. This possible explanation is confirmed by the fact that the number of €5 banknotes in circulation decreased by 34% and that of €10 banknotes fell by 17% between mid-January and end-February, whereas demand for all other banknote denominations was still growing during this period.

In terms of value, euro banknotes in circulation continued to rise sharply during the two-month changeover period, climbing by 86% from €133 billion at the beginning of January to €247 billion at the end of February. At this point in time, the euro banknotes in circulation already accounted for 86.5% of the total value of euro and national banknotes in circulation.

Given the high volume of euro coins frontloaded to banks and other professional target groups with a face value of €12.4 billion, the number of euro coins in circulation increased by only 2.6% during the first two weeks of the changeover period. As with the euro banknotes, the number of euro coins in circulation reached its peak on 15 January 2002, with 38.6 billion coins worth €12.6 billion (excluding stocks held by the NCBs). As of mid-January 2002, the number of euro coins in circulation started to decrease slightly and, at the end of the dual circulation period, there were 35.8 billion euro coins in circulation. The value of euro coins in circulation dropped by 8.2% between mid-January and end-February to €11.5 billion.

1.3 Developments in the amount of euro banknotes and coins in circulation during the rest of 2002

The slight decrease in the number of euro banknotes in circulation lasted until April 2002, when a low of 7.2 billion was reached. The number of euro banknotes in circulation had risen moderately by 13.8% to 8.2 billion by the end of 2002. The value of euro banknotes in circulation continued to increase, rising by 45.3% between March and December 2002 to €359 billion. This development can mainly be attributed to the strong demand for the high-value banknotes, in particular the €500 and the €200. Adding the remaining legacy banknotes not yet redeemed at the end of 2002, total banknotes in circulation amounted to 98% of the total value of national banknotes in circulation at end-2000.

Similar to the trend observed for euro banknotes, the number of euro coins in circulation decreased slightly until April 2002, when it reached a low of 34.7 billion with a face value of €11 billion. Thereafter, the number of euro coins in circulation increased moderately to 40.0 billion worth €12.4 billion as at the end of December.

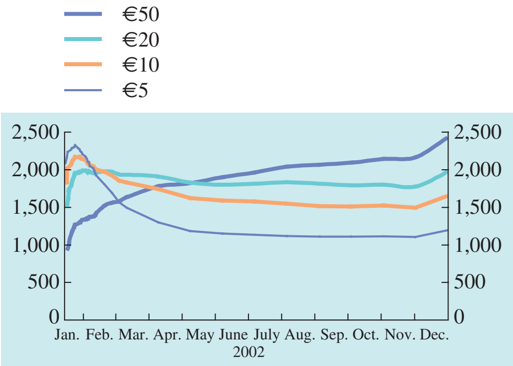
1.4 Withdrawal of the legacy currencies

The circulation of legacy banknotes remained relatively normal until the middle of 2001, when the approaching cash changeover triggered a significant flowback of these banknotes, which accelerated sharply from the beginning of the frontloading period in September 2001. A significant proportion of these were in larger denominations. In value terms, national banknotes in circulation dropped by 29% from €380 billion to €270 billion during 2001. In volume terms, the number of legacy banknotes in circulation decreased from 11.7 billion to 9.6 billion in the same period. In the first two months of 2002, a total of 6.7 billion national banknotes, i.e. 70% of the number of legacy banknotes circulating at end-2001, were withdrawn from circulation. During this period, between 4%

Chart 33

Euro banknotes in circulation in 2002

(millions)



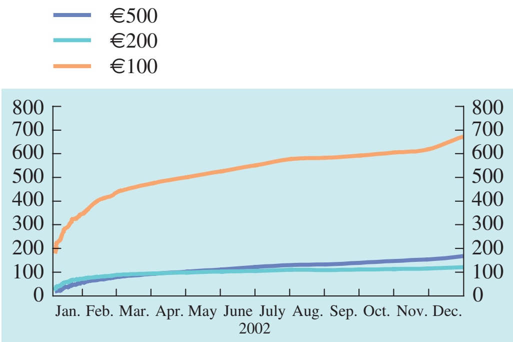
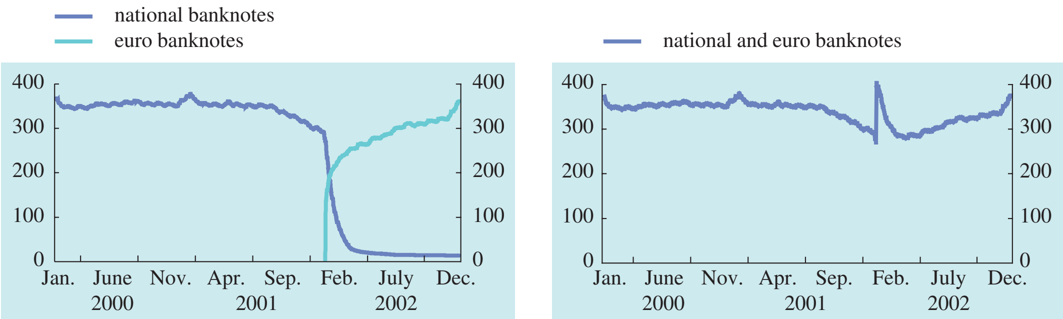


Chart 34

Banknotes in circulation between 2000 and 2002

(EUR billions)



and 6% of the remaining value of national banknotes in circulation was lodged each day at the NCBs. This resulted in sharp declines of €178 billion in January and €58 billion in February in the value of legacy banknotes in circulation. During the remainder of 2002, the pace of the flowback of legacy banknotes slowed down significantly. At the end of the year, the value of legacy banknotes not yet redeemed was €13.3 billion.

2 Production of euro banknotes and coins

2.1 Production of euro banknotes

After the successful launch of the euro banknotes, a general review of the standards, methods and procedures used for their production was conducted by the Eurosystem with the objective of improving both the quality and the efficiency of the overall production process. This review took into account the experience gained at the production sites and also incorporated feedback from the general public, banks and other euro banknote users. New techniques and processes available for production and quality control were also evaluated and implemented for the following production programmes, resulting in improved quality standards at production sites. Furthermore, a greater emphasis was put on the overall management, based on industrial standards, of health and safety and environmental issues related to the production and use of banknotes. In addition, stock was taken of the various materials used in euro banknote production.

This process of continuous improvement will continue to be applied to all future production programmes, both for the current and future banknote series. Some new and enhanced quality standards were defined for the banknote production in 2003.

In April 2001 the Governing Council decided that, in the following years, production of euro banknotes would take place in accordance with a decentralised production scenario with pooling. This means that each euro area NCB is responsible for the procurement of an allocated share of the total euro banknote supply for only a small number of denominations. This pooling arrangement helps to ensure a supply of consistent quality banknotes by reducing the number of production sites for each denomination and enables the Eurosystem to benefit from economies of scale in banknote production.

The necessary exchange of newly printed banknotes between NCBs takes place without payment. In 2002 the procedures for the acceptance, control and auditing of the production of euro banknotes were further improved.

Table 18

Allocation of euro banknote production in 2002

Denomination	Quantity (millions of banknotes)	Value (EUR millions)	NCBs commissioning production
€5	1,131	5,655	FR, NL, AT, PT
€10	1,045	10,450	DE, GR, IE
€20	1,555	31,100	ES, FR, IT, FI
€50	742	37,100	BE, ES, NL
€100	307	30,700	IT, LU
Total	4,780	115,005	

The total production requirements for 2002 amounted to 4.8 billion banknotes. These banknotes are intended to cover any increase in circulation and replace banknotes no longer fit for circulation and to ensure that NCBs have sufficient logistical stocks to accommodate all requests for banknotes, even at seasonal peaks in demand.

The logistical stocks of €200 and €500 banknotes resulting from the launch production were deemed to be sufficient to cover the needs for 2002. Table 18 gives an overview of the allocation of the production to the NCBs.

2.2 Stock management and establishment of the Eurosystem Strategic Stock

Further co-ordination was felt necessary not only of euro banknote production, but also in the area of euro banknote issuance. This resulted in, among other things, an agreement on a framework for the management of logistical stocks in the Eurosystem.

Furthermore, the Governing Council decided on the production of banknotes and the further arrangements for the establishment of a Eurosystem Strategic Stock (ESS). This stock is intended to be used in those circumstances when there are insufficient logistical stocks in the Eurosystem to cover an unexpected increase in demand for euro banknotes or when there is a sudden interruption in the supply of euro banknotes. The ESS is made up of 30% of the total value of euro banknotes in circulation, held in the three highest denominations, and of 20% of the number of lower-value euro banknotes in circulation, held in these denominations. Accordingly, the ESS currently comprises around 1.74 billion banknotes.

The unused part of the Central Reserve Stock, which had been established to cover the risks of a banknote shortage during the cash changeover, was transferred to the ESS. Another part of the ESS will be produced, together with the banknotes for the NCBs' logistical requirements, in 2003.

2.3 Support for the production of euro coins

The Member States are responsible for the production of euro coins. The ECB acts as an independent assessor of coin quality. It supported the implementation and maintenance of a common quality management system in mints producing euro coins. In 2002, production continued at a reduced rate. The quality of the coins was continually assessed via monthly quality reports, quality audits and the evaluation of sample coins taken from production.

3 Common Eurosystem policies on cash handling

The introduction of the euro banknotes and coins posed challenges to euro area NCBs, which have different national traditions and practices as regards cash logistics and services. The Governing Council has underlined on various occasions the importance of a level playing-field for cash services and took a number of measures to promote a fair, competitive environment in this area.

3.1 Eurosystem fee policy and common approach to opening hours and debiting/crediting rules for cash services at NCB counters

A common Eurosystem fee policy for the cash transactions of professional clients at NCB counters was implemented as from 1 March 2002. It defines different levels of services:

- free-of-charge services: these are the basic services that all NCBs provide, taking into account their unique role in providing the economy with cash; and

- fee-based services: these are additional services that NCBs may decide to offer. If offered, a fee must be paid for these optional services, taking into account the fact that they may also be offered by commercial third parties.

The Governing Council also defined a common approach to opening hours and debiting/crediting rules for cash services at NCB counters. The following measures seek to achieve the objective of promoting a level playing-field:

- The NCBs should offer the possibility to lodge and withdraw banknotes and coins for a daily minimum of six hours (the length of this period is to be defined at the national level) in at least some of their facilities.

- Debiting/crediting of cash transactions within the aforementioned time frame should be effected at the time of physical withdrawal/lodgement at NCB counters.

- The NCBs may also apply measures linked to their specific role and tasks in the respective countries (e.g. extended opening hours for cash services, or later debiting/earlier crediting, which in terms of costs for commercial third parties has the same effect as extended opening hours).

3.2 Establishment of terms of reference for the use of cash-recycling machines in the euro area

As an additional measure, a common approach for the use of cash-recycling machines in the euro area was agreed upon. These machines are stand-alone, customer-operated devices capable of receiving, processing and dispensing banknotes. This fully automated cash-recycling process no longer requires additional manual processing of banknotes and shortens the cash processing cycle, thus reducing cash-handling costs significantly.

In a round-table discussion on cash-recycling machines with the European Credit Sector Associations and the manufacturers of these machines, the organisational and technical aspects of using such machines were discussed. Subsequently, the Governing Council approved the Eurosystem's terms of reference for the use of cash-recycling machines by credit institutions and other euro area parties engaged in the sorting and distribution of banknotes. The main elements of these terms of reference are the criteria for authenticating genuine banknotes and the requirements for sorting according to the quality of the banknotes, with a view to preventing the recirculation of counterfeit or suspect banknotes or of banknotes that are no longer fit for circulation, e.g. because they are torn or dirty.

4 Protection of euro banknotes against counterfeiting

Although counterfeits have historically never made up more than a very small fraction of the number of banknotes in circulation in what is now the euro area, the Eurosystem is nevertheless committed to protecting euro banknotes against counterfeiting on the basis of the highest standards possible. The euro banknotes were designed and developed in such a way as to ensure that, in terms of protection against counterfeiting, they are amongst the most sophisticated in the world. In addition, the Eurosystem ran a comprehensive information campaign on the design and security features of the euro banknotes, addressing both the general public and professional cash handlers. The campaign was well received, judging by the results of a survey conducted in 2002 and the number of visits to the information campaign's website. The effectiveness of the preparations for the introduction of the euro cash is also borne out by the fact that the number of counterfeit euro banknotes recorded in 2002 was only about one-quarter of the number of counterfeits of the legacy currencies in 2001.

In 2002 the Eurosystem established a Counterfeit Analysis Centre which co-ordinates the incorporation of statistical and technical information on euro banknote counterfeits from the National Analysis Centres across the entire EU into a comprehensive database at the ECB. The number of counterfeits recorded in 2002 was 167,118. These were distributed as follows across the denominations:

	€5	€10	€20	€50
Quantity	1,039	3,108	14,845	136,133
Percentage	0.6	1.9	8.9	81.4
	€100	€200	€500	Total
Quantity	10,307	1,525	161	167,118
Percentage	6.2	0.9	0.1	100

As can immediately be seen, the number of counterfeit €50 banknotes was particularly high, which reflects the fact that counterfeiting this denomination offers a compromise between maximising the value gained and minimising the likelihood of close scrutiny by members of the public.

With regard to the distribution over time, it is well established that the number of counterfeits shows seasonal fluctuations, with peaks during the holiday seasons. This normal pattern was not discernible in 2002. In the first half of that year, the number of counterfeits recorded was particularly low, as the euro banknotes were still regarded as a novelty, under close scrutiny by the public, and therefore unlikely to be counterfeited. There was an increase in recorded counterfeits in the second half of 2002, although levels remained – by historical standards – relatively low.

The quality of counterfeits was also generally low. Although some ingenious techniques were employed, no counterfeits were discovered that could not be detected on the basis of "look-feel-tilt" tests recommended by the Eurosystem for the recognition of genuine euro banknotes. The Eurosystem nevertheless continues to monitor developments in the graphics industry and assesses the threats these developments might pose in terms of high-quality counterfeits. Indeed, recent developments in technology have made it necessary for the Eurosystem, like many other banknote-issuing authorities, to invest substantially in research and development (R&D). Euro banknotes already contain a variety of security features, all of which are intended either to make banknotes difficult to counterfeit or to make counterfeit banknotes easy to detect.

The Eurosystem's R&D efforts are now focused firmly upon activities that maintain the integrity of the euro banknotes in the face of the threat of counterfeiting. They are directed towards both the technical foundations of future banknote designs and the improvement of existing security features.

This work is vital to meet the demands that will be made on euro banknotes in the future. The Eurosystem carefully monitors developments in the area of euro banknote counterfeiting and will take appropriate counteraction whenever necessary.

The Eurosystem also continued its contributions to international co-operation on counterfeit deterrence in 2002. In April, the international community identified a need for additional resources to support the testing and implementation of counterfeit deterrence technology. The ECB began exploring the possibility of hosting a technical unit in Frankfurt, and the Governing Council agreed in June on the establishment of the International Counterfeit Deterrence Centre (ICDC), to be staffed by ECB personnel and officials from other issuing authorities. The ICDC is the international technical contact point for issuing authorities and others involved in the field of counterfeit deterrence. It also carries out scanning tests to verify deterrence in selected reproduction equipment and acts as a technical reference point. The final details of the establishment and funding of the ICDC were agreed in December 2002.

Opening of the European School, Frankfurt am Main

5 September 2002

Chapter VIII

Payment and securities settlement systems

Overview

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.

On the operational side, the Trans-European Automated Real-time Gross settlement Express Transfer (TARGET) system functioned smoothly and successfully in 2002 with a double-digit business increase in terms of both volume and value. During the year under review, the Governing Council took strategic decisions regarding the future of TARGET and the connection of accession countries to the system. TARGET2 will be designed following a consultation of its users.

As to the Eurosystem's operational involvement in the securities area, the correspondent central banking model (CCBM), intended as an interim solution enabling the cross-border use of collateral, has remained the main tool for this purpose and will be further enhanced. As regards the use of collateral for TARGET intraday and monetary policy credit operations, the developments for 2002 are presented in Chapter II, Section 1.6 on eligible assets.

In the conduct and development of oversight, all systemically important payment systems operating in euro are assessed against the "Core Principles for Systemically Important Payment Systems" (BIS, Basel, January 2001), which were adopted as minimum standards by the Governing Council in February 2001. Moreover, public consultations were carried out on oversight standards for euro retail payment systems and on electronic money security objectives. With the start of the Continuous Linked Settlement (CLS) system in September 2002, the ECB acts as the settlement agent for CLS banks' euro payments and as a co-overseer, with the Federal Reserve System being the lead overseer.

In the field of retail payments, the Eurosystem, acting as a catalyst for change, supported banking industry initiatives to establish a single euro payment area. The aim is to enable European citizens to make payments in the euro area as safely, quickly and efficiently as payments within national borders.

In the area of securities clearing and settlement systems, the assessment of securities settlement systems (SSSs) eligible for the settlement of collateral for Eurosystem credit operations continued and the process of integration and consolidation of securities markets has been closely monitored. The co-operation with the Committee of European Securities Regulators continued with the aim of developing European standards for clearing and settlement activities based on internationally agreed recommendations.

1 Operations of the Eurosystem's payment and settlement systems

1.1 The TARGET system

TARGET is an instrumental part of the integrated euro money market which, in turn, is a prerequisite for the effective conduct of the single monetary policy. Likewise, TARGET continued to fulfil its other two core objectives, namely to increase the efficiency of cross-border payments in euro and to provide a reliable and safe mechanism for the settlement of domestic and cross-border large-value payments.

In 2002 TARGET processed, in terms of value, almost 85% of the total turnover of large-value payments in euro (compared with almost 75% in 2001). This increase is due to, inter alia, the ongoing market consolidation, such as the closing-down of the hybrid system Euro Access Frankfurt (EAF) when the Deutsche Bundesbank launched its RTGS^{plus} system. The continued increase in TARGET cross-border traffic also indicates the diminishing role of correspondent banking in the euro area since the introduction of the euro. In 2002 TARGET had 1,560 direct participants, 2,328 indirect participants and the number of banks and branches addressable worldwide numbered approximately 40,000.

TARGET operations

In 2002 TARGET processed a daily average of 253,016 payments (both cross-border and domestic payments) with a total value of €1,552 billion. This equals an increase relative to 2001 of 20% in terms of volume and 19% in terms of value.

Out of the total TARGET traffic in 2002, cross-border traffic represented 31% in terms of value, compared with 39% in 2001, and remained 21% in terms of volume. Of the TARGET cross-border traffic, 96% in terms of value and 54% in terms of volume were interbank payments, the remainder being cross-border customer payments. The average value of a cross-border interbank payment was €15.9 million, compared with €17.7 million in 2001, and the average value of a cross-border customer payment was €0.8 million, compared with €1.0 million in 2001. Further information, also on peak traffic days, is provided in Tables 19 and 20.

Table 19

Payment traffic in TARGET *)

Volume	2001	2002	Change, %
Overall			
Total	53,663,478	64,519,000	20
Daily average	211,274	253,016	20
Domestic			
Total	42,164,099	50,785,315	20
Daily average	166,000	199,158	20
Cross-border			
Total	11,499,379	13,733,685	19
Daily average	45,273	53,858	19
Value (EUR billions)	**2001**	**2002**	**Change, %**
Overall			
Total	329,992	395,635	20
Daily average	1,299	1,552	19
Domestic			
Total	201,389	271,914	35
Daily average	793	1,066	34
Cross-border			
Total	128,603	123,721	-4
Daily average	506	485	-4

**) 254 operating days in 2001; 255 in 2002.*

Table 20

Peak traffic in TARGET in 2002

Volume	figure	date
Overall	371,758	28 June
Domestic	289,706	28 June
Cross-border	82,079	29 Nov.
Value (EUR billions)		
Overall	2,172	28 June
Domestic	1,489	28 June
Cross-border	689	29 Nov.

As already observed in 2001, TARGET participants tend to submit their payments early. By 1 p.m. more than 50% of the daily cross-border turnover, and almost 75% in terms of cross-border volume, has already been settled in TARGET. The start-up of CLS operations in September 2002 encouraged this pattern as CLS payments in euro have to be made between 7 a.m. and noon. Early submission contributes substantially to the smooth functioning of TARGET and helps to reduce the risk of payment system gridlock resulting from liquidity strains later in the day.

The long-term calendar for TARGET closing days was applied for the first time in 2002. Until further notice, TARGET as a whole, including all the national real-time gross settlement (RTGS) systems, will be closed on TARGET closing days. The implementation of the long-term calendar helped to avoid the uncertainties for financial markets stemming from the calendar changes of previous years.

On 18 November 2002 the new TARGET release went live successfully. The upgrade consisted mainly of software maintenance and the validation of the International Bank Account Number (IBAN) for customer payments. The use of the IBAN is a prerequisite for and a further step towards straight-through processing (STP) for customer payments.

On 27 November 2002 the Governing Council approved a new policy framework for the compensation of TARGET users in the event of a TARGET malfunction. The new compensation regime is based on existing market practices and aims to offer compensation for certain damages in a swift and standardised manner.

TARGET availability

TARGET availability further improved and reached 99.77% in 2002. The number of incidents of downtime continued to decrease, falling by 6% compared with 2001. TARGET contingency measures were enhanced in 2002 in order to increase their efficiency and to address the requirements of systemically important payments and the needs of CLS operations, as well as in view of the lessons learnt from the events of 11 September 2001. Extensive trialling and the first live experience proved the usefulness of the enhanced contingency measures.

Relations with TARGET users

In 2002 the ECB and the NCBs maintained their dialogue with TARGET users. As in the previous year, regular meetings were held with the national TARGET user groups, while at the ESCB level two meetings of the Contact Group on Euro Payments Strategy (COGEPS) were held. In addition, two joint meetings of the TARGET Management Working Group (TMWG) of ESCB representatives and the TARGET Working Group (TWG) of the European banking industry were hosted at the ECB in order to intensify the dialogue on TARGET operational issues at the European level. A close relationship with users ensures that their needs are given due consideration by and receive an appropriate response from the Eurosystem.

Accession process

On 24 October 2002 the Governing Council decided that the central banks of the accession countries will have the possibility – but not the obligation – to connect to TARGET as soon as their countries join the EU. A range of options for such connections, including scenarios to avoid the need for individual euro RTGS platforms, are being elaborated and discussed with the central banks of the accession countries.

TARGET2

Also on 24 October 2002 the Governing Council took a strategic decision on the direction of the next generation of the TARGET system (TARGET2). The main objective of the Eurosystem is to ensure that TARGET evolves towards a system that: (i) better meets customers' needs by providing an extensively harmonised service level; (ii) guarantees cost efficiency; and (iii) is prepared for swift adaptation to future developments, including the enlargement of the EU and the Eurosystem. At the same time, the NCBs will remain responsible for the accounts of and business relations with credit institutions.

TARGET2, which is not expected to become operational before the second half of this decade, will be a multiple-platform system, consisting of individual platforms and one "shareable platform". The latter will be an IT platform shared by a number of central banks which have voluntarily abandoned their individual platforms. Within three years of the start of operation of TARGET2, there will be an assessment of whether the single shareable platform can satisfy the needs of all the central banks and their banking communities not wishing to maintain an individual platform. Eventually, a decision may be taken to build additional shareable platforms at a later stage in the development of TARGET2. As in the case of the present TARGET system, TARGET2 will be a system for the settlement of predominantly systemically relevant, large-value euro payments in central bank money. In addition, as at present, it will be open for payments that users may wish to process in real time in central bank money. TARGET2 will have a far more harmonised service level than the present system. The *core service* of TARGET2, which includes those services and functions that are offered by all TARGET2 components, will have a single TARGET-wide price structure for domestic and cross-border TARGET transactions. The single TARGET-wide price structure will be based on a benchmark RTGS system defined as the one with the lowest average cost per transaction. NCBs may offer additional services which will be priced separately and independently by each NCB. On 16 December 2002 a public consultation on "TARGET2 – principles and structure" was launched.

1.2 The correspondent central banking model

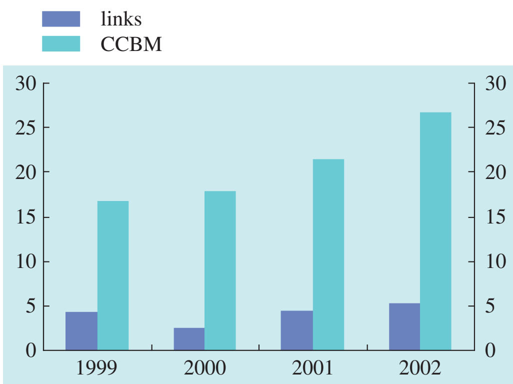
The CCBM enables the cross-border use of collateral by counterparties in monetary policy and intraday credit operations. It was implemented in 1998 as an interim solution until the market developed alternatives. In 2002 the CCBM remained the main tool for the cross-border transfer of collateral to the Eurosystem. The amount of collateral under custody through the CCBM increased from €157 billion at end-2001 to €194 billion at end-2002.

Counterparties have only infrequently delivered cross-border collateral through the alternative to the CCBM, i.e. the eligible links between SSSs. Chart 35 presents the developments in the cross-border use of collateral through the CCBM and the links as a percentage of the total collateral provided to the Eurosystem.

Chart 35

Cross-border collateral as a percentage of total collateral provided to the Eurosystem

(in %)



Following requests from counterparties to maintain the CCBM and to speed up its processing time and extend its operating hours, the Governing Council decided to continue operating the CCBM in the medium term and to allow further improvements. In this respect, at the Eurosystem level, it has been decided to introduce a time benchmark of one hour[1] for internal procedures at the NCBs as from 2004. In any case, some NCBs already started in 2002 to automate certain procedures when implementing a new generation of SWIFT messages. Furthermore, the Eurosystem also had discussions with custodian banks involved in the CCBM with a view to establishing a code of conduct for custodians processing CCBM transactions.

1 *Thirty minutes for the home central bank and thirty minutes for the correspondent central bank.*

2 General issues of payment systems oversight

In 2002 the Eurosystem's oversight activities were aimed at ensuring the continued compliance of systemically important payment systems with existing oversight standards and at developing oversight standards for retail payment systems. During 2002 the Eurosystem started assessing all systemically important payment systems in the euro area against the "Core Principles for Systemically Important Payment Systems"[2]. This included an individual assessment of the national TARGET components. The assessment of TARGET as a whole was carried out by the IMF in 2001. The ECB will report on this assessment exercise later in 2003.

In January 2003 the Governing Council decided that oversight and operational responsibilities for TARGET should be separated within each NCB and the ECB, as a minimum at expert level.

On 8 July 2002 draft "Oversight standards for euro retail payment systems" were issued for public consultation. This document considers the implications of the "Core Principles for Systemically Important Payment Systems" for retail payment systems. While systemically important payment systems have to comply with all ten of the Core Principles, the consultation document presents the view that six of the Core Principles are so fundamental that they should also apply to important retail payment systems. The responses to the consultation were generally positive. Wide support emerged for the approach in general. Commentators appreciated the transparency of the Eurosystem's intentions regarding the oversight of retail payment systems. However, they also remarked that the application of the Core Principles to retail payment systems in the EU countries should be based on harmonised criteria. The comments, which have been published on the ECB's website, will be assessed to determine possible implications for the policy stance.

On 19 March 2002 the report on "Electronic Money Systems Security Objectives" (EMSSO) was issued for public comment. It contains a list of security objectives for e-money schemes. These security objectives focus on the overall reliability and technical security of e-money schemes, in order to increase public confidence in these systems, to provide a level playing-field for the different schemes, and to facilitate interoperability between them. The general approach received support and the comments received are being considered. An amended version of the report was published in February 2003.

Moreover, the Eurosystem, jointly with the NCBs of the Member States which have not yet adopted the euro, is making efforts to identify the scope of and developments in the correspondent banking business in euro. This is being done with a view to obtaining information about developments in the euro payments business as a whole, and not only in the established interbank systems.

3 Large-value payment systems

3.1 Developments in other large-value euro payment systems

The existing four large-value net settlement systems operating in euro – the Euro Clearing system of the Euro Banking Association (EURO 1), the French Paris Net Settlement (PNS), the Spanish Servicio de Pagos Interbancarios (SPI) and the Finnish Pankkien On-line Pikasiirrot ja Sekit-järjestelmä (POPS) – continued to operate smoothly in 2002.

In 2002 the largest of the systems, EURO 1, processed some 134,900 transactions per day

2 *"Core Principles for Systemically Important Payment Systems", Bank for International Settlements, Basel, January 2001.*

with an average daily value of €188 billion. The second largest, PNS, processed some 29,700 transactions per day with an average daily value of €78 billion. The four systems taken together processed around two-thirds of the volume and one-sixth of the value of the transactions processed by TARGET.

In line with recent trends, the number of customer payments again increased in all systems. However, as these are typically low-value payments, the average size of payments declined, and the overall value of payments processed decreased by about 10%.

3.2 Continuous Linked Settlement (CLS)

On 9 September 2002, CLS, a system designed for the settlement of foreign exchange (FX) transactions[3], started its live operations. CLS largely eliminates FX settlement risk by settling the respective transactions in its books on a payment-versus-payment basis.[4] The ECB performs a dual function with regard to CLS: it is involved in its oversight and it provides settlement services.

Oversight of CLS is performed in accordance with the co-operative framework that was outlined in the Lamfalussy Report[5]. The Federal Reserve System is the lead overseer. Prior to the start of CLS, the central banks of currencies now settled in CLS jointly assessed the risks of including their currencies in CLS. In this exercise the ECB concluded that, in general, euro FX transactions would be settled safely and efficiently and should not give rise to undue risks to the euro money market and euro payment systems. The ECB approved the inclusion of the euro in CLS. All other central banks involved reached the same conclusion for their currencies and the Federal Reserve approved the start-up of the system.

To help underpin the legal finality of settlement in CLS, in July 2002 the Bank of England designated the CLS system (the rules of which are governed by English law) under the UK regulations that implement the EU Settlement Finality Directive.

When settling their transactions in the CLS system, banks fund their CLS accounts in the relevant currency via the respective RTGS system. For the euro, the ECB has opened an account for CLS and all payments to and from CLS are processed via the ECB payment mechanism (EPM) and consequently via TARGET. Given the time-criticality of CLS payments, the Eurosystem has improved its contingency arrangements to mitigate the risk of operational failures. Repeated successful contingency tests under live conditions were performed with the banking community in 2001 and 2002.

By December 2002 the daily settlement values in CLS had reached USD 268 billion. This is estimated to be slightly more than 22% of the total FX market turnover. After the US dollar, which has a 47% share, the euro is the most settled currency in CLS (26%). The liquidity impact on the euro markets was limited as the daily pay-ins averaged only €5.2 billion and the average liquidity retention on CLS's ECB account during the morning (7 a.m. to noon) was only around €0.8 billion. CLS has shown good operational stability since its start. In summer 2003 CLS intends to add the Swedish krona, the Norwegian krone, the Danish krone and the Singapore dollar, with the New Zealand dollar and the Hong Kong dollar following later in the year.

3 *The currencies that are currently settled are the US dollar, the euro, the Japanese yen, the pound sterling, the Swiss franc, the Canadian dollar and the Australian dollar.*
4 *For further information, see "CLS – purpose, concept and implications", ECB, Frankfurt, Monthly Bulletin January 2003.*
5 *"Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries", BIS, November 1990.*

4 Retail payment services

Since the introduction of the euro banknotes and coins and the changeover of the payment infrastructures to the euro on 1 January 2002, public attention and demand have focused on the further development of the single euro payment area. It is the Eurosystem's objective to make the euro area a highly competitive retail payment area which provides its citizens with efficient and safe payment means and instruments. Hence, the Eurosystem continued to guide its retail payment policies towards this objective. The Eurosystem can choose to act as a catalyst for change, use its oversight competence and become operationally involved itself. The Eurosystem has pursued its objectives in close co-operation and dialogue with the European Commission and the European banking industry.

At end-2001, the European Parliament and the Council adopted Regulation (EC) No 2560/2001 on cross-border payments in euro. Under this Regulation, banks are obliged to charge for cross-border payments of up to €12,500 (€50,000 as of 1 January 2006) at the same level as for corresponding domestic payments. In July 2002 the Regulation became valid for card payments and ATM withdrawals. It will enter into force for cross-border credit transfers on 1 July 2003.

As a catalyst for change, the Eurosystem is aiming to make it easier for the banking sector to respond to the new environment established by the Regulation. The objective is to foster banks' co-operation in the establishment of a governance structure, business standards and practices and an infrastructure that will allow banks to deliver retail payments in the euro area efficiently and safely. Before the adoption of the Regulation, in November 2001, the ECB issued a report entitled "Towards an integrated infrastructure for credit transfers in euro" to the ECOFIN Council describing a "road map" to make cross-border credit transfers as efficient as domestic credit transfers. The ECB called upon market participants to take the initiative by deciding on a governance structure that would be binding on banks, and to consider one possible infrastructure option (a pan-European automated clearing house (ACH) or a linked ACH) that would make for more efficient processing of cross-border credit transfers.

In 2002 the EU banking industry made progress in this direction. The European Payments Council (EPC) was set up and has launched a comprehensive project for the single euro payment area that aims to enable citizens to make any payment within the single euro payment area as easily and inexpensively as in their home country. The Eurosystem has strongly supported this project, and the ECB has observer status in different working groups of the EPC. In this context, it should also be noted that the Euro Banking Association (EBA) is developing an automated clearing house for euro interbank credit transfers called STEP2, which is scheduled to go live in mid-2003. This will most likely make STEP2 the first service provider for a pan-European ACH according to the definitions of the EPC. The ECB will regularly assess the progress of initiatives towards a single euro payment area and inform the public about its findings.

The ECB also provided its comments on the European Commission's public consultation on the concept of a new legal framework for retail payments in the EU ("A possible legal framework for the Single Payment Area in the Internal Market", MARKT/208/2001 – Rev. 1). The Eurosystem intends to continuously monitor the achievements of the banking industry and refine its strategy in the light of progress.

The increasing use of new communication technologies and the need for specific payment mechanisms for e-commerce have led to a range of developments in e-payments. The ECB organised a conference entitled "E-payments in Europe" on 19 November 2002, at which the market and academia presented their views on current developments in e-payments. Moreover, the issues paper entitled "E-payments in Europe – the Eurosystem's perspective" (ECB, September 2002) was published for public comment as well as for discussion at the conference.

In this context, the ECB has also decided, in agreement with the European Commission, to take on responsibility for the e-Payments Systems Observatory (ePSO), which had come to an end as a European Commission project.

5 Securities clearing and settlement systems

The ESCB has a general interest in the proper functioning of securities clearing and settlement systems. Indeed, their inappropriate functioning might jeopardise the smooth execution of monetary policy and the smooth functioning of payment systems. Disruptions in SSSs can automatically spread to payment systems owing to the existence of delivery versus payment (DVP) mechanisms for the transfer of securities and cash payments. Similarly, central counterparties' inability to clear can prevent the settlement of securities transactions.

The Eurosystem has two roles. First, the Governing Council assesses the compliance of SSSs with specific standards. Those standards were set in 1998 with a view to preventing the Eurosystem from incurring risks when carrying out credit operations. Second, the Eurosystem monitors the ongoing integration and consolidation process in the field of securities clearing and settlement.

In addition, the ESCB co-operates with other authorities responsible for the regulation and oversight of securities clearing and settlement systems at the European level.

In 2002 the ECB also provided comments in response to the European Commission's public consultation on the Communication on clearing and settlement.

5.1 Assessment of securities settlement systems

On 29 August 2002 the Governing Council updated the assessment of SSSs eligible for the settlement of collateral for Eurosystem credit operations.

The Eurosystem acknowledged that SSSs had maintained their efforts to enhance compliance with the standards. In this respect, SCLV/AIAF (Spain), SCL Barcelona (Spain), BOGS (Greece) and Crest (United Kingdom) introduced real-time DVP settlement in central bank money.

Moreover, it was noted that the requirements of the Eurosystem depend on whether NCBs make use of a pooling or of an earmarking system for the settlement of securities in credit operations. In principle, the standards require DVP facilities in order to prevent principal risk. However, in countries where pooling systems are used, securities are typically pledged to the central bank on a free-of-payment (FOP) basis. It was considered that those central banks do not incur any principal risk since the securities are pledged before credit is granted and are released only after the repayment of the credit. In any case, the majority of SSSs in those countries offer DVP facilities for market operations.

Furthermore, this assessment focused particularly on measures to ensure business continuity. It confirmed that eligible SSSs have appropriate procedures in place that would enable a resumption of operations in the case of a disaster. SSSs were in the process of increasing the testing frequency of their backup facilities.

5.2 Consolidation of the European securities infrastructure

The Eurosystem has a keen interest in the integration of the securities infrastructure at the European level. The process of consolidation of the European securities settlement industry evolved further in 2002 following the domestic consolidation in Italy and Spain and the acquisition of the Luxembourg SSS by the entity owning the German SSS, which resulted in the Clearstream Group. On 19 September 2002 the merger between Euroclear, operating in France, the Netherlands and Belgium, and Crest (United Kingdom) became effective. The Euroclear group is expected to adopt a common single settlement engine in 2005.

5.3 Co-operation with the Committee of European Securities Regulators (CESR)

Following the decision of the Governing Council and the decision-making body of the CESR in 2001, a Working Group composed of representatives of the ESCB, representatives of the CESR and an observer from the European Commission continued to operate in the field of SSSs and central counterparties. The aim of the joint work is to develop European standards for clearing and settlement activities based on the "Recommendations for Securities Settlement Systems" (BIS, Basel, November 2001).

In this regard, on 15 March 2002 the decision-making bodies of the ECB and of the CESR launched a public consultation on the nature, scope and objectives of the standards; the potential addressees; the access conditions of systems; risks and weaknesses; settlement cycles; and issues related to the structure of markets. In general, the consulted parties welcomed the initiative on common standards at the European level, and highlighted the need for co-ordination to guarantee a uniform implementation of the new standards. The Working Group continued to discuss proposals for the standards and a further public consultation is envisaged in 2003.

6 Other activities

In July 2002 the ECB released the publication "Payment and securities settlement systems in the European Union: Addendum incorporating 2000 figures", also known as the "Blue Book". This is a statistical update of the 2001 publication.

In August 2002, the second edition of the publication "Payment and securities settlement systems in accession countries" was issued (also known as the "accession country Blue Book"). It describes the situation prevailing in each of the 12 countries as of 2001 and also contains data for the period 1997-2001.

Moreover, a three-day seminar for central bankers entitled "Payment and Securities Settlement Systems" took place at the ECB in August 2002.

Governing Council meeting at the Eurotower on 26 September 2002

Chapter IX

Financial stability and supervision

1 Structure, performance and risks in the banking sector

The monitoring of developments in the banking sector from an EU and euro area-wide perspective was further developed in 2002. A significant part of this activity was carried out under the auspices of the ESCB Banking Supervision Committee (BSC) and relied on two main strands. The first strand consists of the annual analysis of structural developments in the banking industry. The outcome of this analysis – which addresses structural developments relevant to central banks and supervisory authorities and also draws on a recently established set of statistical structural indicators – was published for the first time in 2002.[1] In this context, the BSC also continued to study a number of issues on an ad hoc basis, including developments in banks' liquidity profile and management in the new environment following the introduction of the euro.[2] The second strand refers to the regular macro-prudential analysis of banking sector stability. Conditions and risks to banking stability are monitored on a systematic basis, and a formal assessment is submitted twice a year to the decision-making bodies of the ECB. Work has continued on methodologies for assessing banks' credit risk exposures vis-à-vis different sectors and for conducting stress-test analyses, and on improving the quality and scope of the information available at the EU level. Of the various topics addressed, particular mention should be made of the exposure of banks to cross-border contagion risks. In addition to the work performed by the BSC, internal work has been conducted within the Eurosystem to enhance the analysis of financial stability issues from an overall perspective.

Structural developments

Two main developments in the EU banking sector in 2002 warrant particular attention: first, banks' reorganisation efforts in response to increased cost-income pressures and, second, a rapid increase in the use of credit risk transfer instruments (credit derivatives and securitisation products).

Owing both to income losses following adverse changes in the economic and financial market environment in 2001 and 2002 and to intensified competition, EU banks have been under increasing pressure to reduce costs. Many banks have faced a significant drop, which began in 2001 and further intensified in 2002, in some of the new business lines introduced in the late 1990s (such as private banking, investment banking and asset management). Several EU banks have thus embarked on major restructuring programmes aimed at cutting costs (including staff costs), streamlining the organisation and refocusing on the core business. Despite increased rationalisation efforts, EU banks' cost-to-income ratios increased in 2001. However, banks with assets over €100 billion were able to decrease their ratios in the first half of 2002. The increased efforts by banks should begin to yield more tangible improvements in efficiency in the medium term. The expansion in the use of credit risk transfer products, and especially credit derivatives, intensified in 2002. Credit derivatives are the newest and fastest growing segment of the derivatives business. Despite increased defaults, it is expected that their growth will continue very rapidly. According to a recent survey by the International Swaps and Derivatives Association (ISDA), the global notional outstanding volume of credit derivatives transactions recorded in the survey reached €900 billion by the end of 2001, of which EU banks account for around 35%.

The maturing of the credit risk transfer market could promote a more efficient allocation of risks across both banks and other financial institutions (especially insurance companies). Financial institutions will also be able to price and manage credit risk more accurately. However, there could be added financial stability concerns as a

1 *See ECB "Structural analysis of the EU banking sector", November 2002.*
2 *See ECB "Developments in banks' liquidity profile and management", May 2002.*

result of the distribution of credit risk across financial institutions becoming less transparent for markets and supervisors. Protection selling is, to a significant degree, concentrated among a few banks and insurance companies. These instruments could also increase contagion risks to banks from insurance companies, as well as exposing banks to significant legal and operational risks. The exact amount of risk transferred will, to a large extent, depend on the specific contractual clauses.

The increase in trading of credit risk has been accompanied by progress in internal credit risk assessment systems in anticipation of the New Basel Accord (see the final section of this chapter). This has allowed banks to enhance the alignment of the pricing of credit with the underlying risk and to improve their internal capital allocation. Banks have also been making advances in assessing and controlling operational risks, at least in part as a response to the inclusion of such risks in the New Basel Accord. Finally, the integration, deepening and better liquidity of the money markets in euro, the introduction of new payment technologies and financial innovations have improved banks' ability to manage liquidity risk. At the same time, the risk of liquidity drying up in situations of market turmoil has increased, as banks are becoming more dependent on securities markets. The banking industry has begun to develop more advanced quantitative methods for managing liquidity risk (e.g. liquidity-at-risk models), but the area is still at a relatively early stage of development.

Some of the trends highlighted in the 2001 Annual Report have continued. Banks have continued to expand in central and eastern Europe, which still offers significant growth opportunities. Some further cross-border expansion has taken place within the EU as a result of mergers and acquisitions and the establishment of branches and subsidiaries, but the pace of expansion decreased significantly in late 2001 and 2002. Faced with more difficult market conditions, banks have taken a more cautious approach to the risks associated with mergers and acquisitions, as reflected by the clear reduction in large domestic and cross-border banking mergers. Among smaller banks pursuing cost-saving objectives, the pace of domestic consolidation has remained high.

Since the introduction of the euro, integration within the banking sector has proceeded unevenly, varying according to the areas of banking business.[3] As regards wholesale and capital market-related activities, the formerly segmented national currency-based markets (e.g. securities underwriting) have already largely transformed into an integrated area-wide market. The strong competition fostered by the entry of international financial institutions has substantially reduced the leading role of domestic intermediaries and reduced underwriting fees. The still fragmented infrastructure for the cross-border clearing and settlement of securities transactions represents a major obstacle to cross-border trading and the provision of related asset management services. The integration process has clearly been slower in the retail area, which is due to the traditionally strong local nature of these activities. However, there are increasing links across national markets. In particular, foreign involvement, in terms of ownership structures in national banking systems, is already significant (over 20% in terms of bank capital in the EU as a whole).

Performance and risks

The profitability of EU banks weakened in 2001, and further so in the first half of 2002, owing largely to increased loan loss provisions and reductions in non-interest income, reflecting weaker economic and financial market conditions. After the deduction of tax and extraordinary items, the aggregated return on equity of EU banks declined to 10.1% in 2001, from 12.4% in 2000, although this level of profitability was

3 *For further information, see ECB Occasional Paper No. 6, "Banking integration in the euro area", December 2002.*

still in line with the average levels observed in the period 1995-99.[4] The shift in the distribution was even more pronounced: the number and asset share of banks with a return on equity (ROE) of below 5% increased significantly, while the set of banks with very high profitability (ROE above 20%) shrank markedly. The pace of decline in profitability of the major banking groups accelerated in 2002.

Loan loss provisions accelerated significantly in the first half of 2002 in the major banking groups for which quarterly data are available (and further in the third quarter), as non-performing loans started to accumulate more rapidly. In banking groups with assets over €100 billion, the ratio of loan loss provisions to profits (before provisions) increased by 25% in the first half of 2002. This was a reflection of the higher frequency of corporate sector failures in a number of EU countries and the deterioration in the quality of some international assets. The income of many large banks has been especially hurt by the reduction in income from investment banking, which has suffered because of the dry-up of the primary and secondary capital market and corporate restructuring activity. As a consequence of the turbulent financial markets, firms have tended to reduce equity and bond financing and corporate restructuring operations. Earnings from investment banking came to represent a large share of major banks' profits in the late 1990s and 2000. The financial market turmoil has also reduced the appetite for investing in securities and mutual funds, thus reducing banks' income from asset management and trading activities.

All in all, the financial market turmoil has affected banks more in terms of income reductions than credit and market risk exposures, as banks' direct equity holdings are typically small (on aggregate around 4% of EU banks' consolidated balance sheet total). For many large banks, the recent process of diversification has not generated the desired benefits, as several banking – including international – activities have suffered at the same time. Banks focusing on retail banking and having a strong franchise in domestic markets fared best in the circumstances of 2001 and 2002.

Owing to as yet largely unaffected capital levels and improved risk management techniques, banks have been able to well withstand the shocks in their operating environment. EU banks' aggregate total capital ratio has remained at around 12.0%, i.e. well above the regulatory minimum. In some areas, however, where the downturn in cyclical and financial market conditions has further depressed already low structural profitability, the banking sector has been forced to make structural adjustments. The resilience of the banking sector has been supported by the absence of substantial household and corporate sector imbalances within the EU. However, the uncertainty in the stock markets has narrowed the possibilities for reducing the high levels of debt in some areas of the corporate sector, notably the TMT (technology, media, telecom) industries.

In a nutshell, the EU banking sector has shown remarkable resilience to the adverse developments in 2001 and 2002 and still has the potential to withstand further shocks. However, particular vigilance is called for on the part of banks and supervisors to ensure that adequate capital buffers are maintained amid declining profitability and certain asset quality concerns.

4 *The data referred to in this section are collected by the Banking Supervision Committee. They cover approximately 99% of the EU credit institutions' sector in terms of total assets for the fiscal year 2001.*

2 Arrangements for financial stability and supervision

The debate on the adequacy of EU institutional arrangements for financial stability continued in the course of 2002, driven by inter alia the work conducted in the Economic and Financial Committee (EFC) (see Chapter V). Supervisory responsibilities remain at the national level, in accordance with the subsidiarity principle. The work of the EFC[5], however, made clear that co-operation should be significantly enhanced in order to deal with the increasing integration of financial markets. The EFC's attention also centred on the policies needed to support progress in the integration of financial markets in the EU. The "Report on Financial Integration", approved in April 2002, highlighted the potential benefits of fully integrated financial markets for the EU economies and identified a number of steps to be taken in the regulatory and supervisory field towards achieving this objective. In particular, the report recommended policy actions aimed at removing distortions and obstacles arising from inconsistent implementation and enforcement of financial regulations in the EU. These conclusions were in line with the findings of an industry report, prepared within the European Financial Services Roundtable,[6] which also called for more harmonisation of investor protection rules, consistency of national rulebooks and convergence in supervisory practices.

The EFC reports triggered a comprehensive review of the EU arrangements for financial regulation, supervision and stability, with a view to enhancing the effectiveness of the structures for co-operation, which was endorsed by the ECOFIN Council in December 2002. In this regard, the EFC was mandated by the ECOFIN Council to conduct such a review. The EFC report on "EU Arrangements for Financial Regulation, Supervision and Stability" made a comprehensive proposal for remodelling the structures for co-operation. In particular, the report recommended the extension to all financial sectors of the "Lamfalussy approach", already implemented in the securities field. This would imply the adoption of a more flexible regulatory process, leaving the handling of technical implementing measures to regulatory committees, composed of representatives of the Member States nominated by the relevant ministers according to national models, assisted by supervisory committees. The latter would also be mandated to pursue a more consistent implementation of EC Directives in Member States and strive for convergence of supervisory practices. The proposed new arrangements would be organised along sectoral lines, with regulatory and supervisory committees for banking, securities and UCITS, and insurance and pensions. A special regulatory committee would also be set up for financial conglomerates. A restructured Financial Services Policy Group (renamed the Financial Services Committee, FSC) would provide advice and oversight on financial market issues for the benefit of the ECOFIN Council. The EFC would be the forum responsible for preparing ECOFIN discussions on financial stability. To this end, it would be assisted by the FSC. In the proposed new structures, a role is also acknowledged for the BSC of the ESCB. First, the structural and macroprudential analyses conducted within the BSC will contribute to the EU discussions on financial stability issues. Second, the work accomplished within the BSC towards forging a common understanding between central banks and banking supervisors in several areas of common interest may also serve as a yardstick in the new structures in the field of exchanging confidential information.

The main issues that emerged from the public consultation process that followed the endorsement of a preliminary version of the EFC report by the ECOFIN Council were,

5 *This was the outcome of the EFC "Report on Financial Stability", issued in April 2000, and further refined the following year with reference to financial crisis management.*

6 *F. Heinemann and M. Jopp, "The Benefits of a Working European Retail Market for Financial Services", Report to the European Financial Services Roundtable, Europe Union Verlag, 2002.*

first, the relevance of an institutional balance in the new regulatory process and second, the need to have more formal and transparent consultation procedures with interested parties on draft regulations. From a central banking perspective, three points are of paramount importance. The first concerns the participation of all central banks, including those without direct supervisory responsibilities, in the structures for supervisory co-operation in banking. This is essential for the promotion of financial stability, since banks embody a certain potential for systemic risk, and strains in the banking sector have immediate implications for payment infrastructures and the management of liquidity. The second point relates to the participation of technical experts in the regulatory committees in order to avoid transferring all the burden of technical work on draft regulations to supervisory committees which may be distracted by their important tasks in the area of supervisory practices. The third point refers to the need for a strong technical anchor in the work on financial stability, acknowledging the efforts under way within the BSC and other ESCB structures for monitoring the vulnerabilities of the EU financial system.

Two important multilateral arrangements were agreed in the first part of 2003, under the auspices of the BSC. First, a Memorandum of Understanding on co-operation between central banks and supervisory authorities in crisis situations. This agreement lays down principles to improve the current procedures for co-operation and the exchange of information between the two authorities in crisis situations. Second, a Memorandum of Understanding between seven EU central banks (Austria, Belgium, France, Germany, Italy, Portugal and Spain) which manage a central credit register. This agreement will allow the opening-up of the registers on a cross-border basis.

With a view to providing enhanced support to the efforts under way at the EU level, the ECB has also established a new Directorate Financial Stability and Supervision. In close co-operation with the other ECB areas concerned, the new Directorate will seek to provide a comprehensive overview of financial stability issues relevant to the euro area and will closely follow developments in financial regulation, supervision and the other fields of financial services policy.

With regard to institutional arrangements for financial regulation and supervision in Member States, the following developments in 2002 should be noted. In Austria, the Financial Market Authority commenced its activities in April 2002 as a supervisory authority responsible for all financial sectors. The central bank's involvement was enhanced. Indeed, the central bank is closely involved in the supervisory process, especially in on-site inspections for credit and market risks, and is also in charge of processing all reporting by banks. In Belgium, the institutional relationship between the central bank, the banking and securities commission and the insurance supervisory authority was reinforced also in terms of corporate governance structures; members of the board of the central bank will have a seat on the board of the supervisory authorities and a new Financial Stability Committee chaired by the governor of the central bank will be in charge of co-ordinating the supervision of the financial sector. The purpose of this reform is, among other things, to exploit synergies in areas of common interest, such as financial stability, through the pooling of resources. In Germany, the newly established supervisory authority (encompassing the banking, securities and insurance sectors) commenced its activities in May 2002, while the Deutsche Bundesbank's involvement in prudential supervision was enhanced. In Finland, the operational framework of the Financial Supervision Authority is under review with a view to improving its functionality. In France, a legislative proposal was launched to establish a new authority, the Financial Market Authority (FMA), responsible for the regulation and supervision of securities markets. The FMA will combine the functions of the stock exchange committee and the financial market council in order to streamline the institutional framework for securities regulation and supervision. In Ireland, the legislative process continued with a view to establishing the Irish Financial Services Regulatory Authority, which will be a constituent but autonomous part of a restructured central bank, the Central Bank and Financial Services Authority of Ireland. The new regulatory authority will be responsible for the regulation and supervision of all financial sectors, including both prudential and consumer issues. In the Netherlands, work continued implementing the institutional reform based on a functional distinction between prudential supervision and the conduct of business issues. While a separate authority is overseeing the conduct of business, the central bank and the insurance and pension fund supervisory institution are responsible for prudential supervision. Closer co-operation has been established between both prudential supervisors. Representatives of both institutions have a seat on each other's board and, in December 2002, full integration was proposed to the ministers responsible. All in all, the above-mentioned developments have led to a consolidation of the number of supervisory authorities and to a revised and, in most cases, enhanced involvement of central banks in prudential supervision.

3 Banking and financial regulation

In the area of banking regulation, the revision of the capital framework remained the main issue at the international and EU level in 2002. At the international level, the Basel Committee on Banking Supervision (BCBS) intensified its efforts to further develop and refine the main elements of the three pillars of the proposed framework, namely minimum capital requirements, the supervisory review process and market discipline. In July 2002 the BCBS reached agreement on a number of important issues relating to the finalisation of the New Basel Accord. This agreement encompasses, inter alia: a specific treatment of banks' exposures to small and medium-sized enterprises (SMEs); the carrying out of conservative credit risk stress testing under pillar two by banks adopting the internal ratings-based (IRB) approach; the narrowing of the gap between the advanced and foundation IRB approaches; a more flexible pillar one capital treatment for operational risk; and the transitional imposition of a single capital floor, based on the capital estimated under the current Accord. In addition, the BCBS confirmed a revised time frame for finalising the Accord, whereby the final (third) consultative paper is expected to be released in the second quarter of 2003 for public consultation, while the New Basel Accord will be finalised in the fourth quarter of 2003 and implemented at end-2006. In October 2002 the BCBS launched the third and final Quantitative Impact Study (QIS 3) with the aim of making a thorough assessment of the impact of the new Basel rules before the launch of the third consultative paper. The results of QIS 3 are expected in early summer 2003. The Accord Implementation Group, a sub-structure of the BCBS mandated to deal with implementation issues, became operational in 2002.

At the EU level, work on reforming the regulatory capital framework for banks and investment firms was undertaken by the European Commission in parallel with the BCBS. In November 2002, the Commission initiated a pre-consultative dialogue on the matter (the "Structured Dialogue") with the financial services industry and other interested parties. A cover note and a working document setting out the Commission's current thinking on the new EU capital adequacy framework for banks and investment firms were published as the basis for this dialogue. The Commission intends to publish a third consultative paper in early summer 2003, i.e. shortly after the BCBS's third consultative paper, for formal consultation at the EU level. It is expected that subsequently, in the first quarter of 2004, the Commission will issue a proposal for a draft Directive on the regulatory capital for credit institutions and investment firms amending the existing EU provisions. The new regulatory framework is expected to come into effect at the same time as the New Basel Accord, i.e. at the end of 2006.

In response to a request from the Barcelona European Council of March 2002, the European Commission will also be responsible for carrying out a study on the likely consequences of the new capital framework for all sectors of the European economy, with a particular focus on SMEs. The aim is to conclude this study by autumn 2003.

The ECB, which continues to provide its input to the decision-making process in this area mainly through its participation in an observer capacity in the relevant committees, remains supportive of the thrust of the regulatory reform as developed so far. Among other things, the ECB welcomed the introduction of stress tests under pillar two for banks adopting the IRB approach; this, in conjunction with the adoption of a flatter risk-weight curve for corporate credits (agreed by the BCBS in November 2001), is expected to contribute to a lower degree of fluctuation in capital requirements over the economic cycle. Subject to proper finalisation, the new framework would be instrumental in strengthening financial stability. As regards EU-specific issues, considerable importance is attached to ensuring an appropriate treatment of banks' exposures to SMEs and achieving fair treatment for small and medium-sized banks and investment firms whose capital requirements should be commensurate with their specific risk profile. Moreover, convergence of supervisory practices is also considered important and will become a core task of the level three banking supervisory committee.

In the area of financial regulation, good progress has been made in the adoption of the Community measures foreseen in the Financial Services Action Plan (FSAP). In particular, the priority objectives set by the Barcelona European Council, such as the Financial Conglomerates Directive, the Market Abuse Directive and the Regulation on International Accounting Standards, were nearly all met in 2002. This legislative progress was accompanied by an increasing awareness of the potential benefits of further financial market integration (see Chapter V). In the field of securities regulation, work has been progressing within the "Lamfalussy framework", which was proposed by the Committee of Wise Men on the Regulation of European Securities Markets. The Market Abuse Directive was the first to distinguish framework principles (Level 1 legislation) from the implementation of technical details (Level 2 regulations) and to allocate a comitology role to the adoption of Level 2 regulations to the European Securities Committee. In addition, the Commission's proposals for Directives on Prospectuses and, in particular, for the revision of the Investment Services Directive are widely reliant on the practicability of the Lamfalussy-type regulatory procedures. The recently established Committee of European Securities Regulators has also initiated, at the Commission's request, technical work on implementing measures for the Directives on Market Abuse and Prospectuses. The ECB participates with observer status in the Financial Services Policy Group (FSPG), which monitors the progress being achieved in the implementation of the FSAP. In addition, in accordance with its statutory tasks, the ECB is consulted on the draft proposals for Directives in the field of financial regulation, as in the case of those mentioned above.

Combating money laundering and the financing of terrorism remained a priority issue in 2002. There were three main developments in this area. First, many countries were extensively involved in the process of implementing the eight Special Recommendations against terrorism financing put forward by the Financial Action Task Force (FATF). In this context, the FATF devoted considerable efforts to providing a detailed interpretation of these standards.

Second, the FATF began a review of its 40 Recommendations against money laundering. The review covers, inter alia, customer identification and due diligence, suspicious transaction reporting, regulation and supervision, corporate vehicles and non-financial businesses and professions. Third, the IMF, the World Bank and the FATF have developed a common methodology for assessing countries' compliance with the FATF's 40 Recommendations. The FATF's standards will be added to the standards and codes guiding the surveillance activities of the IMF and the World Bank, such as the preparation of the Reports on the Observance of Standards and Codes and the carrying-out of Financial Sector Assessment Programmes. The ECB participates in the FATF in its capacity as an observer.

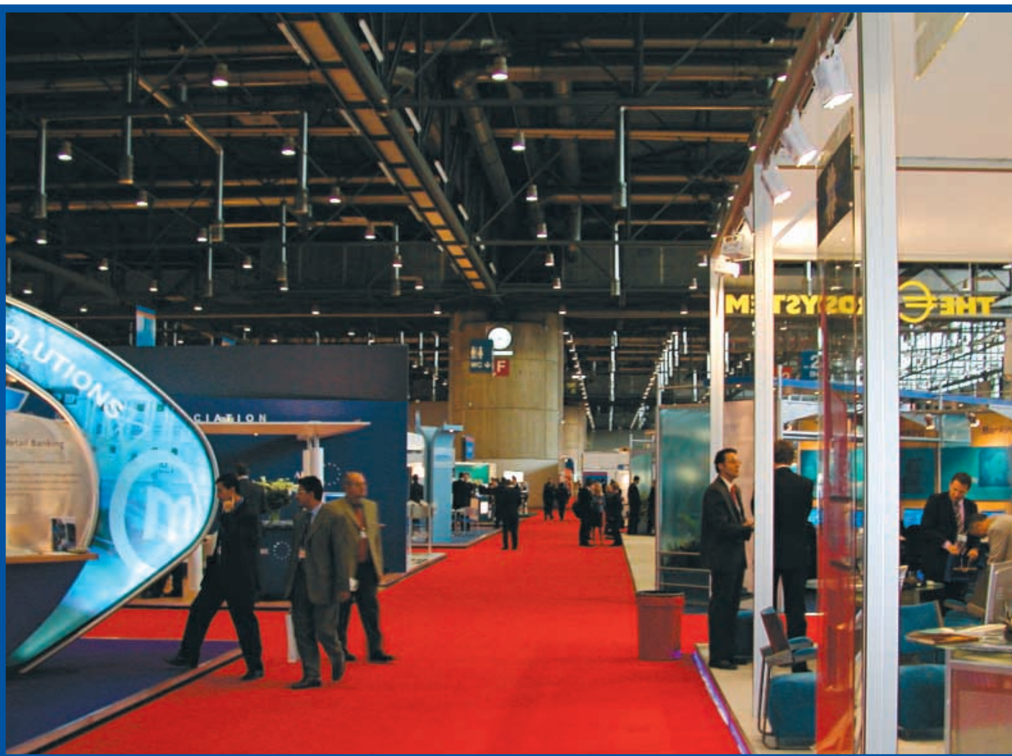
In the accounting field, the International Accounting Standards Board (IASB) has embarked on the modernisation and improvement of the existing International Accounting Standards (IAS), as well as on major projects aiming at convergence with US Generally Accepted Accounting Principles. In this context, the IASB issued drafts for IAS 32 on the disclosure and presentation of financial instruments and IAS 39 on the recognition and measurement of financial instruments. The possible extension of the use of fair value accounting under IAS 39 is under consideration. The ECB issued an Opinion on applying fair value accounting in the banking sector in November 2001.[7] As regards developments in the EU, Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of 19 July 2002 provides that listed companies shall apply "international accounting standards"[8] from 2005 onwards when drawing up their consolidated financial statements. The purpose of the Regulation is to achieve harmonisation of financial information in order to ensure a high degree of transparency and comparability of financial statements. A new Accounting Regulatory Committee (ARC) was established to assist the Commission in adopting the standard(s) applicable under this Regulation. The ECB has been invited to attend meetings of the ARC as an observer.

With regard to corporate governance issues, following the report of the High Level Group of Company Law Experts on a modern regulatory framework for corporate governance in Europe, the Commission began work on an action plan to implement the Group's recommendations. The ECB will make its contribution to the development of this action plan via its participation in the relevant EU fora in which the plan is discussed.

7 *See ECB "Fair value accounting in the banking sector: ECB comments on the "Draft standard and basis for conclusions – financial instruments and similar items" issued by the Financial Instruments Joint Working Group of Standard Setters, 8 November 2001.*

8 *According to Article 2 of the Regulation, "international accounting standards" shall refer to International Accounting Standards (IAS), International Financial Reporting Standards (IFRS) and related interpretations (SIC-IFRIC interpretations), subsequent amendments to those standards and related interpretations, future standards and related interpretations issued or adopted by the International Accounting Standards Board (IASB).*

30 September to 4 October 2002



The Eurosystem stand at the financial services fair Sibos 2002, which took place in Geneva

Chapter X

Statistical framework

1 Introduction

In 2002 the provision of statistics proceeded smoothly, with further improvements in terms of quality and availability. Additional important enhancements are expected following the introduction of the new Regulations on the consolidated balance sheet of the MFI sector and on MFI interest rate statistics, the Guideline on quarterly financial accounts and other legal acts that are currently in preparation. All of this has been done in close co-operation with the NCBs, which collect data from the reporting agents and transmit them to the ECB, which, in turn, produces euro area aggregates.

Efforts have been made to strengthen co-ordination in order to enhance the availability and timeliness of internationally comparable and consistent monthly and quarterly data. Steps have also been taken towards the development of a comprehensive statistical framework of quarterly financial and non-financial accounts, aimed at enhancing consistency between different statistics. In 2002, the ECB held its first Conference on Statistics and also ran seminars involving users of data, in particular on seasonal adjustment and financial market statistics.

The Eurosystem seeks to meet the need for reliable, comprehensive and high-quality statistics in a way that minimises the reporting burden on institutions. In doing so, it makes use of existing statistics wherever possible. New statistical requirements are subject to a merits and costs procedure involving reporting agents. During 2002 the formal procedure for assessing the benefits and costs of new statistics was further refined.

The Eurosystem has provided assistance to accession countries in the development of high quality statistics, among other things through the organisation of various seminars on specific types of statistics (see Chapter VI).

2 Money and banking statistics and statistics on financial markets

The regular provision of money and banking statistics and statistics on financial markets proceeded according to schedule.

MFIs report balance sheet data on a monthly and quarterly basis in order to fulfil statistical requirements which were established at the start of the EMU. The "List of MFIs for statistical purposes" is updated monthly and published on the ECB's website. The purpose of this is to maintain a consistent application of the definition of an MFI across the euro area and the EU.

During 2002 the ECB and NCBs devoted significant resources to the implementation of the ECB Regulation on the consolidated balance sheet of the MFI sector (ECB/2001/13), as adopted by the Governing Council in November 2001. The new requirements are being implemented in co-operation with credit institutions and their associations. For this purpose, the Guidance Notes to Regulation ECB/2001/13 on MFI balance sheet statistics were published in November 2002. Data compiled in accordance with the new Regulation were reported in early 2003 for the first time. The main enhancements to the MFI balance sheet statistics relate to more detailed monthly information on loans and deposits and to new statistics on revaluation adjustments applied to securities and loans. The more detailed information refers to the availability of breakdowns by type of instrument, maturity at issue and counterparty sector of the MFI balance sheet items. As to the revaluation adjustments, this will significantly improve the derivation of flows on a monthly basis. Moreover, the adjustments may have their own information content and enrich the analysis of monetary aggregates and counterparts (e.g. the write-offs/write-downs of loans).

Similarly, the ECB and NCBs devoted significant resources to the implementation of the new ECB Regulation on MFI interest rate statistics (ECB/2001/18) adopted by the Governing Council in December 2001. These statistics will provide comprehensive, detailed and harmonised interest rate data, which will considerably enhance the analysis of monetary policy transmission and monetary analysis itself. They are also needed for assessing financial stability. In total 45 indicators are compiled, in respect of both outstanding amounts and new business. The new MFI interest rate statistics will be available to the ECB by the 19th working day after the end of the reference month. The year 2003 is considered as a phasing-in period. In this respect it is also worth noting that a bank lending survey has been developed by the Eurosystem to complement the statistics on interest rates.

In November 2002 the Governing Council adopted a Regulation (ECB/2002/8) on the provision of monthly statistics on the holders of money market funds shares/units, broken down by residency of the holder. The aim of this amendment to Regulation ECB/2001/13 is to enhance the long-term stability and quality of data on the holders of money market funds shares/units, which are already used in the calculation of M3.

In the light of the decision to use 12-month growth rates, calculated from seasonally adjusted data, for the comparison of M3 growth with the reference value, further efforts were also made to ensure a high standard of these statistics. Flow adjustments were improved by means of a more accurate allowance for exchange rate changes (affecting non-euro items in MFI balance sheets) and their application extended to cover the more detailed quarterly data. This permits the correct calculation of growth rates of, for example, sectoral holdings of deposits with and borrowing from MFIs.

New indicators have also been developed for the purpose of assessing financial stability and structural developments in banking.

In January 2003 the ECB published, for the first time, statistics on non-monetary financial institutions (other than insurance corporations and pension funds). The statistics show euro area outstanding end-quarter stocks of investment funds broken down by investment policy (equity, bond, mixed, real estate and other investment funds) and by restrictions, if any, on the purchase of the funds' units/shares (general public funds and specialised investor funds). These statistics are not yet fully harmonised across the euro area, although NCBs have already taken measures to make their national contributions as consistent as possible. On this basis, euro area aggregates of an acceptable quality can be compiled.

The Eurosystem also addressed some issues regarding the impact of the euro cash changeover on the presentations of the national breakdown of the MFI balance sheet statistics, which underlie monetary statistics.

The securities issues statistics have been enhanced. The implementation of a new calculation method, separating the growth of transactions from revaluations, reclassifications and other changes unrelated to transactions, has resulted in more accurate and consistent growth rates. Besides, in January 2003 the ECB started, on the basis of the preparations of the ECB and NCBs, the regular publication of new monthly statistics on the outstanding amounts of quoted shares, broken down by sector of the issuer.

Meanwhile, the ECB has continued developing common methodologies for calculating comparable euro area statistical indicators of financial markets.

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 (b.o.p.) and annual international investment position (i.i.p.) data and of the Eurosystem's monthly international reserve position proceeded effectively in 2002.

As a significant improvement, in November 2002 the ECB published i.i.p. data for year-end positions from 1999 to 2001 showing the euro area asset and liability positions separately, whereas previously only net positions had been available. The changes in the i.i.p. between year-ends are partly explained by the b.o.p. flows during the year. In addition, the stock data reflect valuation effects arising from changes in asset prices and exchange rates, and other changes (e.g. write-offs, reclassifications) not related to flows. The above-mentioned improvement therefore considerably enhances the information content and analytical value of euro area i.i.p. statistics.

As in previous years, the Eurosystem has undertaken work to improve the quality and availability of data. One of the major challenges lies in portfolio investment. In June 2002, the ECB published a report outlining possible steps to be taken at the national level in order to enhance the portfolio investment collection systems. The ECB, together with the NCBs, is developing a centralised securities database aimed at improving the quality of portfolio investment data. The ECB has also contributed extensively to the work at the European level to define criteria and operational indicators for assessing the quality of balance of payments and related statistics. Further steps have been taken to improve the consistency between b.o.p. and related data on the one hand, and money and banking data and the rest-of-the-world sector in the national accounts on the other.

During 2002 proposed amendments to ECB Guideline 2000/4, which lays down the legal framework for the compilation of euro area b.o.p., international reserves and i.i.p. statistics, were considered. An update of this Guideline is planned for the first quarter of 2003.

An updated version of the annual publication "European Union balance of payments/international investment position statistical methods" was released in November 2002. This publication provides information on the statistical methodologies applied in Member States to compile b.o.p. and i.i.p. statistics and, as such, improves the transparency of the compilation of euro area statistics.

Since October 1999, the ECB has been publishing data on nominal and real effective exchange rates for the euro, and has made data available for an assessment of the international role of the euro.

4 Financial accounts

The regular provision of quarterly financial accounts data for the euro area non-financial sectors, published for the first time in May 2001, proceeded smoothly. The Guideline of the ECB on the statistical requirements in the field of quarterly financial accounts, as adopted by the Governing Council in November 2002, will ensure that regular provision of quarterly financial accounts within the Eurosystem continues. The Guideline covers current data needs for the compilation of the Monetary Union Financial Accounts and the reporting requirements for national data, especially on insurance corporations and pension funds, that will shortly become available. The new Guideline came into effect in November 2002.

Further improvements have been made in financial accounts statistics by ensuring consistency between capital and financial accounts. In addition, the statistical treatment of non-returned banknotes has been addressed.

5 Government finance statistics

As in previous years, the ECB published annual data on government revenue and expenditure in the euro area. The data also provide details on government debt and an analysis of the difference between government deficits and changes in government debt. The transmission of these annual data progressed without difficulty in 2002. An ECB Guideline on statistical reporting requirements and the procedures for exchanging statistical information in the field of government finance statistics is in preparation.

6 General economic statistics

General economic statistics covering prices and costs, national accounts, labour markets, and a wide range of other economic data support the ECB's monetary policy strategy. The ECB and the European Commission (which has the main responsibility for these statistics at the EU level) collaborated closely in monitoring the implementation of the Action Plan on EMU Statistical Requirements, which was presented to the ECOFIN Council in September 2000. As a follow-up to the EMU Action Plan and other initiatives, improvements have been made in general economic statistics at the national and the European level, but much remains to be done. A Communication issued by the European Commission in November 2002 detailed the progress made towards improved methodologies for euro area statistics and indicators, and envisaged further progress. The ECB also contributed, as in the past, to a further Progress Report on Information Requirements in EMU, which reviews the achievements and requirements under the EMU Action Plan and which has meanwhile been adopted by the ECOFIN Council.

In addition, the ECB has stressed the need for further enhancements in the worldwide comparability of statistics.

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 2002, as in previous years. An update of the Memorandum of Understanding on Economic and Financial Statistics between the ECB and Eurostat is in preparation. The ECB works closely with the European Commission, in part via the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB), in which statisticians from Eurostat, the national statistical institutes, the ECB and the NCBs are represented. The ECB has welcomed the adoption of new internal rules of procedure for the CMFB to deal with consultations for the purpose of the Excessive Deficit Procedure.

The ECB is also in close contact with the BIS, the IMF and the OECD concerning statistical matters. In co-operation with European Community institutions and international organisations, the ECB contributes towards defining international statistical standards and promotes their observance.

24 and 25 October 2002

The Second ECB Central Banking Conference in Frankfurt

Chapter XI

Other tasks and activities

1 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 States[2] must also consult the ECB on any draft legislative provisions on the instruments of monetary policy.

In total, 32 consultations were initiated in 2002, 30 by Member States and two by the Council of the European Union. Of these 32, nine concerned means of payment, seven statistics, and 11 rules which could influence the stability of financial institutions and markets.

For an overview of ECB Opinions over time, please refer to the ECB's website (www.ecb.int). In addition, the box below lists the consultations initiated in 2002.

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 10

Consultation procedures in 2002

(a) Consultations from Member States[1]

No.[2]	Originator	Subject
CON/2002/1	Finland	Revision of the Credit Institutions Act to include e-money.
CON/2002/2	Germany	Amendment to the Foreign Trade and Payments Regulation concerning the collection, compilation and distribution of monetary, financial, banking, payment systems and balance-of-payments statistics.
CON/2002/3	Belgium	Compilation of the balance-of-payments statistics and the international investment position of Belgium.
CON/2002/4	Denmark	Amendment to the Act on money laundering to counter the financing of terrorism.

1 On September 2002 the Governing Council endorsed changes to the disclosure procedures with regard to ECB Opinions issued upon request of national authorities. Henceforth, ECB Opinions will, as a rule, be published on the ECB's website six months after the date of adoption. For ECB Opinions of policy importance, the current practice will be kept, i.e. immediate publication on the ECB's website. The Governing Council also approved the publication on the ECB's website of previously adopted ECB Opinions and EMI Opinions. In both cases the relevant national authorities will be informed thereof.

2 Consultations are numbered according to the order in which they are adopted by the Governing Council.

No.[3]	Originator	Subject
CON/2002/5	The Netherlands	Transposition of international law on fighting terrorism and compliance with financial sanctions into the Sanctions Act.
CON/2002/6	France	Abrogation of the legal tender status of banknotes and coins denominated in French francs.
CON/2002/7	Ireland	Amendment to the Economic and Monetary Union Act on provisions for the payment into the Irish Government's Exchequer by the Central Bank of Ireland as net income from the issue of coin.
CON/2002/8	Denmark	Amendment to the Securities Trading Act on collateral and the clarification of certain competencies with regard to stock exchanges, data protection and insider trading.
CON/2002/9	France	Amendments to the Decree on financial relations with foreign countries affecting balance-of-payments and international investment position statistics.
CON/2002/10	Denmark	Amendment to the Financial Services Act and other financial acts, with regard to the supervision of company pension funds, best practices for security traders, etc.
CON/2002/12	Finland	The authority of the Finnish Ministry of Finance to issue commemorative coins with legal tender status in Finland.
CON/2002/13	Belgium	Introduction of a comprehensive prudential supervision of the financial sector and financial services, as well as specific rules on secondary markets for financial instruments.
CON/2002/14	Spain	Payment of the Banco de España's profits to the Treasury.
CON/2002/15	Finland	Rounding of payments, effected by a bank card or other payment cards, denominated in euro to the nearest five cent.
CON/2002/16	Ireland	Draft Central Bank and Financial Services Authority of Ireland Bill, 2002.
CON/2002/17	Luxembourg	Regulation on the designation of competent national authorities with regard to counterfeiting.
CON/2002/18	Belgium	Clarification of the specific relationship between the institutional framework of the Nationale Bank van België/Banque Nationale de Belgique and the general rules concerning public limited liability companies.
CON/2002/19	Austria	Implementation of "FATF Special Recommendations" concerning money laundering and the combating of the financing of terrorism.
CON/2002/20	Austria	Amendments to basic and reference interest rates.
CON/2002/21	Sweden	Amendments regarding the collection of balance-of-payments statistics and the liquidity criterion for securities used in monetary policy operations as well as the proposed out-sourcing of some parts of this process.
CON/2002/22	Sweden	Proposal establishing the National Audit under the Swedish Parliament, including amendments to the Sveriges Riksbank Act.
CON/2002/23	Finland	Revision of the Act on the Financial Supervisory Authority, including revised operating methods and new powers regarding sanctions.
CON/2002/24	Belgium	Prevention of the use of the financial system for the purpose of money laundering.
CON/2002/26	Greece	Legal protection of euro banknotes.

3 *Consultations are numbered according to the order in which they are adopted by the Governing Council.*

No.[4]	Originator	Subject
CON/2002/27	Finland	Emergency Powers Act on the regulation of the Finnish financial markets in emergency conditions.
CON/2002/28	Sweden	Sveriges Riksbank and the publication of interest terms.
CON/2002/29	Sweden	Introduction of a new survey-based system for the collection of balance-of-payments statistics.
CON/2002/30	Italy	Provisions on bond conversion under Law No. 483/93 affecting the Banca d'Italia's balance sheet.
CON/2002/31	Italy	Provisions of the 2003 Budget Law on banknotes and coins.
CON/2002/32	France	Draft law on financial security.

(b) Consultations from European institutions [5]

No.[4]	Originator	Subject	Publication
CON/2002/11	EU Council	Recommendation on the appointment of the Vice-President of the European Central Bank.	OJ L 101, 14.4.2002, p. 17
CON/2002/25	EU Council	Regulation of the European Parliament and of the Council concerning delays of transmission of the main aggregates of national accounts, derogations in this area and transmission of employment data in hours worked.	OJ C 253, 22.10.2002, p. 14

4 *Consultations are numbered according to the order in which they are adopted by the Governing Council.*
5 *Published on the ECB's website.*

2 Compliance with the prohibitions on 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, which also monitors the ECB's own compliance with the 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 central governments and other public authorities, public undertakings 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 2002, the General Council found three cases of non-compliance with the above Treaty requirements and the associated

Council regulations by NCBs of Member States. In each case, the amount of coins held by the NCBs and credited to the public sector following the euro cash changeover exceeded the limit of 10% of the coins in circulation laid down in Article 6 of Council Regulation (EC) No. 3603/93. In the case of Greece, the limit was exceeded in the first three months of 2002, while in the case of France and Finland, this problem remained throughout the year and had not been corrected by the year-end. The General Council has urged the NCBs of the latter two Member States to take immediate corrective action.

3 The administration of the borrowing and lending operations of the European Community

In accordance with Article 123 (2) of the Treaty and Article 9 of Council Regulation (EC) No. 332/2002 of 18 February 2002 (which replaces Article 11 of Council Regulation (EEC) No. 1969/88 of 24 June 1988), the ECB continues to have responsibility for the administration of the borrowing and lending operations of the European Community under the medium-term financial assistance facility. During 2002, however, the ECB performed no such administration tasks, as there was no outstanding balance at the end of 2001 and no new operations were initiated during the year.

The jury of the international architectural competition for the ECB's new premises visits the new site in Frankfurt, the Grossmarkthalle

The jury's initial meeting on 30 and 31 October 2002

Chapter XII

External communication and accountability

1 The ECB's communication policy and activities

1.1 Communication activities

Efficient and appropriate external communication is indispensable for a central bank. Using a variety of communication tools the ECB – in close co-operation with the NCBs of the Eurosystem – continually strives to enhance the European public's understanding of its tasks, its strategy and the decisions based on that strategy. In 2002 work was undertaken to further improve the effectiveness of external communications. At the same time, it is important to maintain continuity and steadiness in the communication activities in order to increase the public's familiarity with the framework of monetary policy and other central banking-related matters in the euro area.

The first few months of the year were dominated by the Euro 2002 Information Campaign, entailing an extraordinary communication effort in which the Eurosystem helped euro area citizens to get to know their new currency (see Box 11). As far as communication on other issues is concerned, the ECB employed its regular set of communication tools: press releases, press conferences, periodical publications (Annual Report and Monthly Bulletin), public speeches and interviews given by members of the ECB's decision-making bodies, as well as brochures and other printed publications. This wide variety of tools enables the ECB to reach many different audiences, ranging from academics and banking specialists to media representatives, students and the general public.

Furthermore, the ECB contributes to the dissemination of research findings within the field of monetary and general economic research by publishing Working Papers and Occasional Papers and organising academic conferences, seminars and workshops. In 2002 the main events of this kind were the seminar held within the framework of the Asia-Europe Meeting in April, the seminar of the Eurosystem and Latin American Central Banks in May, the Second ECB Central Banking Conference 2002 on "The transformation of the European financial system" in October, and the high-level seminar on the EU accession process in December.

A separate communication activity is the reception of visitor groups at the premises of the ECB. This is an opportunity, in particular for students, to gain first-hand knowledge of the ECB's activities. During 2002 more than 9,000 visitors were received at the ECB, and since its inception in 1998, the ECB has welcomed more than 40,000 visitors.

An overarching factor in many of these communication activities is the ECB's website (www.ecb.int) which gives access to all documents published by the ECB. The frequency of visits to the website as well as the use of the e-mail hotlines remained high in 2002. The website also served as a platform for the launch of public consultations.

Public consultations were used quite extensively as a communication instrument in 2002, with a total of six public consultation procedures being initiated by the ECB. Interested parties were invited to provide their comments either to the ECB or to NCBs. Both the ECB and the NCBs used their websites for the consultations. The subjects of the public consultations included payment systems and the operational framework for monetary policy.

Co-operation with the NCBs is crucial in the field of communications and a prerequisite for achieving the optimal results from the resources allocated for these purposes within the ESCB. In the process of co-ordination, special emphasis is put on the efforts to ensure "single voice" communication on the single monetary policy in the euro area. Equally important is the ESCB's ability to address a variety of regional and national audiences in their own respective languages and contexts.

The ECB continues to look for ways of further improving the usefulness of the existing tools. As part of these efforts, the ECB conducted a survey in the autumn of 2002 on the readership of its Monthly Bulletin. In the same vein, a project has been launched to improve the design of this publication.

1.2 Important communication issues in 2002

A number of topical issues can be identified as being among the most important for the Eurosystem's communication in 2002. These issues are dealt with in detail in the relevant chapters of this Annual Report. However, they are also mentioned in brief below to give an overview of the communications challenges facing the Eurosystem in 2002.

The ECB was proactive on some of these issues, with a view to increasing the public's knowledge of matters relating 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 general public.

Some of the most important communication issues in 2002 were as follows:

- The monetary policy stance (see Chapter I).
- The introduction of euro banknotes and coins on 1 January 2002. The Euro 2002 Information Campaign was successfully concluded in the second quarter of 2002 (see Box 11).
- The Eurosystem's role in the EU accession process (see Chapter VI).
- Monetary policy operations (see Chapter II).
- Discussions on supervisory issues and financial stability at the European and international level (see Chapters V and IX).
- The structure of financial markets in the euro area (see Chapters V and IX).
- Organisational matters of the ECB, in particular the launch of an international

Box 11

Euro 2002 Information Campaign

The Eurosystem launched the Euro 2002 Information Campaign at the beginning of 2001. The purpose of the campaign was to familiarise the public with the new currency and the modalities of the changeover to euro banknotes and coins. The campaign was unprecedented in many ways. It deployed the same creative concept and structure throughout the euro area in the 11 official Community languages. The campaign also set out to reach an audience outside the euro area. A budget of €80 million was set aside for the development and implementation of the campaign. On top of this, the NCBs undertook complementary measures at the national and, in some cases, also at the international level.

The campaign strategy was based on five leading principles: co-operation with multipliers, feedback on information needs through research, interaction between the European and national levels, a multi-media approach, and a multi-disciplinary approach (e.g. public relations, direct marketing, advertising and marketing communication).

The mass media campaign was able to benefit from a number of media partnerships and preferential positions in blocks (for television and radio) and magazines. The goal of the mass media campaign was thus attained, namely to reach 80% of the population with each TV advertisement 2.5 times. In some countries, 90% of the population was reached.

Overall, the information campaign fulfilled its objectives extremely well. A quantitative research programme carried out in several waves – the last one in February 2002 – proved that knowledge of the visual appearance of the euro banknotes and their security features gradually rose during the campaign and had reached a satisfactory level in all countries by the time the euro banknotes and coins were brought into circulation.

urban planning and architectural design competition for the ECB's future premises (see Chapter XIII).

- The Governing Council's view on the Stability and Growth Pact (see Chapter I).

2 The exchange of information and views with the European Parliament

2.1 Overview of relations between the ECB and the European Parliament

In line with the provisions of Article 113 (3) of the Treaty, the ECB continued its regular exchanges of views with the European Parliament throughout 2002. As in past years, the main forum for these exchanges of views were the quarterly testimonies by the President of the ECB before the Committee on Economic and Monetary Affairs. During these testimonies, the President reported on the decisions taken by the Governing Council on monetary policy and in the other areas of the ECB's competence, and subsequently answered questions put by the Committee members. The President also presented the ECB's Annual Report 2001 at the plenary session of the European Parliament, which held a general debate and passed a resolution.

In addition to the quarterly appearances by the ECB's President, the Committee on Economic and Monetary Affairs also invited other members of the Executive Board to exchange views on a number of issues. As in previous years, the Vice-President presented the ECB's Annual Report 2001 to the Committee. Mr. Issing was invited to exchange views on the economic environment and the draft Broad Economic Policy Guidelines, while Mr. Padoa-Schioppa participated in a hearing on financial supervision in the EU, where he explained the ECB's views on EU structures for financial regulation, supervision and stability. Moreover, Mr. Padoa-Schioppa was invited by the Committee to a hearing on the developments of and new prospects for European economic union.

In addition to these public meetings, a delegation of members of the Committee on Economic and Monetary Affairs visited the ECB for informal discussions on a variety of issues with the members of the Executive Board.

Lastly, the European Parliament decided to amend its Rules of Procedures in order to establish an internal procedure whereby all its Members may submit, via the Chairman of the Committee on Economic and Monetary Affairs, questions in writing to the ECB. These, together with the ECB's replies, are subsequently published in the Official Journal of the European Communities[1]. Even though neither the Treaty nor the Statute of the ESCB contain any provisions or obligations in this respect, the ECB has agreed to answer such questions, insofar as they relate to the fulfilment of the ECB's mandate, on a voluntary basis, as it has already done in the past. At the same time, the ECB emphasised that this should in no way lessen the importance of the regular testimonies, where the principal questions regarding the ECB's policy decisions should continue to be discussed. Written answers to questions asked by Members of the European Parliament during the President's testimonies are published on the ECB's website.

2.2 Views of the ECB on selected topics raised at meetings with the European Parliament

The various exchanges of views between the European Parliament and the ECB covered a wide range of issues. While the assessment of economic and monetary developments and the conduct of the ECB's monetary policy

1 *The Official Journal of the European Communities has become, as of the entry into force of the Treaty of Nice, the Official Journal of the European Union.*

were in the forefront of these exchanges, Members of Parliament also asked questions pertaining to the other tasks which the Treaty has conferred upon the Eurosystem.

The European Parliament addressed a number of these issues in its resolution on the ECB's Annual Report 2001, which was adopted at the plenary session on 3 July. The following sub-sections deal with some of the principal issues raised in this resolution and recall the views presented by the ECB.

The euro cash changeover

1 January 2002 saw the single currency become a tangible reality. On that day the euro banknotes and coins became legal tender throughout the euro area and, thereby, a visible symbol of European identity. The ECB reported extensively to the European Parliament on the preparation and implementation of this historic event, and in its resolution on the ECB's Annual Report 2001 the European Parliament congratulated the Eurosystem for its "brilliant implementation of the euro cash changeover".

However, while underlining that the euro could be expected to have a positive impact on consumer price developments by stimulating competition, the European Parliament criticised abusive rounding practices that had been observed in some instances (in particular in the services sector).

The ECB and the NCBs of the Eurosystem have, since 2001, closely monitored and analysed possible effects on price developments stemming from the euro cash changeover. During his various appearances before the European Parliament, the President explained that, although the perception of consumers may have been different, the effects on inflation of the euro cash changeover were in fact very limited (see Chapter I).

Accountability and transparency of the ECB

Another issue which was raised during these exchanges of views was the accountability of the ECB. In its resolution on the ECB's Annual Report 2001, the European Parliament suggested that minutes of the Governing Council's meetings should be published in the form of a summary of the arguments discussed during the meetings shortly after the subsequent Governing Council meeting. Moreover, it proposed that such summary minutes should indicate, in an anonymous way, the balance of votes and any dissenting opinion of Governing Council members.

In response to these suggestions, the President explained that during the extensive press conferences held immediately after the first meeting of the Governing Council every month, during which monetary policy decisions are normally taken, as well as in its Monthly Bulletin, the ECB provides an in-depth explanation of the reasons that underpin the Governing Council's decisions. Accordingly, the reasoning of the Governing Council is made available to the public at a much earlier stage than would be the case for formally adopted minutes.

Furthermore, the President explained that the ECB goes beyond the already stringent reporting requirements laid down in the Treaty, and that through the comprehensive communication tools (see Section 1 of this chapter) already in use, the ECB has achieved very high standards in terms of both transparency and accountability. Moreover, the choice not to publish detailed proceedings is consistent with the Treaty, which stipulates that the proceedings of the meetings of the Governing Council should remain confidential, while the Governing Council may decide to make the outcome of its deliberations public.

With regard to the suggestions about the disclosure of information on the voting behaviour and individual views of the members of the Governing Council, it should be borne in mind that the ECB operates a single monetary policy at the euro area level. Against this background, a procedure whereby votes and individual opinions were published (even anonymously) could lead to undue pressure to deviate from a euro area perspective. Moreover, the Governing Council acts as a collegiate body and is collectively responsible for its decisions. Therefore, the ECB sees no merit in adopting such suggestions and will adhere to its policy of presenting the relevant arguments in a clear, prompt and consistent way in order to provide the necessary information for understanding the conduct of monetary policy.

Finally, it may be added that the ECB's reporting requirements, as laid down in the Treaty, are broadly similar to those of other major central banks. The ECB also compares favourably in the international context as regards the practices and procedures established over the years for the fulfilment of accountability obligations, notably its active relations with the European Parliament.[2]

Role of Eurosystem staff macroeconomic projections and suggestions to publish a euro area country-by-country review

The European Parliament's resolution on the ECB's Annual Report 2001 also addressed the issue of Eurosystem staff macroeconomic projections. More specifically, the European Parliament suggested that these projections should give precise figures, rather than ranges, and be explicitly endorsed by the Governing Council, whereby members who disagree should have the possibility of noting their dissent anonymously. Moreover, it suggested that the ECB should publish, on an annual basis, a country-by-country review of economic trends in the individual euro area Member States.

The President pointed out that Eurosystem staff macroeconomic projections are an important technical contribution to the deliberations of the Governing Council, as they help to summarise and assess the implications of a large body of information for future inflation in a consistent way. This notwithstanding, they by no means have an all-encompassing role in the process of monetary policy formulation, but constitute one input, among others, with which to assess the risks to price stability under the second pillar. The projections are the result of Eurosystem staff expertise and should, in the interest of transparency, be kept separate from the analysis and final judgement of the Governing Council regarding the overall assessment of risks to price stability. The ranges used in the projections reflect the complexity and uncertainties of the projection exercise and, more fundamentally, the economy itself.

Considering suggestions that the ECB should publish annual economic country-by-country reviews, the allocation of tasks within the Eurosystem has so far revealed no need to adopt such a practice. Macroeconomic and structural developments in individual member countries are, of course, followed in the Eurosystem in order to enhance the overall understanding of the economic conditions prevailing in the euro area. In this respect, the NCBs of the Eurosystem regularly monitor and analyse these developments in their respective countries. At the same time, given its mandate, it is necessary for the ECB to focus on euro area developments in its monetary policy analysis.

Fiscal policies and the Stability and Growth Pact

Fiscal policies and the development of budgetary positions in Member States were other issues that were frequently addressed during the exchanges of views between the European Parliament and the ECB. In this context, Committee members also expressed their views on the Stability and Growth Pact and on suggestions to modify its provisions.

2 *For further details on these issues, see the articles in the November 2002 issue of the ECB's Monthly Bulletin entitled "The accountability of the ECB" and "Transparency in the monetary policy of the ECB".*

The President took the occasion of his testimonies to underline the Governing Council's view that the current fiscal framework, as laid down by the Treaty and further developed by the Stability and Growth Pact, strikes the right balance between discipline and flexibility. By prescribing a medium-term objective of budgetary positions close to balance or in surplus, the Stability and Growth Pact guarantees that fiscal policies will preserve the sustainability of public finances while providing sufficient flexibility for automatic fiscal stabilisers to operate. Moreover, a credible and enforceable institutional framework for the conduct of fiscal policies in euro area countries is a necessary complement to a monetary policy geared towards price stability (see Chapters I and V).

Sound fiscal policies that foster macroeconomic stability are conducive to growth in employment and real GDP. Full compliance with the provisions of the Treaty and the Stability and Growth Pact is, therefore, in the interest of each individual Member State. Member States with remaining imbalances should thus commit themselves to a clear consolidation strategy to attain the objectives agreed under the Stability and Growth Pact within the shortest possible time frame. In its resolution on the ECB's Annual Report 2001, the European Parliament also underlined that the Stability and Growth Pact is an essential element of the credibility of the euro area and that the attainment of a balanced fiscal position is a prerequisite for letting automatic stabilisers work fully.

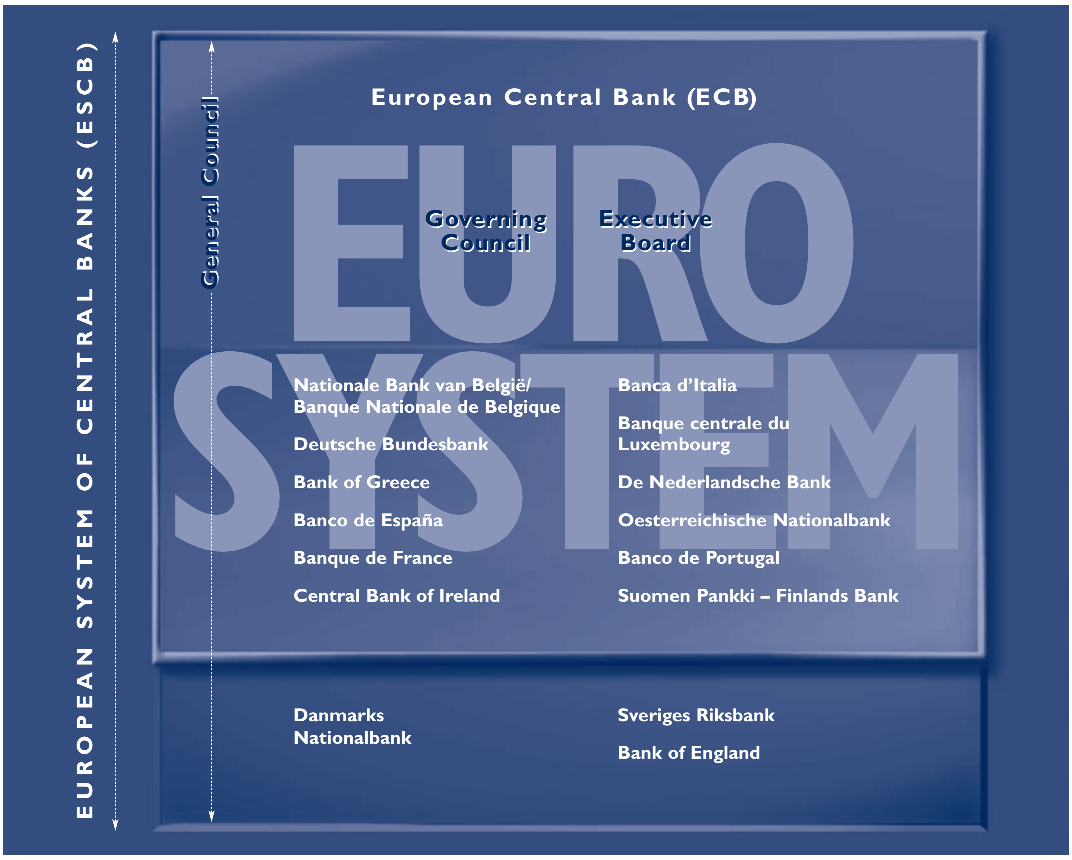
The ECB photographic exhibition "The Making of the €uro" at the headquarters of the National Bank of Poland in Warsaw from 2 December 2002 to 15 January 2003

Eugenio Domingo Solans, Member of the Executive Board of the ECB, and Leszek Balcerowicz, President of the National Bank of Poland, open the exhibition

Chapter XIII

The institutional framework of the Eurosystem and the European System of Central Banks

1 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 Governing Council has adopted the term "Eurosystem" which 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 was established as the core of the Eurosystem and the ESCB and ensures that their respective tasks 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 above tasks 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 their participation in the various ESCB Committees (see Section 5 of this chapter). They 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. 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 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, its main responsibilities 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.

The Governing Council meets, as a rule, twice a month at the ECB's premises in Frankfurt am Main, Germany. It conducts an in-depth assessment of monetary and economic developments and takes related decisions specifically at its first meeting in the month, while the second meeting usually focuses on issues related to other tasks and responsibilities of the ECB and the Eurosystem. In 2002, one meeting was held by means of a teleconference and two meetings were held outside Frankfurt: one was hosted by De Nederlandsche Bank in Maastricht and one by the Banque centrale du Luxembourg in Luxembourg.

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 by the principle of "one member, one vote" applied within the Council.

In December 2002 the Governing Council decided unanimously on the contents of its proposal on the future adjustment of its voting modalities. Such an adjustment will become necessary in order to maintain the Governing Council's capacity for efficient and timely decision-making in an enlarged euro area. The proposal was made in accordance with the ECB "enabling clause" contained in the Treaty of Nice (see Chapter VI). Following the entry into force of the Treaty of Nice on 1 February 2003, the ECB formally adopted a Recommendation on the adjustment of the voting modalities in the Governing Council.

According to the Recommendation, all members of the Governing Council would continue to attend meetings and participate in the deliberations in a personal and independent capacity. However, the number of NCB governors holding a voting right would not exceed 15. The 15 voting rights would rotate among the governors according to pre-established rules. The six members of the Executive Board would maintain a permanent voting right. In order to ensure that at any particular time the governors having a voting right are from member countries

1 *The various 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, these rules have been reproduced in the ECB publication "Compendium: Collection of legal instruments, June 1998 – December 2001", (March 2002), which is also available on the ECB's website.*

which, taken together, are representative of the euro area economy as a whole, they would have the voting right with different frequencies. However, this differentiation between governors would apply exclusively to the prior determination of the frequency with which each governor has a voting right. For all governors having a voting right at any point in time, the "one member, one vote" principle would apply.

NCB governors would be allocated to different groups, according to a ranking of the relative size of the economies of their respective member countries. The rotation system would start operating with two groups once the number of euro area countries exceeds 15. When there are 22 euro area countries, a rotation system based on three groups would start operating. The rotation would be robust and automatic in that the size of the groups and the NCB governors' voting frequencies would be adjusted over time so as to accommodate any sequencing of euro area enlargement up to 27 member countries, i.e. the current EU Member States and the 12 accession countries listed in the Declaration on the enlargement of the European Union annexed to the Treaty of Nice. Precise implementing provisions would be determined by the Governing Council, deciding by a two-thirds majority of all its members.

The Governing Council

Back row (left to right): Vítor Constâncio, Jean-Claude Trichet, Nicholas Garganas, Guy Quaden, Matti Vanhala, Klaus Liebscher, Ernst Welteke, Yves Mersch, John Hurley, Jaime Caruana, Antonio Fazio, Nout Wellink
Front row (left to right): Tommaso Padoa-Schioppa, Otmar Issing, Lucas D. Papademos, Willem F. Duisenberg, Sirkka Hämäläinen, Eugenio Domingo Solans

Willem F. Duisenberg	*President of the ECB*
Christian Noyer (until 31 May 2002)	*Vice-President of the ECB*
Lucas D. Papademos (as from 1 June 2002)	*Vice-President of the ECB*
Jaime Caruana	*Governor of the Banco de España*
Vítor Constâncio	*Governor of the Banco de Portugal*
Eugenio Domingo Solans	*Member of the Executive Board of the ECB*
Antonio Fazio	*Governor of the Banca d'Italia*
Nicholas Garganas (as from 1 June 2002)	*Governor of the Bank of Greece*
Sirkka Hämäläinen	*Member of the Executive Board of the ECB*
John Hurley (as from 11 March 2002)	*Governor of the Central Bank of Ireland*
Otmar Issing	*Member of the Executive Board of the ECB*
Klaus Liebscher	*Governor of the Oesterreichische Nationalbank*
Yves Mersch	*Governor of the Banque centrale du Luxembourg*
Maurice O'Connell (until 10 March 2002)	*Governor of the Central Bank of Ireland*
Tommaso Padoa-Schioppa	*Member of the Executive Board of the ECB*
Lucas D. Papademos (until 31 May 2002)	*Governor of the Bank of Greece*
Guy Quaden	*Governor of the Nationale Bank van België/ Banque Nationale de Belgique*
Jean-Claude Trichet	*Governor of the Banque de France*
Matti Vanhala	*Governor of Suomen Pankki – Finlands Bank*
Nout Wellink	*President of De Nederlandsche Bank*
Ernst Welteke	*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, which as a rule meets once a week, 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.

Back row (left to right): Eugenio Domingo Solans, Otmar Issing, Tommaso Padoa-Schioppa
Front row (left to right): Lucas D. Papademos, Willem F. Duisenberg, Sirkka Hämäläinen

Willem F. Duisenberg	*President of the ECB*
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Otmar Issing	*Member of the Executive Board of the ECB*
Tommaso Padoa-Schioppa	*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 EU NCBs. It carries out those tasks taken over from the European Monetary Institute which still have to be performed by the ECB on account of the fact that not all the Member States have adopted the euro. In 2002 the General Council met five times. One of these meetings was held by means of a teleconference. The General Council has decided that, as soon as the Accession Treaty has been signed with the relevant EU candidate countries, their respective central bank governors will be invited to attend the meetings of the General Council in an observer capacity.

The General Council

Back row (left to right): Nicholas Garganas, Guy Quaden, Matti Vanhala, Klaus Liebscher, Ernst Welteke, Yves Mersch, Edward A. J. George, John Hurley, Jaime Caruana, Nout Wellink, Antonio Fazio
Front row (left to right): Vítor Constâncio, Jean-Claude Trichet, Lucas D. Papademos, Willem F. Duisenberg, Bodil Nyboe Andersen, Urban Bäckström

Willem F. Duisenberg	*President of the ECB*
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Ernst Welteke	*President of the Deutsche Bundesbank*

3 The organisation of the ECB

3.1 Corporate governance

In addition to the decision-making bodies described in Section 2, 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 auditor, which audits the annual accounts of the ECB (Article 27.1 of the Statute of the ESCB), and the European Court of Auditors, which examines the operational efficiency of the management of the ECB (Article 27.2).

The Directorate Internal Audit performs audit missions under the responsibility of the Executive Board. Its mandate is defined in the ECB Audit Charter.[2] Furthermore, the Internal Auditors Committee is responsible for audit missions under a mandate from the Governing Council to ensure audit coverage for joint projects and joint operational systems at the ESCB level.

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 performing this task, organisational units implement a set of operational control procedures within their area of responsibility. For example, a system of "Chinese walls" is in place in the Directorate General Operations. In addition to these controls, the Directorate Planning and Controlling and the Risk Management Division advise and make proposals to the Executive Board on specific control issues affecting the organisation as a whole.

In May 2002, the members of the Governing Council agreed upon a Code of Conduct for themselves, which reflects their responsibility to safeguard the integrity and reputation of the Eurosystem and to maintain the effectiveness of its operations.[3] The Governing Council has appointed an adviser, providing guidance on some aspects of professional conduct. This code complements the Code of Conduct of the European Central Bank which 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.[4]

The ECB has detailed rules preventing the abuse of sensitive financial market information ("insider trading rules"). 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 when 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] An Ethics Adviser appointed by the Executive Board ensures a consistent interpretation of these 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 forward by the Executive Board. The Budget Committee, which was established under Article 15 of the Rules of Procedure of the ECB, assists the Governing Council in matters related to the ECB's budget. It is composed of representatives of the Eurosystem central banks. The chairperson of the Committee is Liam Barron.

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 original layers of control

2 *See the ECB Audit Charter on the ECB's website.*
3 *See the Code of Conduct for the members of the Governing Council, OJ C 123, 24.5.2002, p. 9 and the ECB's website.*
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.*

within the ECB have been enhanced with an independent Anti-Fraud Committee set up on the basis of the ECB Decision on fraud prevention.[6] The Anti-Fraud Committee, which held two meetings in 2002, is kept regularly informed by the Directorate Internal Audit of all issues related to the performance of its tasks. The Governing Council has decided to extend the initial three-year terms of office of the current Committee members.

3.2 Human resources management

Staffing

At the end of 2002, the number of staff employed by the ECB was 1,109 (1,105.5 full-time equivalent positions) compared with 1,043 in 2001, with a total of 1,172.5 budgeted staff positions (full-time equivalent). The staff budget for 2003 has been set at a maximum of 1,263.5 full-time equivalent positions, representing a 7.8% increase over 2002.

In 2002 the ECB provided traineeships to 135 students and graduates, mainly with an economics background, for an average duration of four months. In addition, 44 staff from EU and accession country central banks came to the ECB for periods of approximately four months on average.

Within the *Research Visitors Programme*, which focuses on specific high-level research projects in the field of monetary policy, 20 research visitors were welcomed in 2002. The *Graduate Research Programme*, which is aimed at highly talented research students at an advanced stage of their doctoral studies, attracted 12 participants for an average duration of three months.

The *External Work Experience Scheme* was introduced in January 2003. This scheme will allow ECB staff to gain work experience at central banks inside and outside the ESCB or at European or international organisations, thereby fostering ties between the ECB and its counterparts.

Human resources policies

The method by which the salaries of ECB staff are annually adjusted – *the General Salary Adjustment* – was reviewed and a revised methodology was put in place with effect from 1 July 2002. The main element of the new methodology, which will apply for three years, remained the adjustment of salaries in line with a weighted average of pay settlements at a group of comparator organisations, now including, in addition to the NCBs and the Bank for International Settlements, certain Europe-based international and supranational institutions.

The ECB has appointed an independent *Social Counsellor* to provide confidential counselling to staff members on work-related matters and to mediate in interpersonal conflicts at the workplace. The ECB also appointed an independent *Equal Opportunities Adviser* to provide advice on issues related to equal opportunities in the broadest sense, i.e. with regard to gender, nationality, age, etc.

Childcare facilities and the European School

The ECB childcare facilities have been enlarged, with the addition of a second permanent facility, and now offer a total number of 123 places for children aged mainly between three months and three years. However, in view of the continuous high demand for places, the preparations for the acquisition of a third facility have already started.

The European School Frankfurt opened in September 2002 for its first school year, with five grades at primary level and two grades at pre-school level. After initially being accommodated in provisional facilities, the pupils moved to the new school building at the beginning of 2003. The school has four

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.

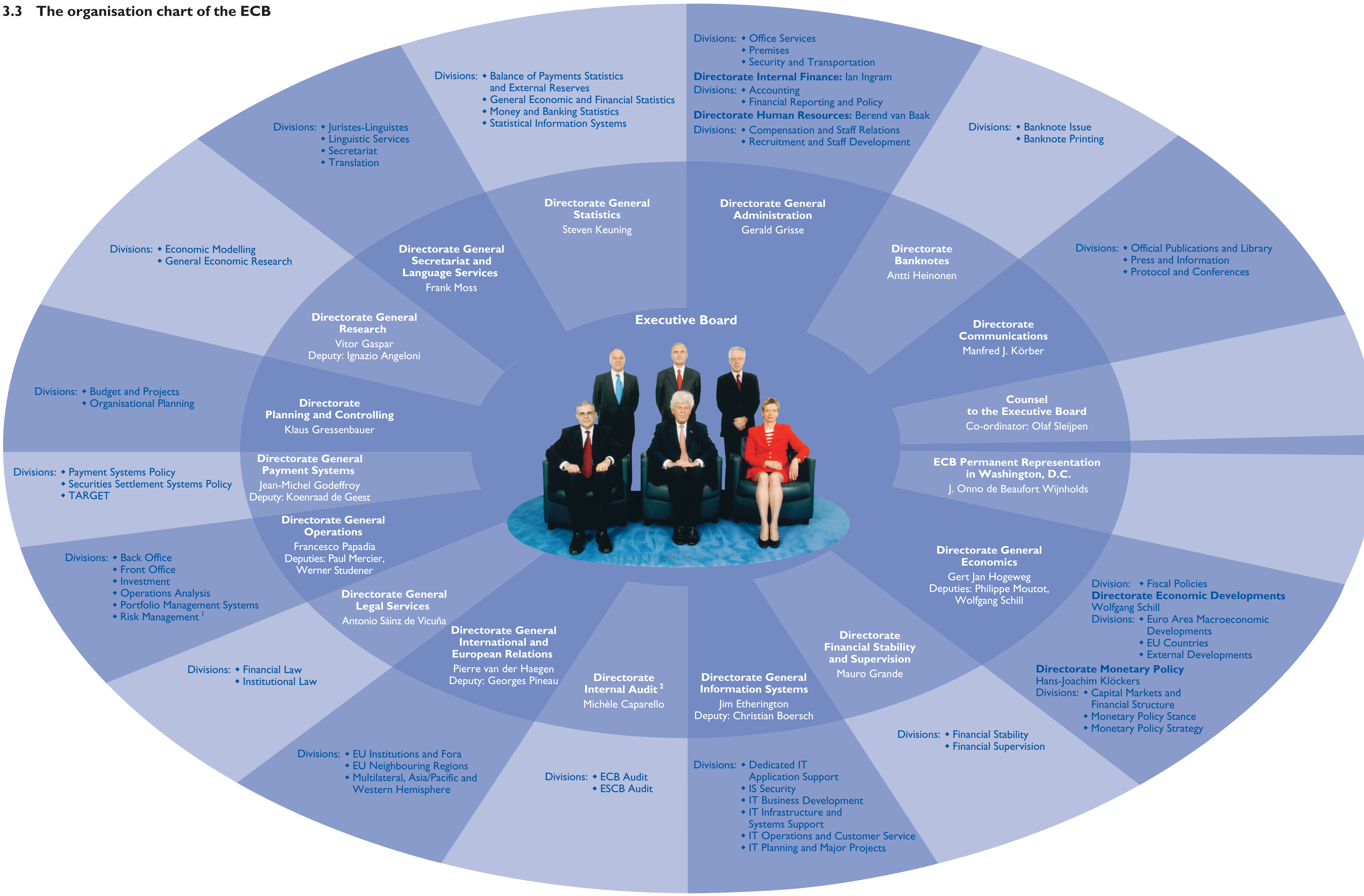
language sections: English, French, German and Italian.

Staff relations

In accordance with its Conditions of Employment, the ECB consults its elected Staff Committee on the development of its human resources policies. It also engages the internal Union of the Staff of the ECB (USE) in discussions on changes in the employment conditions.

The request of USE and an external trade union (International and European Public Services Organisation, IPSO) for recognition as partners in the negotiation of collective labour agreements was found inadmissible by the Court of First Instance. The appeal initiated by IPSO before the European Court of Justice was subsequently withdrawn.

3.3 The organisation chart of the ECB



[1] Reports on specific issues directly to the Executive Board.

[2] Within the Directorate Internal Audit an Anti-Fraud Unit has been set up, which reports 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.

Executive Board

Front row: **President:** Willem F. Duisenberg (centre); **Vice-President:** Lucas Papademos (left); Sirkka Hämäläinen

Back row (left to right): Eugenio Domingo Solans; Otmar Issing; Tommaso Padoa-Schioppa

3.4 ECB premises

Being currently located in rented buildings, the ECB intends to have new premises built. For this purpose, it has acquired a site from the City of Frankfurt and has launched an international architectural competition for the development of the site.

4 ESCB Social Dialogue

Two meetings of the ESCB Social Dialogue were held in 2002. As in past years, issues related to banknotes, payment systems and prudential supervision were discussed. The views of the European trade union federations and the 31 employee representatives participating in the Dialogue were conveyed to the Governing and General Councils. A proposal from the three European trade union federations to include employee representatives from the accession country central banks with observer status was accepted and will take effect from the signing of the Accession Treaty.

5 ESCB Committees

The ESCB Committees have continued to play an important role in the performance of the tasks of the Eurosystem/ESCB. 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. Participation in the ESCB Committees is usually restricted to representatives of the Eurosystem central banks. However, the NCBs of the Member States which have not yet adopted the euro take part in the meetings of an ESCB Committee whenever it deals with matters that fall within the field of competence of the General Council. Where appropriate, other competent bodies may also be invited, such as national supervisory authorities in the case of the Banking Supervision Committee. 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) Ian Ingram	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 Caparello	Statistics Committee (STC) Steven Keuning

"Contemporary Art from Portugal" at the ECB on 4 December 2002

Vítor Constâncio, Governor of the Banco de Portugal, and Lucas Papademos, Vice-President of the ECB, open the exhibition

Chapter XIV

Annual Accounts of the ECB and Consolidated Balance Sheet of the Eurosystem 2002

Balance Sheet as at 31 December 2002

Assets	Note number	2002 €	2001 €
Gold and gold receivables	**1**	**8,058,187,254**	**7,766,265,040**
Claims on non-euro area residents denominated in foreign currency	**2**		
Receivables from the IMF		164,788,323	72,074,161
Balances with banks and security investments, external loans and other external assets		37,151,511,287	41,162,620,238
		37,316,299,610	**41,234,694,399**
Claims on euro area residents denominated in foreign currency	**2**	**3,047,976,497**	**3,636,568,460**
Claims on non-euro area residents denominated in euro	**3**		
Balances with banks, security investments and loans		**183,237,923**	**391,170,869**
Securities of euro area residents denominated in euro	**4**	**0**	**0**
Intra-Eurosystem claims	**5**		
Claims related to the allocation of euro banknotes within the Eurosystem		28,681,074,010	0
Other claims within the Eurosystem (net)		5,468,478,796	9,697,303,920
		34,149,552,806	**9,697,303,920**
Other assets	**6**		
Tangible and intangible fixed assets		112,624,758	100,585,654
Other financial assets		5,529,030,465	4,516,504,313
Accruals and prepaid expenses		1,260,718,561	620,508,777
Sundry		609,968,394	97,569,394
		7,512,342,178	**5,335,168,138**
Total assets		**90,267,596,268**	**68,061,170,826**

Liabilities	Note number	2002 €	2001 €
Banknotes in circulation	**7**	**28,681,074,010**	**0**
Liabilities to other euro area residents denominated in euro	**8**	**1,036,000,000**	**1,022,000,000**
Liabilities to non-euro area residents denominated in euro	**9**	**227,805,777**	**271,375,580**
Liabilities to euro area residents denominated in foreign currency	**10**	**0**	**17,192,783**
Liabilities to non-euro area residents denominated in foreign currency	**10**		
Deposits, balances and other liabilities		**5,192,380,656**	**5,840,349,099**
Intra-Eurosystem liabilities	**11**		
Liabilities equivalent to the transfer of foreign reserves		**40,497,150,000**	**40,497,150,000**
Other liabilities	**12**		
Accruals and income collected in advance		1,417,939,194	1,759,319,678
Sundry		75,191,137	94,122,190
		1,493,130,331	**1,853,441,868**
Provisions	**13**	**2,644,780,685**	**2,803,216,269**
Revaluation accounts	**14**	**4,404,834,096**	**9,429,002,830**
Capital and reserves	**15**		
Capital		4,097,229,250	4,097,229,250
Reserves		772,757,209	408,393,225
		4,869,986,459	**4,505,622,475**
Profit for the year		**1,220,454,254**	**1,821,819,922**
Total liabilities		**90,267,596,268**	**68,061,170,826**

Profit and Loss Account for the year ending 31 December 2002

	Note number	2002 €		2001 €
Interest income on foreign reserve assets		*990,618,897*		*1,707,431,459*
Interest income arising from the allocation of euro banknotes within the Eurosystem		*726,917,226*		*0*
Other interest income		*1,965,003,344*		*2,271,293,068*
Interest income			3,682,539,467	3,978,724,527
Remuneration of NCBs' claims in respect of foreign reserves transferred		*(1,140,963,789)*		*(1,509,312,118)*
Other interest expense		*(1,547,042,623)*		*(1,698,022,587)*
Interest expense			(2,688,006,412)	(3,207,334,705)
Net interest income	**19**		**994,533,055**	**771,389,822**
Realised gains/losses arising from financial operations	**20**	*735,425,388*		*1,351,881,733*
Write-downs on financial assets and positions	**21**	*(276,955,036)*		*(109,023,392)*
Transfer to/from provisions for foreign exchange rate and price risks		*154,000,000*		*109,023,392*
Net result of financial operations, write-downs and risk provisions			**612,470,352**	**1,351,881,733**
Net (expense)/income from fees and commissions	**22**		**(227,158)**	**298,120**
Other income	**23**		**3,744,153**	**1,393,851**
Total net income			**1,610,520,402**	**2,124,963,526**
Staff costs	**24 & 25**		(120,003,344)	(97,288,818)
Administrative expenses	**26**		(133,966,576)	(185,712,394)
Depreciation of tangible and intangible fixed assets			(17,738,206)	(20,142,392)
Banknote production services	**27**		(118,358,022)	0
Profit for the year			**1,220,454,254**	**1,821,819,922**

Frankfurt am Main, 11 March 2003

EUROPEAN CENTRAL BANK

Willem F. Duisenberg
President

Accounting policies[1]

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 of 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 and 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 31 December 2002.

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 31 December 2002, mid-market prices on 30 December 2002 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

1 *The detailed accounting policies of the ECB are laid down in a Decision of the Governing Council of the ECB of 5 December 2002 (ECB/2002/11), OJ L 58, 3.3.2003, pp. 38-59. The Decision entered into force on 1 January 2003 but also applies to the drawing-up of the annual balance sheet and profit and loss account of the ECB for the year ending 31 December 2002. The revisions to the accounting policies of previous years are not significant.*

reduced to the end-of-year exchange rate and/or market price.

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.

Reverse transactions

Reverse transactions conducted under 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 transactions conducted under 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.

Reverse transactions (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 2002, 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. Interest rate futures are recorded on the trade date in off-balance-sheet accounts. Daily changes in the variation margin are recorded on balance sheet. Unrealised losses taken to the profit and loss account at the year-end are not reversed in subsequent years against unrealised profits, unless the instrument is closed out or terminated.

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 primarily processed via TARGET[2] 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

2 *TARGET is the Trans-European Automated Real-time Gross settlement Express Transfer system (see also Chapter VIII).*

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.

Intra-ESCB balances of the euro area 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 arising from the allocation of euro banknotes within the Eurosystem are included as a single net asset under "Claims related to the allocation of euro banknotes within the Eurosystem" (see "Banknotes in circulation" in the notes on accounting policies).

Intra-ESCB balances of the non-euro area 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, with the exception of land, are valued at cost less depreciation. Land is valued at cost. 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.

In the case of building and capitalised refurbishment expenditure relating to the ECB's existing premises, the depreciation period has been reduced in order to ensure that these assets are completely written off by the end of 2008, at which date the ECB is expected to have moved to its final location. This change will affect the annual accounts mainly from 2003 onwards.

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.

Banknotes in circulation

The ECB and the 12 euro area NCBs, which together comprise the Eurosystem, have issued euro banknotes as from 1 January 2002.[3] The total value of euro banknotes in circulation is allocated on the last working day of each month in accordance with the banknote allocation key.[4]

The ECB has been allocated a share of 8% of the total value of euro banknotes in circulation, which is disclosed under the balance sheet liability item "Banknotes in circulation". The ECB's share of the total euro banknote issue is backed by claims on

3 *ECB Decision of 6 December 2001 on the issue of euro banknotes (ECB/2001/15), OJ L 337, 20.12.2001, pp. 52-54.*
4 *"Banknote allocation key" means the percentages that result from taking into account the ECB's share in the total euro banknote issue and applying the subscribed capital key to the NCBs' share in that total.*

the NCBs. These claims, which bear interest[5], are disclosed under the sub-item "Intra-Eurosystem claims: claims related to the allocation of euro banknotes within the Eurosystem" (see "Intra-ESCB balances" in the notes on accounting policies). Interest income on these claims is included within the item "Net interest income". The Governing Council has decided that this income shall be distributed separately to the NCBs in the form of an interim distribution.[6] It will be distributed in full unless the ECB's net profit for the year is less than its income earned on euro banknotes in circulation, and subject to any decision by the Governing Council to reduce this income in respect of costs incurred by the ECB in connection with the issue and handling of euro banknotes. For 2002, one interim distribution was made on the second working day of 2003. From 2003 onwards, interim distributions will be made after the end of each quarter.

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 would 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 for the financial year ending 31 December 2002.

5 *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/2001/16), OJ L 337, 20.12.2001, pp. 55-61.*

6 *ECB Decision of 21 November 2002 on the distribution of the income of the European Central Bank on euro banknotes in circulation to the national central banks of the participating Member States (ECB/2002/9), OJ L 323, 28.11.2002, pp. 49-50.*

Notes on the Balance Sheet

1 Gold and gold receivables

The ECB holds 24.7 million ounces of fine gold (2001: 24.7 million ounces). No transactions in gold took place in 2002. The balance sheet movement is due to the quarterly revaluation process (see "Gold and foreign currency assets and liabilities" in the notes on accounting policies).

2 Claims on non-euro area and euro area residents denominated in foreign currency

Receivables from the IMF

This asset represents the ECB's holdings of Special Drawing Rights (SDRs) as at 31 December 2002. It arises as the result of 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 holding 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 (euro, Japanese yen, pound sterling and US dollar). For accounting purposes, SDRs are treated as a foreign currency asset (see "Gold and foreign currency assets and liabilities" in the notes on accounting policies).

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 dollar and Japanese yen.

3 Claims on non-euro area residents denominated in euro

As at 31 December 2002, this claim consisted of bank deposits with non-euro area residents.

4 Securities of euro area residents denominated in euro

All securities of euro area residents denominated in euro held by the ECB are a direct counterpart to the capital and reserves of the ECB. The ECB has decided to reclassify these holdings as a dedicated portfolio, which is now included under the heading "Other financial assets". The comparable balance as at 31 December 2001 has been adjusted accordingly.

5 Intra-Eurosystem claims

Claims related to the allocation of euro banknotes within the Eurosystem

This item consists of the claims of the ECB vis-à-vis the euro area NCBs relating to the allocation of euro banknotes within the Eurosystem (see "Banknotes in circulation" in the notes on accounting policies).

Other claims within the Eurosystem (net)

This item consists of the TARGET balances of the euro area NCBs vis-à-vis the ECB and includes interim distributions of the ECB's income derived from banknotes (see "Banknotes in circulation" and "Intra-ESCB balances" in the notes on accounting policies).

	2002 €	2001 €
Due from euro area NCBs in respect of TARGET	56,546,091,330	66,908,187,928
Due to euro area NCBs in respect of TARGET	(50,471,612,534)	(57,210,884,008)
Due to euro area NCBs in respect of the interim distribution of the ECB's income derived from banknotes	(606,000,000)	0
Net position	5,468,478,796	9,697,303,920

6 Other assets

Tangible and intangible fixed assets

These assets comprised the following main items on 31 December 2002:

	Net book value as at 31 Dec. 2002 €	Net book value as at 31 Dec. 2001 €
Land and buildings	51,496,140	39,288,068
Computers	33,522,388	28,703,744
Equipment, furniture, plant in building and motor vehicles	2,575,083	4,492,005
Assets under construction	9,092,185	8,077,125
Other fixed assets	15,938,962	20,024,712
Total	112,624,758	100,585,654

The principal increase, under the heading "Land and buildings", relates to capitalised costs of the ECB's installations at both its sites, the Eurotower and Eurotheum.

Other financial assets

The main components of this item are as follows:

(a) Securities of euro area residents denominated in euro, valued at €5.4 billion (2001: €4.4 billion – see note 4).

(b) The investment portfolios relating to the ECB pension fund, which are valued at €61.9 million (2001: €53.9 million). The assets held represent the investments of accumulated pension contributions by the ECB and the staff of the ECB as at 31 December 2002, 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.

(c) The ECB holds 3,000 shares in the Bank for International Settlements which are included at the acquisition cost of €38.5 million.

Accruals and prepaid expenses

This position includes accrued interest of €727 million on the ECB's claims related to the allocation of euro banknotes within the Eurosystem (see "Banknotes in circulation" in the notes on accounting policies). The remainder of this balance consists principally of accrued interest on securities and other financial assets.

Sundry

The increase in this position in 2002 is primarily due to the accrued interim distribution of the ECB's income derived from banknotes (see "Banknotes in circulation" in the notes on accounting policies, and note 5 above).

7 Banknotes in circulation

This item consists of the ECB's share of the total euro banknotes in circulation (see "Banknotes in circulation" in the notes on accounting policies).

8 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.

9 Liabilities to non-euro area residents denominated in euro

These liabilities principally represent balances held at the ECB by non-euro area NCBs arising from transactions processed via the TARGET system (see "Intra-ESCB balances" in the notes on accounting policies).

10 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.

11 Intra-Eurosystem liabilities

These represent the liabilities to euro area 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 latest available marginal rate for the Eurosystem's main refinancing operations, adjusted to reflect a zero return on the gold component (see the "Notes on the Profit and Loss Account", note 19).

	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

12 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 11). The ECB's liabilities in respect of the pension fund of €61.9 million (2001: €53.9 million) and other accruals are also shown under this item.

13 Provisions

Taking into account the ECB's large exposure to exchange rate and interest rate risk, and the size of its revaluation reserves, a general provision against these risks was made. The size and continuing requirement for this provision is reviewed annually, based on the ECB's assessment of its future exposure to exchange rate and interest rate risk.

This position also includes administrative provisions relating to expenditure on goods and services, together with an appropriate provision against the contractual obligation of the ECB to restore its current premises to their original condition when they are vacated and the ECB moves to its final site.

14 Revaluation accounts

These accounts represent revaluation reserves arising from unrealised gains on assets and liabilities. The reduction in these balances is primarily due to the depreciation of the US dollar vis-à-vis the euro (see "Gold and foreign currency assets and liabilities" in the notes on accounting policies).

	2002 €	2001 €
Gold	1,983,835,491	1,691,913,278
Foreign currency	1,682,723,875	7,428,130,700
Securities	738,274,730	308,958,852
Total	4,404,834,096	9,429,002,830

15 Capital and reserves

Capital

The fully paid-up subscriptions of the euro area 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-euro area 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-euro area NCBs. These non-euro area 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, including income arising from the allocation of euro banknotes within the Eurosystem, 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 21 March 2002, an amount of €364 million of the net profit for the year ending 31 December 2001 was transferred to the general reserve fund.

16 Automatic security lending programme

As part of the management of the ECB's own funds, the ECB is party to an automatic security lending programme agreement whereby an appointed security lending agent enters into security lending transactions on behalf of the ECB with a number of counterparties, designated by the ECB as eligible counterparties. Under this agreement, reverse transactions conducted under repurchase and reverse repurchase agreements, each with a value of €1.4 billion (2001: €1.6 billion), were outstanding as at 31 December 2002 (see "Reverse transactions" in the notes on accounting policies).

17 Interest rate futures

In 2002 foreign currency interest rate futures were used within the management of the ECB's foreign reserves. As at 31 December 2002, the following transactions were outstanding, stated at nominal value:

Foreign currency interest rate futures	Contract value €
Purchases	1,130,775,475
Sales	682,464,004

18 Capital commitments

On 5 March 2002, the ECB and the City of Frankfurt am Main signed a purchase agreement for the site of the ECB's final premises. Based on a predefined area of construction floor space, the minimum purchase price has been set at €61.4 million, payable in instalments by 31 December 2004 at the latest, when legal title to the site will pass to the ECB.

Notes on the Profit and Loss Account

19 Net interest income

Interest income on foreign reserve assets

This item includes interest income, net of interest expense, in respect of the assets and liabilities denominated in foreign currency, as follows:

	2002 €	2001 €
Gross interest income on foreign reserve assets	1,060,990,318	1,851,694,324
Interest expense on foreign reserve liabilities	(70,371,421)	(144,262,865)
Interest income on foreign reserve assets (net)	990,618,897	1,707,431,459

Interest income arising from the allocation of euro banknotes within the Eurosystem

This item consists of the interest income of the ECB relating to its 8% share in the total euro banknote issue (see "Banknotes in circulation" in the notes on accounting policies). Interest on the claims of the ECB in respect of its share of banknotes is earned at the latest available marginal rate for the Eurosystem's main refinancing operations.

Remuneration of NCBs' claims in respect of foreign reserves transferred

Remuneration paid to euro area 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 under this item.

Other interest income and *Other interest expense*

These positions include interest income and expenses on balances arising from TARGET and in respect of other assets and liabilities denominated in euro.

Excluding "Interest income arising from the allocation of euro banknotes within the Eurosystem", net interest income has decreased compared with 2001, primarily due to the decline in US dollar and euro interest rates during the year.

20 Realised gains/losses arising from financial operations

Net realised gains arose on sales of securities as a result of normal portfolio management transactions. In 2002, there were no major outflows of foreign currencies.

21 Write-downs on financial assets and positions

This expense is due almost entirely to the write-down of the acquisition cost of the ECB's Japanese yen and SDR holdings to their end-of-year exchange rate as at 31 December 2002, following the depreciation of these currencies against the euro over the year (see "Income recognition" in the notes on accounting policies).

22 Net (expense)/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.

	2002 €	2001 €
Income from fees and commissions	634,241	931,206
Expenses relating to fees and commissions	(861,399)	(633,086)
Net (expense)/income from fees and commissions	(227,158)	298,120

23 Other income

Other miscellaneous income during the year arose principally from the transfer of unused administrative provisions to the profit and loss account.

24 Staff costs

Salaries and allowances of €92.6 million (2001: €82.4 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 €2 million (2001: €1.9 million). No pensions were paid to former members of the Executive Board or their dependants during the year. Salaries and allowances, 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 2002, the ECB employed 1,105 staff, of whom 79 held managerial positions. The average number of staff employed by the ECB in 2002 was 1,080, compared with 997 in 2001. 113 additional staff were employed during the period, and 51 members of staff left the service of the ECB.

25 The ECB's retirement plan

In accordance with the rules of the ECB's plan, a triennial full actuarial valuation is required. The latest actuarial valuation was carried out as at 31 December 2001, 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 €27.4 million (2001: €14.9 million). This cost includes a provision for pensions to members of the Executive Board of €2.1 million (2001: €0.7 million) and any supplementary contributions. Based on the actuary's findings, the ECB made a supplementary contribution of €10.5 million in 2002. The required rate of future service contributions by the ECB is 16.5% of pensionable earnings of all staff.

26 Administrative expenses

These cover all other current expenses relating to rental and 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 net decrease in administrative expenditure compared with 2001 is primarily due to the fact that in that year additional consultancy fees were incurred in connection with the Euro 2002 Information Campaign.

27 Banknote production services

In 2001, costs relating to the production of a contingency stock of euro banknotes for the Eurosystem in connection with the changeover process were capitalised pending the allocation of that stock to the NCBs at cost as required. Following a decision of the Governing Council of the ECB after the changeover that the remaining stock of banknotes should constitute the nucleus of a strategic stock of the Eurosystem, these costs, together with similar costs incurred in 2002, have now been expensed. The remaining costs of establishing the Eurosystem strategic stock were borne directly by the NCBs.

The Governing Council decided that the ECB's interim distribution of income arising from the allocation of euro banknotes within the Eurosystem should be reduced by the amount of this expense.

President and Governing Council
of the European Central Bank

Frankfurt am Main

We have audited the accompanying annual accounts of the European Central Bank as of 31 December 2002. These annual accounts are the responsibility of the European Central Bank's Executive Board. Our responsibility is to express an opinion on these annual accounts based on our audit.

We conducted our audit in accordance with International Standards on Auditing. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the annual accounts are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the annual accounts. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall annual accounts presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the attached annual accounts, 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 as of 31 December 2002 and of the results of its operations for the year then ended.

Frankfurt am Main, 12 March 2003

PricewaterhouseCoopers

GmbH
Wirtschaftsprüfungsgesellschaft

[signed]	[signed]
(Wagener)	(Roennberg)
Wirtschaftsprüfer	Wirtschaftsprüfer

Note on profit distribution

This note is not part of the financial statements of the ECB for the year 2002. It is published in the Annual Report for information purposes only.

Profit distribution

Income related to the ECB's banknote issue

Following a decision of the Governing Council on 19 December 2002, an amount of €606 million, comprising part of the income related to the ECB's share of total euro banknotes in circulation, was distributed to the NCBs on 3 January 2003, in accordance with their respective shares in the ECB's capital.

Allocations to the general reserve fund

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 20 March 2003 to make no transfer to the general reserve fund and to distribute the remaining balance of €614 million to the euro area NCBs in proportion to their paid-up capital.

Non-euro area NCBs are not entitled to receive any share of the ECB's profit.

	2002 €	2001 €
Profit for the year	1,220,454,254	1,821,819,922
Income on the ECB's banknote issue distributed to NCBs	(606,000,000)	0
Profit for the year after distribution of income on the ECB's banknote issue	614,454,254	1,821,819,922
Allocations to general reserve fund	0	(364,363,984)
Distributable profits	614,454,254	1,457,455,938
Distribution to NCBs	(614,454,254)	(1,457,455,938)
Total	0	0

Consolidated Balance Sheet of the Eurosystem as at 31 December 2002

(EUR millions)

Assets	31 December 2002	31 December 2001
1 Gold and gold receivables	**130,739**	**126,801**
2 Claims on non-euro area residents denominated in foreign currency	**234,486**	**264,986**
2.1 Receivables from the IMF	31,305	32,008
2.2 Balances with banks and security investments, external loans and other external assets	203,181	232,978
3 Claims on euro area residents denominated in foreign currency	**19,823**	**24,804**
4 Claims on non-euro area residents denominated in euro	**4,190**	**5,707**
4.1 Balances with banks, security investments and loans	4,190	5,707
4.2 Claims arising from the credit facility under ERM II	0	0
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	**227,654**	**203,597**
5.1 Main refinancing operations	180,000	142,000
5.2 Longer-term refinancing operations	45,000	60,000
5.3 Fine-tuning reverse operations	0	0
5.4 Structural reverse operations	0	0
5.5 Marginal lending facility	2,621	1,573
5.6 Credits related to margin calls	33	24
6 Other claims on euro area credit institutions denominated in euro	**147**	**488**
7 Securities of euro area residents denominated in euro *	**27,828**	**24,417**
8 General government debt denominated in euro	**44,486**	**67,722**
9 Other assets	**105,808**	**95,567**
Total assets	**795,161**	**814,089**

Totals/sub-totals may not add up, due to rounding.

* *Part of the movement is due to a change of ECB accounting policies which is explained in detail in note 4 to the annual accounts of the ECB.*

Liabilities	31 December 2002	31 December 2001
1 Banknotes in circulation	**371,866**	**269,558**
2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	**133,565**	**148,072**
2.1 Current accounts (covering the minimum reserve system)	133,495	147,580
2.2 Deposit facility	70	488
2.3 Fixed-term deposits	0	0
2.4 Fine-tuning reverse operations	0	0
2.5 Deposits related to margin calls	0	4
3 Other liabilities to euro area credit institutions denominated in euro	**15**	**37,159**
4 Debt certificates issued	**2,029**	**2,939**
5 Liabilities to other euro area residents denominated in euro	**46,197**	**51,277**
5.1 General government	41,123	44,970
5.2 Other liabilities	5,074	6,307
6 Liabilities to non-euro area residents denominated in euro	**8,813**	**9,446**
7 Liabilities to euro area residents denominated in foreign currency	**1,125**	**2,524**
8 Liabilities to non-euro area residents denominated in foreign currency	**18,588**	**20,227**
8.1 Deposits, balances and other liabilities	18,588	20,227
8.2 Liabilities arising from the credit facility under ERM II	0	0
9 Counterpart of special drawing rights allocated by the IMF	**6,340**	**6,967**
10 Other liabilities	**59,702**	**77,181**
11 Revaluation accounts	**82,615**	**125,397**
12 Capital and reserves	**64,306**	**63,342**
Total liabilities	**795,161**	**814,089**

Legal instruments adopted by the European Central Bank in 2002

This list sets out those binding legal instruments that were adopted by the ECB in 2002 and published in the Official Journal of the European Communities [1]. 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 (www.ecb.int).

1 *In accordance with point 38 of Article 2 of the Treaty of Nice, which amends Article 254 of the Treaty establishing the European Community, the Official Journal of the European Communities has become, as of the entry into force of the Treaty of Nice, the Official Journal of the European Union.*

Number	Title	Publication
ECB/2002/1	Guideline of the European Central Bank of 27 February 2002 amending Guideline ECB/2001/3 on a Trans-European Automated Real-time Gross Settlement Express Transfer system (TARGET)	OJ L 67, 9.3.2002, pp. 74 – 76
ECB/2002/2	Guideline of the European Central Bank of 7 March 2002 amending Guideline ECB/2000/7 on monetary policy instruments and procedures of the Eurosystem	OJ L 185, 15.7.2002, pp. 1 – 78
ECB/2002/3	Regulation of the European Central Bank of 18 April 2002 amending Regulation ECB/1998/15 on the application of minimum reserves	OJ L 106, 23.4.2002, pp. 9 – 10
ECB/2002/4	Regulation of the European Central Bank of 6 June 2002 correcting Regulation ECB/2001/13 concerning the consolidated balance sheet of the monetary financial institutions sector	OJ L 151, 11.6.2002, p. 11
ECB/2002/5	Guideline of the European Central Bank of 30 July 2002 concerning certain statistical reporting requirements of the European Central Bank and the procedures for reporting by the national central banks of statistical information in the field of money and banking statistics	OJ L 220, 15.8.2002, pp. 67 – 71
ECB/2002/6	Guideline of the European Central Bank of 26 September 2002 on minimum standards for the European Central Bank and national central banks when conducting monetary policy operations, foreign exchange operations with the ECB's foreign reserves and managing the ECB's foreign reserve assets	OJ L 270, 8.10.2002, pp. 14 – 16
ECB/2002/7	Guideline of the European Central Bank of 21 November 2002 on the statistical reporting requirements of the European Central Bank in the field of quarterly financial accounts	OJ L 334, 11.12.2002, pp. 24 – 44
ECB/2002/8	Regulation of the European Central Bank of 21 November 2002 amending Regulation ECB/2001/13 concerning the consolidated balance sheet of the monetary financial institutions sector	OJ L 330, 6.12.2002, pp. 29 – 32
ECB/2002/9	Decision of the European Central Bank of 21 November 2002 on the distribution of the income of the European Central Bank on euro banknotes in circulation to the national central banks of the participating Member States	OJ L 323, 28.11.2002, pp. 49 – 50
ECB/2002/10	Guideline of the European Central Bank of 5 December 2002 on the legal framework for accounting and financial reporting in the European System of Central Banks	OJ L 58, 3.3.2003, pp. 1 – 37

Number	Title	Publication
ECB/2002/11	Decision of the European Central Bank of 5 December 2002 on the annual accounts of the European Central Bank	OJ L 58, 3.3.2003, pp. 38 – 59
ECB/2002/12	Decision of the European Central Bank of 19 December 2002 on the approval of the volume of coin issuance in 2003	OJ L 358, 31.12.2002, pp. 144 – 145
ECB/2002/13	Recommendation of the European Central Bank of 19 December 2002 to the Council of the European Union on the external auditors of the European Central Bank and Suomen Pankki	OJ C 331, 31.12.2002, p. 56

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 (www.ecb.int).

Annual Report

"Annual Report 1998", April 1999.

"Annual Report 1999", April 2000.

"Annual Report 2000", May 2001.

"Annual Report 2001", April 2002.

Convergence Report

"Convergence Report 2000", May 2000.

"Convergence Report 2002", May 2002.

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.
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"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.
"The euro area one year after the introduction of the euro: key characteristics and changes in the financial structure", January 2000.
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"The euro cash changeover in markets outside the euro area", October 2001.
"The information content of composite indicators of the euro area business cycle", November 2001.
"The economic policy framework in EMU", November 2001.
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"The stock market and monetary policy", February 2002.
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"The operation of automatic fiscal stabilisers in the euro area", April 2002.
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Annexes

Monetary policy chronology[1]

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 of the financial sector through its main refinancing operations. The Governing Council may adjust the allotment amount in the course of the year in the event of unexpected developments in liquidity needs.

7 February, 7 March, 4 April, 2 May, 6 June, 4 July 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.

10 July 2002

The Governing Council of the ECB decides to reduce the allotment amount for each of the longer-term refinancing operations to be conducted in the second half of 2002 from €20 billion to €15 billion. This latter amount takes into consideration the expected liquidity needs of the euro area banking system in the second half of 2002 and reflects the desire of the Eurosystem to continue to provide the bulk of liquidity through its main refinancing operations.

1 August, 12 September, 10 October, 7 November 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.

5 December 2002

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 2.75%, starting from the operation to be settled on 11 December 2002. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 3.75% and 1.75% respectively, both with effect from 6 December 2002.

In addition, it decides that the reference value for the annual growth rate of the broad monetary aggregate M3 will remain at 4½%.

9 January 2003

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 2.75%, 3.75% and 1.75% respectively.

23 January 2003

The Governing Council of the ECB decides to implement the following two measures to

1 *The chronology of monetary policy measures of the Eurosystem taken in 1999 to 2001 can be found on pages 176 to 180 of the ECB's Annual Report 1999, on pages 205 to 208 of the ECB's Annual Report 2000 and on pages 219 to 220 of the ECB's Annual Report 2001 respectively.*

improve the operational framework for monetary policy:

First, the timing of the reserve maintenance period will be changed so that it will always start on the settlement day of the main refinancing operation (MRO) following the Governing Council meeting at which the monthly assessment of the monetary policy stance is pre-scheduled. Furthermore, as a rule, the implementation of changes to the standing facility rates will be aligned with the start of the new reserve maintenance period.

Secondly, the maturity of the MROs will be shortened from two weeks to one week.

These measures are scheduled to come into effect during the first quarter of 2004.

Further to the press release of 10 July 2002, the Governing Council also decides to maintain at €15 billion the allotment amount for each of the longer-term refinancing operations to be conducted in the year 2003. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2003 and reflects the desire of the Eurosystem to continue to provide the bulk of liquidity through its main refinancing operations.

6 February 2003

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 2.75%, 3.75% and 1.75% respectively.

6 March 2003

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 2.50%, starting from the operation to be settled on 12 March 2003. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 3.50% and 1.50% respectively, both with effect from 7 March 2003.

Glossary

Accounting Regulatory Committee (ARC): established to assist the **European Commission (Commission of the European Communities)** in the endorsement of **International Accounting Standards (IAS)** which, as from 2005, will form the basis for the consolidated financial statements of companies listed on a European stock exchange.

Asset allocation: the process of distributing investment funds over different asset classes to achieve goals such as optimising portfolio risk/return characteristics.

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). The following ten countries have been invited to join the EU on 1 May 2004, following the signature and subsequent ratification of the Accession Treaty: the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia. Two other countries, Bulgaria and Romania, have already entered into accession negotiations and have been given the prospect of entry into the EU in 2007. Turkey is also an official candidate for accession and is included in the Economic Dialogue with the EU, but it has not yet started accession negotiations. When referring to accession countries, this Annual Report refers to the 12 countries with which negotiations for EU membership have been completed or are still ongoing.

Acquis communautaire: term commonly used to refer to all Community law including EU treaties, regulations and directives. Countries joining the EU must have implemented the existing *acquis communautaire* by the time of accession.

Back testing: the analysis of how an investment strategy would have performed if an investor had used it over a specific past period of time.

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.

Bond market: the market on which longer-term **debt securities**, i.e. debt securities with an original maturity of more than one year, are issued and traded.

Cash-recycling machine: a stand-alone, customer-operated device capable of receiving, processing and dispensing banknotes, i.e. providing the cash withdrawal functions of a standard automated teller machine together with a banknote depositing function.

Central government: the government as defined in the **European System of Accounts 1995 (ESA 95)** but excluding state and local governments (see **general government**). Sub-sector of the ESA 95 including all administrative departments of the state and other central agencies whose competence normally extends over the entire economic domain except for the administration of social security funds.

Chinese wall: a set of rules and procedures established to prevent inside information, for instance originating from the areas responsible for monetary policy implementation, from reaching the areas responsible for portfolio management. It aims at preventing any misuse of inside information or any situation which could lead to suspicion of such misuse, whether justified or not.

Collateral: assets pledged (e.g. by **credit institutions** with central banks) as a guarantee for the repayment of loans, as well as assets sold (e.g. to central banks by credit institutions) as part of **repurchase agreements**.

Comitology: generally refers to the procedures governing the relations between the **European Commission (Commission of the European Communities)** and the committees which assist the Commission in the exercise of implementing powers of Community law conferred by the **EU Council**. The different modalities of committee procedures are set out in the Council Decision of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission (1999/468/EC). The term also refers, more specifically, to the procedures for the adoption of Level 2 legislation within the Lamfalussy framework, as proposed by the Committee of Wise Men on the Regulation of European Securities Markets, according to which the Commission must submit to a regulatory committee draft measures implementing technical details of Level 1 legislation.

Committee on Monetary, Financial and Balance of Payments Statistics (CMFB): the forum for the co-ordination of statisticians from the national statistical institutes and **Eurostat** on the one hand, and the national central banks and the **European Central Bank (ECB)** on the other. The CMFB was created by Council Decision 91/115/EEC (OJ L 59, 6.3.1991, p. 19), amended by Council Decision 96/174/EC (OJ L 51, 1.3.1996, p. 48).

Committee of European Securities Regulators (CESR): this committee, which was created in June 2001 in the light of the recommendation of the Report of the Committee of Wise Men on the Regulation of European Securities Markets, is composed of representatives from the national authorities regulating the securities markets. As the Level 3 body of the revised European regulatory approach, it advises the **European Commission (Commission of the European Communities)** on securities policy issues and plays an important role in the transposition of Community law in the Member States.

Consolidated MFI balance sheet: this is obtained by netting out inter-MFI positions (e.g. inter-MFI loans and deposits) on the aggregated MFI balance sheet. It provides statistical information on the MFI sector's assets and liabilities vis-à-vis non-MFI **euro area** residents (i.e. **general government** and other euro area residents) and on its external assets and liabilities (i.e. balances vis-à-vis non-euro area residents). This 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**.

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 national borders, but are also provided in some domestic contexts where they are known as agency relationships. 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 (ESCB)** with the aim of enabling **counterparties** to obtain credit from the central bank of the country in which they are based using **collateral** held in another country. In the CCBM, a national central bank (NCB) acts as custodian for the other NCBs with regard to the securities held in its domestic **securities settlement system (SSS)**.

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 provided by the euro area **monetary financial institution (MFI)** sector to non-MFI **euro area** residents (including **general government** and other euro area residents). It is defined as including loans granted by MFIs and MFI holdings of securities. The latter include shares, other equity and **debt securities** issued by non-MFI euro area residents.

Currency in circulation: comprises banknotes and coins in circulation that are commonly used to make payments. Throughout 2002, currency in circulation included banknotes issued by the **Eurosystem** and by other **monetary financial institutions (MFIs)** (in Ireland and Luxembourg) as well as coins issued by the **euro area central governments** denominated in both **euro** and the legacy currencies, even though the euro has been the sole legal tender in all euro area countries since 1 March 2002. Banknotes of legacy currencies ceased to be included in banknotes in circulation as from 1 January 2003, both for Eurosystem financial reporting and for statistical purposes. The same has been applied consistently for coins of legacy currencies. Currency in circulation as included in **M3** is a net concept, meaning that it refers only to banknotes and coins in circulation held outside the MFI sector (i.e. currency held by MFIs or "vault cash" has been subtracted). Furthermore, it includes neither central banks' stocks of own banknotes (as they have not been put into circulation), nor commemorative coins (that are not commonly used to make payments).

Debt financing of the euro area non-financial sectors: this includes the debt financing of **households**, **non-financial corporations** and **general government**. It can take the following forms: loans granted by **euro area monetary financial institutions (MFIs)** and other financial corporations; **debt securities** issued by non-financial corporations and general government; **pension fund reserves of non-financial corporations**; and deposit liabilities of **central**

government. Not included are loans from general government, non-financial corporations or banks resident outside the euro area, financial derivatives, shares, other equity and **other accounts payable**. On an annual basis, a broader measure of this debt financing can be calculated that also includes loans from non-financial sectors and from banks resident outside the euro area.

Debt ratio: the subject of one of the fiscal criteria used to define the existence of an excessive deficit, as 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**.

Debt securities: these securities represent a promise on the part of the issuer (borrower) to make one or more payment(s) to the holder (lender) at a specified future date or dates. They usually carry a specific rate of interest (coupon) and are otherwise sold at a discount to the amount that will be repaid at maturity. The holder's income from the debt securities therefore consists of any coupon payments received together with the difference between the purchase price of the bond and its market value upon sale or maturity. They are negotiable and can be traded on secondary markets, but they do not grant the holder any ownership rights in the issuing unit. Money market paper and, in principle, private placements are included in the debt securities statistics of the **European Central Bank (ECB)**.

Deficit ratio: the subject of one of the fiscal criteria used to define the existence of an excessive deficit, as 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**.

Delivery versus payment (DVP): a mechanism in a **securities settlement system (SSS)** which ensures that the delivery of assets (securities or other financial instruments) occurs if, and only if, payment 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 on demand a certain fixed amount in a specified period or of early 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 unconvertible prior to maturity or convertible only subject to the payment of 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 euro area MFI sector**.

ECOFIN Council: see **EU Council**.

Economic and Financial Committee (EFC): a consultative Community body set up at the start of Stage Three of **Economic and Monetary Union (EMU)**, when the Monetary Committee was dissolved. The Member States, the **European Commission (Commission of the European Communities)** 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 (EMI)**, 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 (ECB)** and the introduction of the **euro**. The cash changeover on 1 January 2002 completed the set-up of EMU.

Economic Policy Committee (EPC): a consultative Community body which contributes to the preparation of the work of the Council in co-ordinating the economic policies of the Member States and of the Community and provides advice to the Commission and the Council. It works in close co-operation with the **Economic and Financial Committee (EFC)** and focuses mainly on structural policies aimed at improving growth potential and employment in the Community. The Committee, which is provided for in Article 272 of the **Treaty**, was set up by a Council Decision in 1974. The Member States, the **European Commission** and the **European Central Bank (ECB)** each appoint up to four members of the Committee who are selected from senior officials possessing outstanding competence in the field of economic and structural policy formulation.

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 (ECB)** calculates nominal EER indices for the **euro** against the currencies of a narrow and a broad group of trading partners of the **euro area**. Since January 2001, the narrow group has consisted of 12 industrial and newly industrialised partner countries, while the broad group has been made up of 38 trading partners including emerging market and transition economies. 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 as a prepaid bearer instrument for making payments to undertakings other than the issuer, without necessarily involving bank accounts in the transactions (see also **multi-purpose prepaid card**).

Electronic Payment Systems Observatory (ePSO): an open information-sharing infrastructure on electronic payments. Its aim is to foster an exchange of views between market participants and to serve as a source of information. Initially, ePSO was an initiative of the European Commission but since early 2003, it has been run by the ECB. The ePSO website can be accessed under www.e-pso.info.

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.

EONIA swap rate: an **EONIA** swap is an agreement between two parties whereby a set of variable payments indexed to the EONIA and a set of payments at a fixed rate are exchanged over an agreed period of time. The interest rate on the fixed leg of this type of swap is referred to as the EONIA swap rate and reflects the expected average level of the EONIA over the maturity of the swap. EONIA swaps are offered at maturities of one to three weeks and one to 12 months and are traded over the counter bilaterally in the money market.

Equity market: the market in which claims to a share in the ownership of a business are issued and traded. A major difference between equity and debt is that the former does not have to be repaid by the issuer.

ERM II (exchange rate mechanism II): the exchange rate arrangement which provides the framework for exchange rate policy co-operation between the **euro area** countries and the EU Member States not participating in the euro area from the start of Stage Three of **Economic and Monetary Union (EMU)**. 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 its central rate against the **euro** of ±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 (ECB)** 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**).

EUREPO: the rate at which one prime bank offers funds in **euro** to another prime bank in exchange for collateral consisting exclusively of government bonds and bills issued by euro area countries. The EUREPO's calculation methodology is similar to that of the **EURIBOR**. It is representative of rates in the secured markets (repo markets), by contrast with the EURIBOR which reflects conditions in the unsecured market. The panel of banks is also different.

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 single currency adopted by the **European Council** at its meeting in Madrid on 15 and 16 December 1995.

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 (ECB)**. 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 banking 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 1) 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 **euro area** countries. It meets on a regular basis (usually prior to meetings of the ECOFIN Council) to discuss issues connected with the euro area countries' shared responsibilities for the single currency. The **European Commission (Commission of the European Communities)** and, when appropriate, the **European Central Bank (ECB)** 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 through its own activities or through those of 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 (Commission of the European Communities)** (see also **EU Council**).

European Monetary Institute (EMI): a temporary institution established at the start of Stage Two of **Economic and Monetary Union (EMU)** 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 (ESCB)**, for the conduct of the single monetary policy and for the creation of a single currency in Stage Three. It went into liquidation upon the establishment of the **European Central Bank (ECB)** 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 (EMU)**, the Parliament has mainly consultative powers. However, the **Treaty** establishes certain procedures for the democratic accountability of the **European Central Bank (ECB)** to the Parliament (presentation of the Annual Report, general debate on monetary policy, testimonies before the competent parliamentary committees).

European Payments Council (EPC): governance body consisting of 52 institutions, including commercial banks, co-operative banks and savings banks, entrusted with bringing about the single euro payment area and with representing the European banking industry on issues related to payment systems. The inaugural assembly of the EPC was held on 17 June 2002.

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): composed of the **European Central Bank (ECB)** and the national central banks (NCBs) of all 15 Member States, i.e. it includes, in addition to the members of the **Eurosystem**, the NCBs 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 (Commission of the European Communities)** and is responsible for the production of Community statistics.

EURO STOXX: STOXX Limited 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 international reserves: these comprise the reserve assets of the **European Central Bank (ECB)** and the reserve assets held by the national central banks (NCBs) of the euro area countries. Reserve assets must be under the effective control of the relevant monetary authority, whether the ECB or the NCB of one of the euro area countries, and comprise highly liquid, marketable and creditworthy foreign (i.e. non-**euro**) currency-denominated claims on non-euro area residents, plus gold, special drawing rights and the reserve positions in the International Monetary Fund of the euro area NCBs.

Excessive deficit procedure: the provision defined in Article 104 of the **Treaty** and specified in Protocol No. 20 on the excessive deficit procedure requires EU Member States to maintain budgetary discipline, defines criteria for a budgetary position to be considered an excessive deficit and regulates the steps to be taken following the observation that the requirements for the budget balance or government debt have not been fulfilled. This is supplemented by an **EU Council** Regulation on speeding up and clarifying the implementation of the excessive deficit procedure, which is an element of the **Stability and Growth Pact**.

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 countries that 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 establish 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 (ECB)**) buy or sell **euro** spot against a foreign currency and, at the same time, sell or buy them back in a forward transaction.

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 (ESA 95)**, 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 countries that 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 (Commission of the European Communities)** (**Eurostat**) in close liaison with the national statistical institutes and the **European Monetary Institute (EMI)**, and later the **European Central Bank (ECB)**, in order to fulfil the **Treaty** requirement for a consumer price index constructed on a comparable basis, taking into account differences in national definitions.

High Level Group of Company Law Experts: set up by the **European Commission (Commission of the European Communities)** in September 2001 to make recommendations on a modern regulatory framework for company law in the European Union. In January 2002 the Group produced a report which addressed issues relating to the Takeover Bids Directive. In April 2002 the Group's mandate was extended to deal specifically with a number of corporate governance issues.

Households: one of the institutional sectors in the **European System of Accounts 1995 (ESA 95)**. The household sector covers individuals or groups of individuals as consumers, but possibly also as entrepreneurs (i.e. sole proprietorships and partnerships). Non-profit institutions serving households are a separate institutional sector according to the ESA 95, although they are often grouped together with households in statistics.

Implied bond market volatility: a measure of expected volatility in the prices of bonds (or of futures contracts on bonds), which can be extracted from **option** prices. Given the observed market price of a bond 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 bonds, such as the ten-year German Bund, or bond futures contracts. Given appropriate assumptions, the implied volatility may be interpreted as the market's expectation of volatility during the remaining life of the option.

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 interest rate 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 government 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.

Implied stock market volatility: a measure of expected volatility in stock prices, which can be extracted from **option** prices. Given the observed market price of an equity 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 stock market indices, such as the Dow Jones **EURO STOXX** 50 index. 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 enable the processing of cross-border payments within TARGET.

International Accounting Standards (IAS): statements issued by the **International Accounting Standards Board (IASB)**. They are enforceable global standards on the provision of transparent and comparable information in general-purpose financial statements. In April 2001 the IASB announced that its accounting standards would in future be designated **International Financial Reporting Standards (IFRS)**.

International Accounting Standards Board (IASB): an independent, privately funded setter of accounting standards based in London, United Kingdom.

International Financial Reporting Standards (IFRS): see **International Accounting Standards (IAS)**.

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: procedures and arrangements between **securities settlement systems (SSSs)** for the transfer of securities through a book-entry process. As an alternative to the **CCBM**, the **Eurosystem** uses eligible links for the cross-border mobilisation of **collateral**.

Longer-term financial liabilities of the euro area MFI sector: these non-monetary liabilities include **deposits with agreed maturity** of over two years, **deposits redeemable at notice** of over three months, **debt securities** issued with an original maturity of more than two years, and the capital and reserves of the euro area **monetary financial institution (MFI)** sector.

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.

Lump-sum allowance: a fixed amount which a **credit 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**).

MFI interest rates: those interest rates that are applied by resident credit institutions and other institutions to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in euro area countries. The requirements for the MFI interest rate statistics are laid down in Regulation ECB/2001/18 of 20 December 2001. The non-harmonised statistics produced according to a short-term approach, using already existing national retail interest rate statistics, are referred to as **retail bank interest rates**.

Minimum bid rate: the lower limit to the interest rates at which **counterparties** may submit bids in the variable rate tenders of the **main refinancing operations**. As a **key ECB interest rate** it plays, at present, the role previously performed by the rate in fixed rate tenders.

Monetary aggregates: currency in circulation, plus outstanding amounts of certain liabilities of **monetary financial institutions (MFIs)** and central governments that have a relatively high degree of liquidity and are held by non-MFI **euro area** residents outside the central government sector. 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 and units**, and money market paper and **debt securities** with a maturity of up to two years issued by MFIs. In October 1998 the **Governing Council** announced a reference value for the growth of M3, which it has since reconfirmed (see also **reference value for monetary growth**).

Monetary financial institutions (MFIs): financial institutions which form the money-issuing sector of the **euro area**. These include the **Eurosystem**, 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 2002, there were 8,545 MFIs in the euro area (13 central banks, 6,907 credit institutions, 1,620 money market funds and five other financial institutions).

Monetary income: income accruing to the national central banks in the performance of the **Eurosystem**'s monetary policy function, derived from assets earmarked in accordance with guidelines established by the **Governing Council** and held against banknotes in circulation and deposit liabilities to **credit 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, services 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.

Money market fund: a collective investment undertaking which primarily invests in money market instruments and/or other transferable debt instruments with a residual maturity of up to one year, and/or which pursues a rate of return that approaches the interest rates on money market instruments.

Money market fund shares and units: shares and units issued by a **money market fund**.

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 (e-money)**).

Net external assets of the MFI sector: external assets held by **euro area monetary financial institutions (MFIs)** minus external liabilities of the euro area MFI sector. External assets held by euro area MFIs mainly include gold, holdings of non-euro banknotes, holdings of securities issued by non-euro area residents and loans granted to non-euro area residents (including deposits held with banks resident outside the euro area). External liabilities of the euro area MFI sector mainly include deposits held by non-euro area residents and loans from non-euro area residents. Changes in the net external assets of the euro area MFI sector mainly reflect transactions of euro area non-MFIs with non-euro area **counterparties**, which are intermediated by the MFI sector.

Net settlement system (NSS): a **funds transfer system**, the settlement operations of which are completed on a bilateral or multilateral net basis.

Nikkei 225 index: an index of the 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange. It is a market value-weighted index (i.e. each stock price is multiplied by the number of shares outstanding), with each stock's weight in the index thus being proportionate to its market value.

Non-financial corporations: one of the institutional sectors in the **European System of Accounts 1995 (ESA 95)**. This sector consists of institutional units whose distributive and financial transactions are distinct from those of their owners. Non-financial corporations encompass all bodies recognised as independent legal entities which are market producers and whose principal activity is the production of goods and non-financial services.

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.

Other accounts payable: financial liabilities created as a counterpart of a financial or non-financial transaction when there is a time-lag between this transaction and the corresponding payment.

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 on demand (by cheque or similar instrument) without significant delay, restriction or penalty. It also includes non-transferable deposits that are convertible on demand or by close of business on the following day.

Pension fund reserves of non-financial corporations: provisions or similar funds set aside by non-financial corporations to pay for their employees' pensions (so-called non-autonomous pension funds).

Price stability: the maintenance of price stability is the primary objective of the **European Central Bank (ECB)**. In October 1998, the **Governing Council** 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 defined 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 (ECB)** 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**.

Reference value for monetary growth: the **Governing Council** assigns money a prominent role in the conduct of the single 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 mechanistically 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 **debt ratio** (60% of GDP) (see also **Stability and Growth Pact**).

Reports on the Observance of Standards and Codes (ROSCs): in these reports, the IMF and the World Bank assess to what extent a member country adheres to internationally accepted standards and codes covering 12 areas: data dissemination, fiscal transparency, monetary and financial policy transparency, banking supervision, securities, insurance, payments systems, corporate governance, accounting, auditing, insolvency and creditor rights, and measures against money laundering and terrorism financing. ROSCs are prepared and published at the request of the IMF member country.

Repurchase agreement: an agreement to sell an asset and to repurchase it at a specified price on a predetermined future date or on demand. Such an agreement is similar to collateralised borrowing, although it differs in that ownership of the securities is not retained by the seller. Repurchase agreements are included in **M3** in cases where the seller is a **monetary financial institution (MFI)** and the **counterparty** is a non-MFI **euro area** resident.

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.

Retail bank interest rates: see **MFI interest rates**.

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, which involves, for instance, the determination of settlement positions and the monitoring of the exchange of payments, 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.

Sovereign Debt Restructuring Mechanism (SDRM): IMF initiative to establish a statutory framework for restructuring sovereign external debt. The SDRM would facilitate timely and comprehensive agreements between debtors and creditors in cases of severe indebtedness.

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 report **stability programmes**, while non-participating countries continue to provide **convergence programmes**.

Stability programmes: medium-term government plans and assumptions provided by **euro area** countries 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 (Commission of the European Communities)** and the **Economic and Financial Committee (EFC)**, 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 is in line with a budgetary position close to balance or in surplus, providing 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.

Standard & Poor's 500 index: Standard & Poor's publishes a number of indices, which measure stock market developments in the United States as a whole. The Standard & Poor's 500 index is one member of this index family. It consists of 500 stocks chosen on the basis of market size, liquidity and industry group representation. It is a market value-weighted index (i.e. each stock price is multiplied by the number of shares outstanding), with each stock's weight in the index thus being proportionate to its market value.

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**.

Stress testing: analysis of how an investment strategy would perform if some assumptions regarding adverse changes in relevant risk factors were made (e.g. higher volatility and correlation between portfolio instruments).

TARGET (Trans-European Automated Real-time Gross settlement Express Transfer system): the **RTGS system** for the **euro**. It is a decentralised system consisting of 15 national RTGS systems and the payment mechanism of the **European Central Bank (ECB)**. These are interconnected by common procedures (see **interlinking mechanism**) to allow cross-border transfers throughout the European Union to move from one system to another.

TARGET2: second generation of the **TARGET** system to be developed in view of increasing financial integration within the **euro area**. The main objectives of TARGET2 will be (i) to better meet customers' needs by providing an extensively harmonised service level, (ii) to guarantee cost efficiency and (iii) to be prepared for swift adaptation to future developments, including the enlargement of the European Union and of the **Eurosystem**. In TARGET2, the national central banks will remain responsible for the accounts and business relations with **credit institutions**.

Tier one asset: a marketable asset fulfilling certain uniform **euro area**-wide eligibility criteria specified by the **European Central Bank (ECB)**.

Tier two asset: a marketable or non-marketable asset fulfilling specific eligibility criteria established by a national central bank, subject to **European Central Bank (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, and most recently the "Treaty of Nice", which was signed on 26 February 2001 and entered into force on 1 February 2003, amended both the Treaty establishing the European Community and the Treaty on European Union.

UCITS: undertaking the sole object of which is the collective investment in transferable securities of capital raised from the public and the units of which are, at the request of the holders, repurchased or redeemed out of the undertaking's assets.

UMTS (Universal Mobile Telecommunications System): system for "third generation" mobile telecommunications. Licences for mobile telecommunications frequencies are sold or awarded by European Union governments to telecommunications companies.

Uncovered bond: a bond backed only by the integrity of the borrower and not by **collateral**.

Value at Risk (VaR): a risk measure of a portfolio's maximum loss during a specific period of time at a given level of probability.

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 its liquidity-providing **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.