The Monetary Policy of the ECB

2001

EUROPEAN CENTRAL BANK

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Address	**Kaiserstrasse 29**
	60311 Frankfurt am Main
	Germany
Postal address	**Postfach 16 03 19**
	60066 Frankfurt am Main
	Germany
Telephone	**+49 69 1344 0**
Internet	**http://www.ecb.int**
Fax	**+49 69 1344 6000**
Telex	**411 144 ecb d**

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Foreword

On 1 January 1999, upon the successful completion of substantial preparatory work, Stage Three of Economic and Monetary Union (EMU) started, and the European Central Bank (ECB) assumed responsibility for the single monetary policy in the euro area. This date marked the culmination of years of effort to create a durable framework for monetary stability in Europe and also represented an important milestone in the wider context of European economic and political integration.

The Treaty establishing the European Community, as amended by the Treaty on European Union, lays down a sound institutional framework for economic policy-making in Europe. Within that framework, responsibility for monetary policy is given to an independent institution, the ECB, which is assigned the maintenance of price stability as its primary objective. Maintaining price stability is the best contribution that monetary policy can make to an environment of economic stability conducive to the wider objectives of the European Community, such as economic growth and employment creation.

In 1998 the Governing Council of the ECB announced its monetary policy strategy, designed to achieve the mandate assigned by the Treaty. The strategy includes a quantitative definition of the objective of price stability. This definition provides an anchor for inflation expectations and sets a benchmark against which the public can hold the ECB accountable for its performance. When announcing this definition, the Governing Council emphasised that price stability is to be maintained over the medium term. Moreover, the strategy describes the analytical framework which guides the Governing Council in taking decisions best suited to maintaining price stability. The framework for assessing risks to price stability rests on two pillars. The first pillar assigns a prominent role to money, including the announcement of a reference value for monetary growth. This reflects the monetary origins of inflation over the medium to long term. Under the second pillar of the monetary policy strategy, the Governing Council regularly monitors and analyses a wide range of other economic and financial indicators which affect price developments over the short to medium term.

The appropriate conduct of monetary policy in an uncertain world is a challenge for any central bank. Uncertainties about economic relationships and possible changes in the structure of the economy are particularly evident in the case of a new and diverse currency area. The ECB's monetary policy strategy provides a robust basis for accommodating such uncertainties.

It is not surprising that the ECB's approach to monetary policy-making has generated great interest and has been subject to intense scrutiny. This publication is intended to provide the public with a comprehensive overview of the ECB's monetary policy and its economic and institutional background. It should be seen as a complement to the ECB's regular publications, such as its Monthly Bulletin and Annual Report, as well as various other ECB

publications on specific subjects. All these publications are available on the ECB's website (http://www.ecb.int).

This publication is set out as follows: Chapter 1 summarises the institutional aspects most relevant for understanding the ECB's monetary policy; Chapter 2 provides an overview of the main economic and financial structures of the euro area economy; Chapter 3 presents the monetary policy strategy of the ECB; Chapter 4 explains how monetary policy decisions are implemented using the available monetary policy instruments; and Chapter 5 illustrates how monetary policy was conducted in the first two years of Stage Three of EMU.

Frankfurt am Main, August 2001

Willem F. Duisenberg

1 The institutional framework of the single monetary policy

On 1 January 1999 the European Central Bank (ECB) assumed responsibility for monetary policy in the euro area – the second largest economic area in the world after the United States. The transfer of responsibility for monetary policy from 11 national central banks – which became 12, with the participation of Greece, on 1 January 2001 – to a new supranational institution represented a milestone in a long and complex process of integration among European countries. Before adopting the euro, all candidate countries were required to fulfil a number of convergence criteria, which were aimed at ensuring the economic and legal preconditions for successfully participating in a stability-oriented monetary union. This chapter describes the institutional aspects most relevant for understanding the ECB's monetary policy.

The ECB, the ESCB and the Eurosystem

The Treaty is the legal basis for the single monetary policy…

The legal basis for the single monetary policy is the Treaty establishing the European Community (as amended). (Relevant legal provisions can be found in Annexes 1 and 2.)

…and established the ECB and the ESCB

The Treaty and the Statute of the European System of Central Banks and of the European Central Bank (Statute of the ESCB), which is attached to that Treaty as a protocol, established both the ECB and the European System of Central Banks (ESCB) as from 1 June 1998. The ESCB comprises the ECB and the national central banks (NCBs) of all EU Member States.[1]

The Eurosystem

NCBs of the EU Member States which have not adopted the euro (in 2001 these were Denmark, Sweden and the United Kingdom) are part of the ESCB but do not participate in monetary policy decision-making for the euro area[2] or in the operational implementation of these decisions. For this reason, the decision-making bodies of the ECB have chosen the term "Eurosystem" to describe the arrangement whereby the ECB and the NCBs of participating Member States carry out the tasks of the ESCB within the euro area (see Chart 1.1).

The objective of the single monetary policy and tasks to be carried out through the Eurosystem

Overriding importance of price stability

The Treaty (Article 105 (1)) – which refers to the ESCB rather than to the Eurosystem, since it was drawn up on the premise that eventually all EU Member States would adopt the euro – states that "the primary objective of the ESCB shall be to maintain price stability" and that, "without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2". In this respect,

1 *In contrast to the ESCB as a whole, the ECB has been vested with legal personality by the Treaty. Each of the NCBs has legal personality, as provided by the national laws of the respective country.*

2 *The term "euro area" refers to the area comprising those EU Member States which have adopted the euro.*

Chart 1.1

Article 2 of the Treaty mentions as objectives of the Community, inter alia, "a high level of employment (…), sustainable and non-inflationary growth, a high degree of competitiveness and convergence of economic performance". The Treaty thus establishes a clear hierarchy of objectives for the ECB and assigns overriding importance to price stability. By focusing the monetary policy of the ECB on this primary objective, the Treaty makes it clear that ensuring price stability is the most important contribution that monetary policy can make to achieving a favourable economic environment and a high level of employment.

Basic tasks of the Eurosystem

In accordance with the Treaty (Article 105 (2)) and the Statute of the ESCB (Article 3), the basic tasks to be carried out through the Eurosystem are:

- the definition and implementation of the monetary policy of the euro area;
- the conduct of foreign exchange operations;
- the holding and management of the official foreign reserves of the Member States; and
- the promotion of the smooth operation of payment systems.

The ECB has the exclusive right to authorise the issuance of banknotes within the euro area. In co-operation with the NCBs, the ECB collects the statistical information necessary for monetary policy purposes, either from national authorities or directly from economic agents. Furthermore, the Eurosystem shall contribute to the smooth conduct of policies pursued by the authorities

in charge of the prudential supervision of credit institutions and the stability of the financial system. In accordance with Article 6 of the Statute of the ESCB, the ECB and, subject to its approval, the NCBs may participate in international monetary institutions. The ECB shall decide how the Eurosystem shall be represented in the field of international co-operation.

The decision-making bodies of the ECB

There are two decision-making bodies of the ECB which are responsible for the preparation, conduct and implementation of the single monetary policy: the Governing Council of the ECB and the Executive Board of the ECB.

Governing Council of the ECB

The Governing Council consists of the six members of the Executive Board and the governors of the euro area NCBs (12 governors in 2001). Both the Governing Council and the Executive Board are chaired by the President of the ECB or, in his absence, by the Vice-President. The responsibilities of the Governing Council are:

- to adopt the guidelines and take the decisions necessary to ensure the performance of the tasks entrusted to the Eurosystem; and
- to formulate the monetary policy of the euro area.

In accordance with the Statute of the ESCB (Article 12.1), the formulation of monetary policy for the euro area includes taking decisions on "intermediate monetary objectives, key interest rates and the supply of reserves" in the Eurosystem. Moreover, the Governing Council shall establish the necessary guidelines for the implementation of those decisions.

Executive Board of the ECB

The Executive Board consists of the President and the Vice-President of the ECB and four other members, all appointed by common accord of the Heads of State or Government of the euro area countries. The Executive Board:

- prepares the meetings of the Governing Council;
- implements monetary policy in accordance with the guidelines and decisions laid down by the Governing Council and, in so doing, gives the necessary instructions to the euro area NCBs;
- is responsible for the current business of the ECB; and
- assumes certain powers delegated to it by the Governing Council, which may include powers of a regulatory nature.[3]

Central bank independence

Independence from political influence

The institutional framework for the single monetary policy assigns the pursuit of the primary objective of price stability to a central bank that is independent from political influence. A large body of theoretical analysis, supported by

3 A third decision-making body of the ECB is the General Council. It is composed of the President and the Vice-President of the ECB and the governors of the NCBs of all the EU Member States (15 in 2001). The General Council will remain in existence as long as there are Member States which have not adopted the euro as their currency. While the General Council has no responsibility for monetary policy decisions in the euro area, it contributes to the collection of statistical information and helps make the necessary preparations for irrevocably fixing the exchange rates of Member States which have not yet adopted the euro.

substantial empirical evidence, indicates that central bank independence is conducive to maintaining price stability.

Article 108 (ex Article 107) of the Treaty (and Article 7 of the Statute of the ESCB) lays down the important principle of central bank independence. When exercising the powers and carrying out the tasks and duties conferred upon them, neither the ECB nor the NCBs, nor any member of their decision-making bodies, are allowed to seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and the governments of the Member States also have to respect this principle and must not seek to influence the members of the decision-making bodies of the ECB.

Further provisions which help to safeguard independence

There are also other provisions to safeguard the independence of the ECB and its decision-making bodies. For instance, the ECB's financial arrangements are kept separate from the financial interests of the European Community. The ECB has its own budget, and its capital is subscribed and paid up by the euro area NCBs. Long terms of office for the members of the Governing Council, and a rule stipulating that members of the Executive Board cannot be re-appointed, also contribute to minimising potential political influence on individual members of the ECB's decision-making bodies. Furthermore, the ECB's independence is preserved by the Treaty prohibition of any provision of central bank credit to the public sector (see Box 2.1).

Exchange rate policy also has to focus on price stability

The Treaty also contains provisions ensuring that the pursuit of the objective of price stability has to be fully respected by the single exchange rate policy. While the Treaty foresees that decisions on foreign exchange policy are a shared responsibility of the ECOFIN Council and the ECB, its provisions ensure that foreign exchange policy is fully consistent with the primary objective of the single monetary policy. First, Article 4 (ex Article 3a) of the Treaty explicitly states that the primary objective of both the single monetary policy and exchange rate policy shall be to maintain price stability. Second, as regards the overall framework within which exchange rate policy is to be conducted, the Treaty requires that decisions in this area shall be without prejudice to the primary objective of price stability. Finally, the sole competence for deciding on and carrying out operations in the foreign exchange market lies with the ECB.

Reporting obligations

Provisions to ensure accountability

To retain legitimacy, an independent central bank must be accountable to democratic institutions and the general public for its actions in the pursuit of its mandate. Without encroaching on the ECB's independence, Article 15 of the Statute of the ESCB imposes precise reporting obligations on the ECB. The ECB has to publish quarterly reports on the activities of the Eurosystem as well as a weekly consolidated financial statement. In addition, it has to provide an annual report on its activities and on the monetary policy of the previous and the current year. The annual report has to be addressed to the European Parliament, the EU Council, the European Commission and the European Council. In order to be as transparent as possible, the ECB has decided to go beyond these statutory reporting requirements (see Chapter 3).

2 The economic and financial structure of the euro area

The pursuit of the objective of price stability requires an understanding of the factors that shape the price formation process, including the transmission of monetary policy. This chapter provides an overview of the main economic and financial structures of the euro area economy. The key characteristics of the real economy are considered first, focusing on the composition of output, demographic and key labour market features and fiscal policy, as well as patterns of trade between the euro area and the rest of the world. Following on from this, the key characteristics of the financial structure are described by examining the money and capital markets and the main financial institutions involved, distinguishing Monetary Financial Institutions (MFIs) from other financial intermediaries.

2.1 Key characteristics of the real economy

The euro area economy is one of the largest in the world

While prior to the establishment of Monetary Union the individual countries that now comprise the euro area could be considered relatively small and open economies, the euro area as a whole forms a large, much more closed economy. Therefore, the structural features of the euro area are better compared with those of the United States or Japan, than with those of individual euro area countries. A number of key macroeconomic characteristics of the euro area are presented in Table 2.1.

Population

Measured in terms of population, the euro area is one of the largest developed economies in the world: it had a total population of 303 million in 2000. As a comparison, the populations of the United States and Japan in 2000 were 276 and 127 million respectively. Chart 2.1 shows the differences in the age structure of the populations of the euro area and the United States. On average, the euro area countries have a lower share of younger people and a higher share of older people than the United States.

Share in world GDP

Measured in terms of its share of world GDP, the United States was the largest economy in 2000, with a weight of 22.0%, followed by the euro area with 16.0%, while the share of Japan in world GDP was 7.3%. The shares of the individual euro area countries were significantly smaller: the largest economy within the euro area accounted for 4.6% of world GDP in 2000.

Services sector has largest share in euro area GDP

The structure of production in the euro area closely resembles that in the United States and Japan. In all three economies, the services sector accounts for the largest share of total output. There is, however, an important difference in the shares of the public and private sectors in the overall services sector in the United States and the euro area. Specifically, the public services sector in the United States is relatively small, while the same sector accounts for a much larger share of the euro area economy. In both of these economies and in Japan the industrial sector accounts for the second largest share of total output. Given the highly developed nature of these economies, the share of agriculture, fishing and forestry is relatively small in all three.

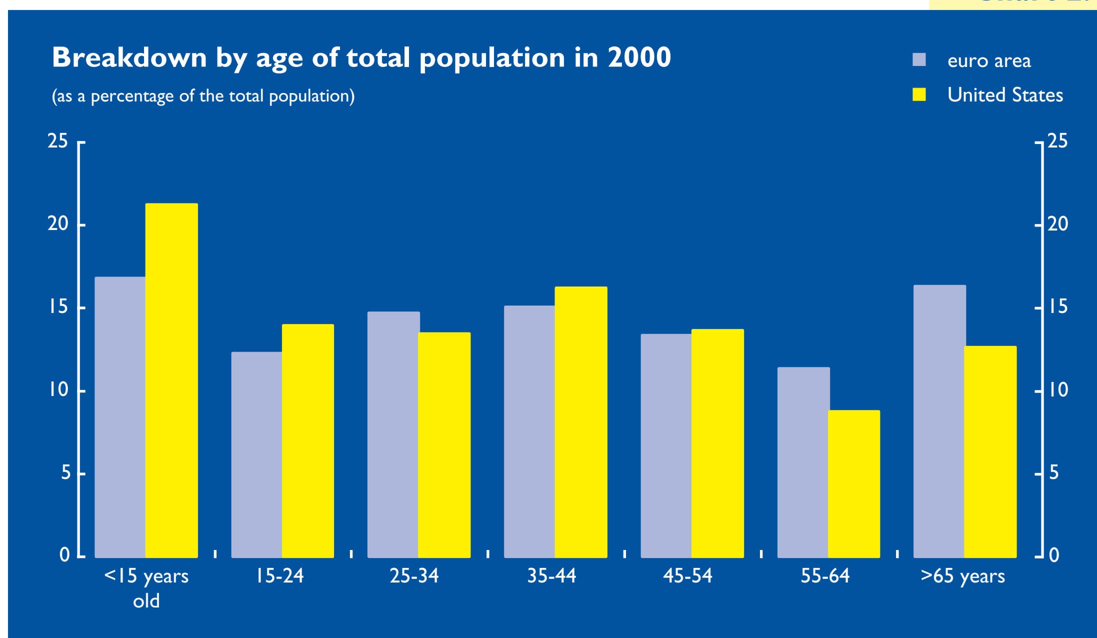
Table 2.1

Key real economy characteristics of the euro area in 2000

	Unit	Euro area	United States	Japan
Population	millions	303	276	127
GDP (share of world GDP) [1]	%	16.0	22.0	7.3
GDP per capita [1]	€	22,322	35,034	24,922
Sectors of production [2]				
Agriculture, fishing, forestry	% of GDP	2.7	1.4	1.7
Industry (including construction)	% of GDP	28.8	24.7	34.5
Services	% of GDP	68.5	73.9	63.8
Unemployment rate (share of the labour force)	%	8.9	4.0	4.7
Labour force participation rate [3]	%	67.3	77.2	72.4
Employment rate [3), 4]	%	61.2	74.1	68.9
General government [5]				
Surplus (+) or deficit (-)	% of GDP	-0.7	2.3	-8.6
Gross debt	% of GDP	70.3	57.3	130.4
Revenue	% of GDP	47.9	34.0	30.3
of which direct taxes	% of GDP	13.0	15.5	7.0
of which indirect taxes	% of GDP	14.2	6.8	8.5
of which social contributions	% of GDP	16.3	7.1	11.0
Expenditure	% of GDP	48.6	31.7	38.9
of which final consumption	% of GDP	19.8	14.1	16.6
of which social transfers	% of GDP	16.7	10.5	17.5
Exports of goods [6]	% of GDP	14.8	7.8	9.7
Exports of goods and services [6]	% of GDP	19.1	10.7	11.1
Imports of goods [6]	% of GDP	14.3	12.3	7.2
Imports of goods and services [6]	% of GDP	18.7	14.4	9.7
Exports (share of world exports) [7]	%	19.0	15.0	9.2
Current account balance [6]	% of GDP	-0.7	-4.4	2.5

Sources: Eurostat, IMF, European Commission, OECD, Reuters, ECB and ECB calculations.
Note: For all euro area aggregates contained in this table, data for Greece are included.
1) GDP shares are based on a purchasing power parity (PPP) valuation of country GDPs.
2) Based on real value added. Data for Japan refer to 1998 and for the United States to 1999.
3) Data for the United States and Japan refer to 1998.
4) As a ratio of the number of persons to the working age population (those aged between 15 and 64).
5) Euro area data exclude proceeds from UMTS licences.
6) Balance of payments data, only extra-euro area trade flows for the euro area. Data for the United States and Japan refer to 1999.
7) External trade statistics; world exports exclude intra-euro area trade flows.

Chart 2.1



Sources: Eurostat and the US Bureau of Census.

2.2 Labour market

The institutional aspects of labour markets, such as job protection legislation, unemployment benefit systems, the wage formation process and the taxation of labour, among others, play a significant role in determining economic developments. For instance, structural rigidities in labour markets reduce the speed at which an economy adjusts to adverse shocks (e.g. sudden economic slowdowns). Structural rigidities are therefore typically associated with relatively high and persistent unemployment. Moreover, rigidities in the labour market and the resulting structural unemployment tend to limit the pace at which an economy can grow without fuelling inflationary pressures.

Structural rigidities can hamper the efficient functioning of the labour market

The unemployment rate in the euro area – the number of unemployed persons as a share of the labour force – reached very high levels in the 1980s and 1990s. In 2000 it was only slightly below 9.0% on average. This corresponded to around 12.2 million unemployed in the euro area as a whole in 2000. Despite the decline observed in the late 1990s, the euro area unemployment rate has remained markedly higher than that in the United States (see Chart 2.2). This gap reflects both the very high rates of economic growth recorded in the United States in the late 1990s and structural differences between the labour markets in the United States and those in the euro area. These differences have led to a higher level of structural unemployment in the euro area. Reforms affecting institutional features of labour markets were implemented in euro area countries during the 1990s, but to differing extents. In some cases these reforms have significantly reduced the level of unemployment. Nevertheless, structural rigidities remain and these explained the still high levels of unemployment in the euro area in 2000.

Unemployment rate in the euro area higher than in the United States

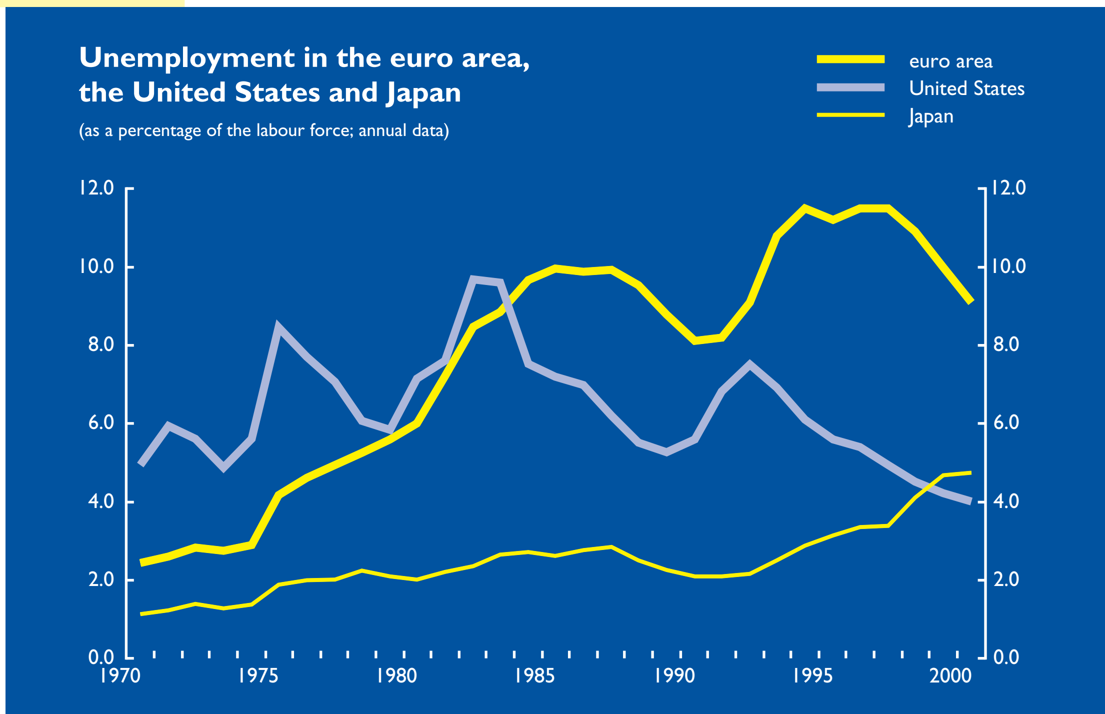
Relatively low labour force participation in the euro area

It is remarkable that the unemployment rate was higher, while the labour force participation rate, at 67.3% in 2000, was significantly lower in the euro area than in the United States (77.2%) or Japan (72.4%). The gap between labour force participation rates in the euro area and the United States (see Table 2.2) was much wider for women (around 13 percentage points) than it was for men (around 7 percentage points). The lower overall labour force participation rate in the euro area compared with the United States mainly reflects differences in the youngest and oldest age groups – participation rates for those aged 25 to 54 years are broadly similar on both sides of the Atlantic. In general, younger Europeans participate in the labour force significantly less than their American counterparts. This could be linked to differences in the traditions and structures of the education and social systems. In the euro area people also tend to leave the labour force at a younger age than those in the United States.

Euro area employment rate is relatively low

The lower participation rate combined with the higher unemployment rate results in a much lower employment rate (measured as the number of employed persons as a share of the population aged between 15 and 64 years) in the euro area than in either the United States or Japan. While in the euro area it was just above 61% in 2000, in the United States and Japan the employment rate was above or just below 70% respectively (see Table 2.1). This lower employment rate is one of the main reasons why GDP per capita is lower in the euro area than in the United States and Japan.

Chart 2.2



Source: European Commission.

Table 2.2

Participation rates by gender and age group in the euro area and the United States

(as a percentage of the working age population)

	Euro area			United States		
	males	**females**	**total**	**males**	**females**	**total**
All age groups	77.0	57.6	67.3	84.2	70.7	77.2
15-24 [1)]	47.8	40.9	44.3	68.4	63.3	65.9
25-34	92.1	74.4	83.3	93.2	76.3	84.8
35-44	95.7	73.4	84.5	92.6	77.1	84.9
45-54	90.8	64.2	77.4	89.2	76.2	82.7
55-59	67.1	40.7	53.8	78.4	61.3	69.5
60-64	29.4	12.8	20.8	55.4	39.1	46.9

Sources: Eurostat and OECD.
Note: Data for the United States refer to 1999 and for the euro area to 2000.
1) US data refer to the 16 to 24 age group.

2.3 Government sector

Fiscal policies affect the economy

Fiscal policies have a significant impact on economic growth and inflation. It is therefore important for monetary authorities like the ECB to follow fiscal policy developments closely. There are many channels through which fiscal policy affects the economy and prices. The level and composition of government expenditure and revenue, as well as budget deficits and public debt, are key variables in this process.

Sound fiscal policy needed for macroeconomic stability

Budgetary policies remain the exclusive competence of the Member States in Stage Three of EMU. However, there are a number of institutional arrangements in order to ensure sound public finances at the EU level (see Box 2.1). In particular, the *Stability and Growth Pact* aims to limit the risks to price stability that might otherwise arise from national fiscal policies. For example, an excessive increase in government spending at a time when the economy is already operating at close to full capacity could, by stimulating aggregate demand, lead to bottlenecks and generate inflationary pressures. Fiscal imbalances, with large budget deficits and mounting public debt, have characterised many inflationary episodes in history. Fiscal discipline is therefore a basic component of macroeconomic stability. As well as unbalanced budgets, high levels of government debt can also be detrimental. If a government has to meet sizeable interest expenses every year, the fiscal situation can become unsustainable and this may endanger price stability. High levels of debt may also have adverse effects on the real economy and the financial environment. In particular, excessive recourse to capital markets by governments tends to raise the cost of capital and this may crowd out private investment. Given the potential problems associated with fiscal imbalances, the Stability and Growth Pact represents an important commitment to maintaining fiscal policies conducive to overall macroeconomic stability.

The general government sector (i.e. central, state and local government as well as the social security sector) makes up a larger share of the euro area

The relatively large share of government expenditure in euro area GDP…

economy than it does in the United States or Japan. Government expenditure in the euro area accounted for 48.6% of GDP in 2000, while the ratio of general government revenue to GDP was 47.9%. By contrast, in the United States the general government sector accounted for around 32% of GDP measured in terms of expenditure and around 34% in terms of revenue. In 2000 Japan recorded a ratio of government expenditure to GDP of around 39% and a revenue ratio of 30% of GDP, thus indicating a large public deficit (see Table 2.1).

…reflects the large shares of final government consumption and social transfers to households

The relatively large share of government expenditure in GDP in the euro area reflects in particular the large shares of both final government consumption and social transfers to households. These cross-country differences are partly caused by differences in the distribution of functions between the private and public sectors. Given the characteristics of social security systems in Europe, the age structure of the euro area population also contributes to the high level of government expenditure. As shown in Chart 2.1, the population of the euro area is, on average, older than that of the United States and this affects pension and health expenditure. Unless policy reforms are undertaken in the affected Member States, the situation will be exacerbated in the future by the expected ageing of the population in the euro area.

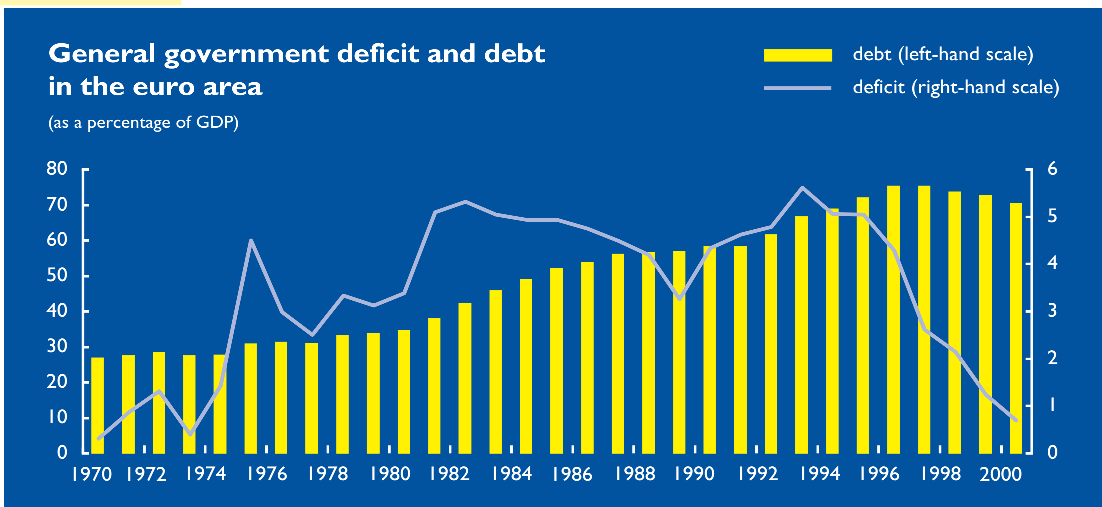
Government revenue

With regard to the structure of government revenue, the euro area relies more heavily on social contributions than either the United States or Japan. Moreover, greater use is made of indirect taxation as a source of revenue in the euro area, while the United States relies more heavily than the euro area on direct taxation as a share of total tax revenue.

Fiscal deficit

Government expenditure exceeded government revenue in the euro area throughout the period from 1970 to 2000. Accordingly, the general government budget balance recorded a deficit in each year throughout that period. The deficit widened to almost 6.0% of GDP in 1993, but then diminished gradually to stand at 0.7% in 2000 (see Chart 2.3).

Chart 2.3



Sources: European Commission, OECD and ECB calculations.
Note: Euro area deficit data for 2000 exclude the proceeds from UMTS licences.

Box 2.1

Institutional arrangements for sound public finances at the EU level

While the Treaty institutes a single monetary policy, it maintains national responsibilities for other economic (e.g. fiscal and structural) policies. However, it stipulates that Member States shall "regard their economic policies as a matter of common concern" (Article 99 (ex Article 103) of the Treaty).

In addition, the Treaty contains several provisions aimed at ensuring sound government finances in Stage Three of EMU, given that fiscal policy remains the responsibility of the national governments. One relates to the excessive deficit procedure, as defined in Article 104 (ex Article 104c) and a protocol annexed to the Treaty. This procedure lays down the conditions that must prevail for a budgetary position to be judged sound. Should the EU Council decide that an excessive deficit exists in a certain Member State, the procedure provides for further steps to be taken, including sanctions.

The Stability and Growth Pact (SGP) complements the excessive deficit procedure. The Resolution of the European Council on the SGP was adopted on 17 June 1997. On the basis of the Resolution the Council adopted two Regulations: the "Council Regulation on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies" and the "Council Regulation on speeding up and clarifying the implementation of the excessive deficit procedure". These provisions set the framework through which Member States have committed themselves to achieving sound public finances in the medium term. Member States are committed to pursuing the medium-term objective of budgetary positions "close to balance or in surplus". The idea is to allow them to deal with normal cyclical fluctuations while keeping their general government deficit-to-GDP ratios below 3%.

In a framework of multilateral surveillance, euro area Member States are obliged to submit stability programmes to the EU Council and the European Commission. The non-participating Member States have to submit convergence programmes. Both of these contain the information needed to assess the budgetary adjustments envisaged over the medium term to reach the close to balance or in surplus position.

An essential complement to these ways of promoting stability-oriented fiscal policies is the Treaty's "no bail-out" clause. Article 103 (1) (ex Article 104b (1)) of the Treaty states: "The Community shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State (…). A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project". This clause ensures that the responsibility for repaying public debt remains national. It thus encourages prudent fiscal policies at the national level.

Further provisions contributing to fiscal discipline are the prohibitions of monetary financing of budget deficits and of any form of privileged access for the public sector to financial institutions. Article 101 (ex Article 104) of the Treaty forbids the ECB and the NCBs to provide monetary financing for public deficits using "overdraft facilities or any other type of credit facility with the ECB or with the central banks of the Member States". Article 102 (ex Article 104a) of the Treaty prohibits any measure that may establish privileged access to financial institutions for governments and Community institutions or bodies. In addition to increasing the incentives to pursue sound public finances and prudent fiscal policies, these provisions contribute to the credibility of the single monetary policy in the pursuit of price stability.

The Treaty also decrees that the EU Council – upon a recommendation from the European Commission – shall adopt Broad Economic Policy Guidelines (BEPGs) once a year. These Guidelines provide the framework for the definition of economic policy objectives and orientations for the Member States and the European Community. Insofar as all Member States face broadly the same challenges and economic policy needs, the BEPGs set out a number of general orientations that apply to all Member States. At the same time, reflecting diversity among the countries in terms of economic performance and prospects as well as structures and institutions, the BEPGs also contain country-specific recommendations. In accordance with the Treaty, the BEPGs have to respect the independence of the ECB in the pursuit of its primary objective of maintaining price stability and must not seek to influence its monetary policy.

General government gross debt

Turning to general government gross debt, for the euro area as a whole it reached a peak of 75.4% of GDP in 1996, after rising rapidly over the previous two decades. It fell slightly thereafter, to stand at 70.3% of GDP in 2000. The general government gross debt in the United States was somewhat lower, at 57.3% in 2000, while in Japan the ratio of debt to GDP was 130.4%.

2.4 External trade

Euro area economy much less open than individual euro area countries

Although the euro area economy can be significantly affected by developments in the global economy, it is far less open than the economies of the individual euro area countries. This tends to limit the impact of external economic developments and, in particular, that of movements in external prices on domestic euro area prices. However, the euro area is still more open than either the United States or Japan. Euro area exports and imports of goods and services as a share of GDP were significantly higher in 2000 than the corresponding figures for the United States and Japan (see Table 2.1).

Goods account for the largest share of extra-euro area trade

As for the composition of trade, goods account for the largest share (around 75% in 2000) of both euro area imports and euro area exports. Within the goods category, machinery and transport equipment make up almost half of exports. They also constitute the largest share of euro area goods imports (see Table 2.3). The second largest component is other manufactured articles, which has broadly the same share in both imports and exports. In 2000, chemicals accounted for 13.6% of goods exports but only 8.5% of imports, while, by contrast, the shares of raw materials and energy were considerably larger for imports than for exports. This shows that the euro area, reflecting the international division of labour and the availability of raw materials in the euro area, in net terms tends to import raw materials and intermediate goods and to specialise in exporting processed goods.

Turning to the geographical distribution of euro area trade, the United Kingdom, the United States, Switzerland and Japan are, in that order, the

External trade in goods of the euro area in 2000

Table 2.3

(share of total as a percentage)

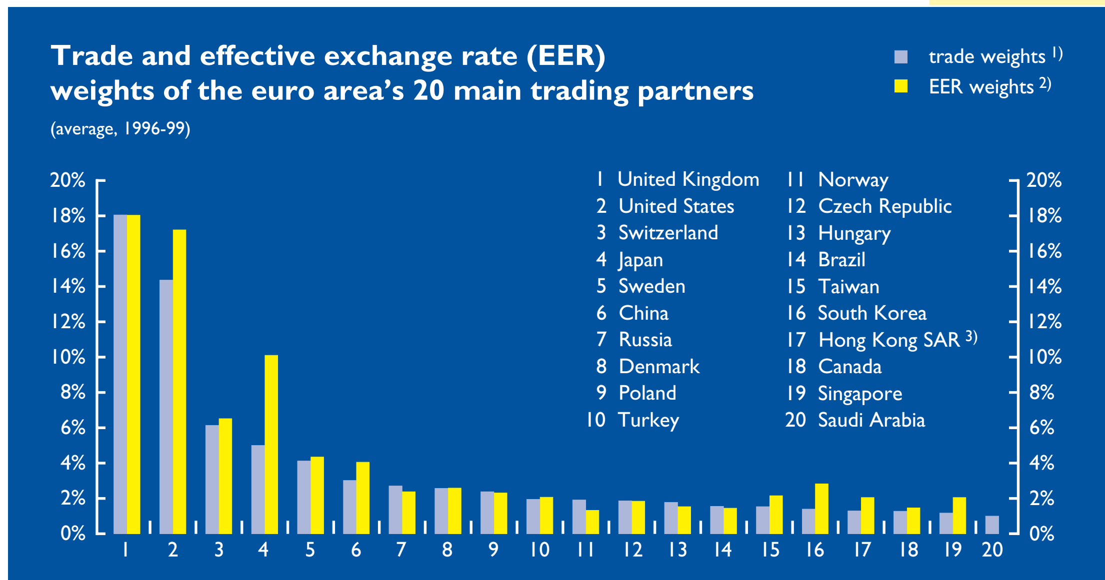
	Exports	Imports
Total	**100**	**100**
of which:		
Machinery and transport equipment	46.6	37.8
Chemicals	13.6	8.5
Raw materials	2.0	4.8
Energy	2.3	14.4
Food, drink and tobacco	6.1	5.5
Other manufactured articles	26.6	25.4
Other	2.9	3.5

Sources: Eurostat and ECB calculations.

Geographical distribution of euro area trade

largest trading partners of the euro area. Besides these economies, no other single country accounted for more than 5% of euro area trade in the period from 1996 to 1999 (see Chart 2.4). Russia and the central and eastern European countries together accounted for 12.8% of trade, while the corresponding figure for China and the rest of Asia excluding Japan was also 12.8%.

Chart 2.4



Source: ECB calculations based on Eurostat trade data.

1) Trade weights are the sum of exports and imports expressed as total of euro area (including Greece) exports and imports.

2) The weights underlying the computation of the euro EER indices are overall trade weights, i.e. a weighted average of import and double export weights, based on extra-euro area manufacturing trade. The double weighting of exports takes account of third market effects, so as to capture the competition faced by euro area exporters in foreign markets from both domestic producers and exporters from third countries.

3) Special administrative region.

It should be noted that these bilateral trade weights reflect only the trade that has taken place between euro area and non-euro area countries. They do not necessarily reflect the competition that euro area producers face in export markets from the exporters of other countries and domestic producers. These "third market effects" need to be taken into account when assessing the competitiveness of the euro area. They are included in the weights of the effective exchange rate of the euro. It is worth noting that the weights of the currencies of the United States and Japan are markedly higher in the effective exchange rate of the euro than the bilateral trade weights of these two countries (see Chart 2.4).

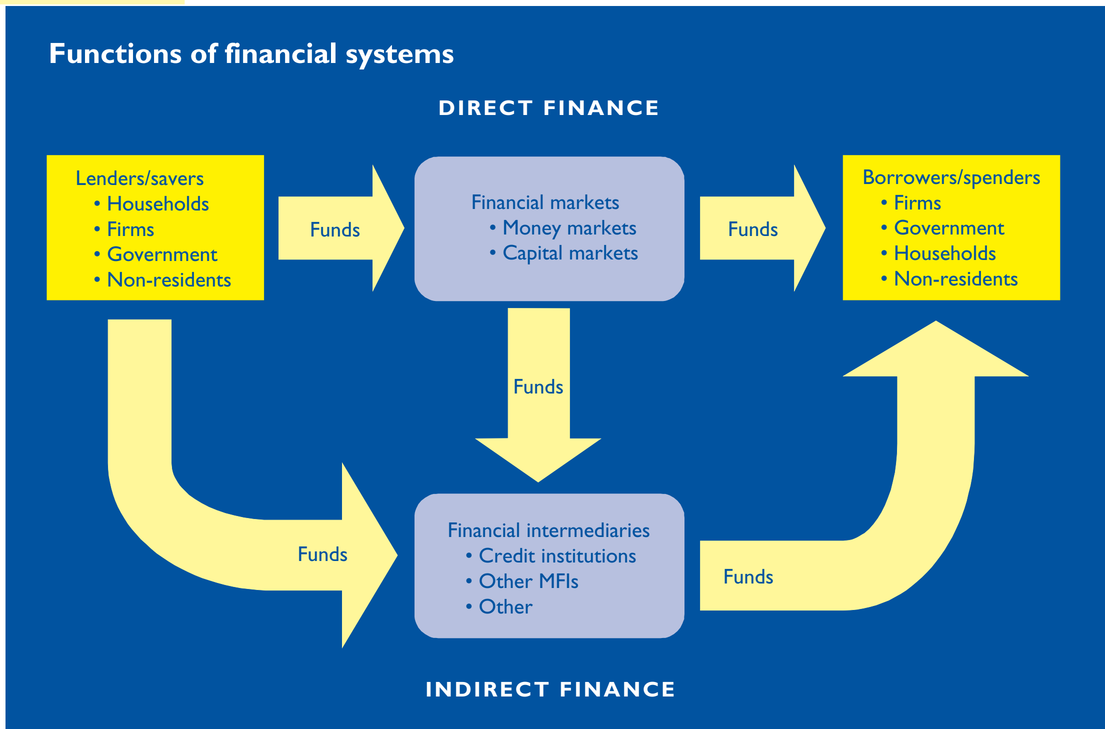
Effective exchange rate

2.5 Financial structure

Indirect and direct finance

The financial system performs the essential economic function of channelling funds from those who have saved surplus funds, because they spend less than their income, to those who have a shortage of funds, because they wish to spend more than their income. This is shown schematically in Chart 2.5. The most important lenders or savers are households, but firms, the government and foreigners sometimes also find themselves with excess funds and so lend them out. In the euro area the principal borrowers or spenders are firms and the government, but households and non-residents also borrow to finance their purchases. Funds flow from lenders to borrowers via two routes. In direct or market-based finance, the route at the top of Chart 2.5, debtors borrow funds directly from lenders in financial markets by selling

Chart 2.5



them financial instruments, also called securities, which are claims on the borrower's future income or assets. If financial intermediaries play an additional role in the channelling of funds one refers to indirect or bank-based finance (see the bottom of Chart 2.5). Financial intermediaries can be classified into credit institutions, other Monetary Financial Institutions (MFIs) and other financial intermediaries.

Before describing in more detail the financial markets where direct finance takes place and financial intermediaries which are involved in indirect finance, Table 2.4 provides an overview of the main financial assets and liabilities of the non-financial sectors in the euro area in terms of amounts outstanding as at mid-2000. The outstanding financial assets and liabilities constitute the "stocks" in the quarterly framework of financial accounts. The main financial assets (currency and deposits, securities other than shares, quoted shares and insurance technical reserves) shown in Table 2.4 amounted to €14,535 billion (around 230% of annual GDP in the euro area) in mid-2000. Securities, including quoted shares, accounted for nearly half of this figure, and currency and deposits for one-third. Insurance technical reserves, i.e. the provisions of pension funds, insurance and non-financial corporations to cover the claims of policy holders, represented one-fifth of the main financial assets covered in the table. The main liabilities (loans and securities, including quoted shares) shown in Table 2.4 amounted to €15,526 billion (250% of GDP) in mid-2000. Securities, including quoted shares, comprised more than half of the financing sources of the non-financial sectors, and loans around 45%. Most of the funding (almost 90% of the liabilities) was at maturities exceeding one year.

Main financial assets and liabilities of the non-financial sectors

2.6 Financial markets

This section introduces the main features of the money, debt and equity markets in the euro area. Box 2.2 provides an overview of some key terms relating to financial markets.

The money market

The money market plays a crucial part in the transmission of monetary policy decisions, since changes in monetary policy instruments affect the money market first (see Chapter 4). A deep and integrated money market is a precondition for an efficient monetary policy, since it ensures an even distribution of central bank liquidity and a homogeneous level of short-term interest rates across the single currency area. In the euro area, this precondition was met practically immediately from the start of Stage Three of EMU when the national money markets were successfully integrated into an efficient euro area money market.

Integration of the money market

The rapid integration of the euro area money market has also been supported by developments in the payment systems infrastructure, above all the establishment of the TARGET (Trans-European Automated Real-time Gross settlement Express Transfer) system, which allows the smooth functioning of the settlement of cross-border payments. The TARGET system interconnects the euro real-time gross settlement systems operated by the EU NCBs and

Role of the payment systems

Table 2.4 **Financial investment and financing of non-financial sectors in the euro area at mid-2000** [1]

(amounts outstanding)

Selected financial assets	EUR billions	%
Total	**14,535**	**100.0**
Currency and deposits	**4,897**	**33.7**
Currency	341	2.3
Deposits with	4,556	31.3
euro area MFIs	4,405	30.3
non-MFIs	150	1.0
Securities other than shares	**1,592**	**11.0**
Short-term	161	1.1
Long-term	1,432	9.8
Shares [2]	**4,908**	**33.8**
Quoted shares	2,952	20.3
Mutual fund shares	1,956	13.5
of which money market fund shares	221	1.5
Insurance technical reserves	**3,138**	**21.6**
Net equity of households in life insurance and pension funds reserves	2,829	19.5
Prepayments of insurance premiums and reserves for outstanding claims	309	2.1

Source: ECB.

1) Non-financial sectors comprise general government, non-financial corporations and households including non-profit institutions serving households.

2) Excluding unquoted shares.

3) Including non-profit institutions serving households.

Table 2.4

Selected liabilities	EUR billions	%
Total	**15,526**	**100.0**
Loans	**6,951**	**44.8**
a) taken from		
euro area MFIs	6,261	40.3
other financial intermediaries	690	4.4
b) granted to		
general government	885	5.7
short-term	42	0.3
long-term	844	5.4
non-financial corporations	2,994	19.3
short-term	1,088	7.0
long-term	1,905	12.3
households [3)]	3,072	19.8
short-term	274	1.8
long-term	2,798	18.0
Securities other than shares	**4,003**	**25.8**
General government	3,600	23.2
short-term	425	2.7
long-term	3,175	20.4
Non-financial corporations	403	2.6
short-term	91	0.6
long-term	312	2.0
Quoted shares		
issued by non-financial corporations	4,157	26.8
Deposits		
liabilities of central government	148	1.0
Pension fund reserves		
of non-financial corporations	267	1.7

Box 2.2

Financial markets: key terms

Financial markets can be classified according to several criteria, illustrating different essential features of these markets. One possible classification is whether the financial transaction relates to the first purchase of the issue or a trade between holders of securities (**primary or secondary markets**). In turn, the secondary market can be organised in two ways. One is to organise exchanges, where buyers and sellers of securities meet in one central location to conduct trades (**exchange-traded markets**). The other method of organising a secondary market is to have an **over-the-counter (OTC) market**, in which dealers at different locations who have an inventory of securities stand ready to buy and sell securities over the counter to anyone who is willing to accept their prices.

Another classification relates to the original maturity of the financial contract. Generally a distinction is made between the original maturity of the financial contract of below or over one year (**money or capital markets**). The money market differs somewhat from other financial markets in that it is typically a wholesale interbank market where transactions are large. Moreover, the Eurosystem, through its monetary policy operations, can influence conditions on the money market (see Chapter 4). The ECB is the monopoly supplier of central bank money and, by virtue of this monopoly, the ECB can set the refinancing conditions to credit institutions in the euro area. This, in turn, influences the conditions at which credit institutions and other money market participants transact in the euro area money market.

A final commonly used classification is between the form of the financial instrument (**equity or debt market**). The main distinction between equity and debt is that equity does not have to be repaid, whereas debt is a financial claim which usually does have to be repaid (in specific amounts at a certain interest rate).

Finally, **derivatives** are financial contracts, the value of which derives from underlying securities prices, interest rates, foreign exchange rates, market indices or commodity prices. The basic classes of derivatives are futures, options, swaps and forward rate agreements. For example, the holder of a call (put) option has the right, but not the obligation, to buy (sell) a financial instrument (e.g. a bond or share) at a given price at a specified time in the future. Many other derivatives contracts have been developed by combining the basic categories. Derivatives markets are central to the functioning of the financial markets, because they improve the pricing and allocation of financial risks.

the ECB payment mechanism. The direction, management and control of TARGET fall within the competence of the Governing Council of the ECB.

Unsecured parts of the money market

There are various "cash" segments in the euro area money market. The most important of these segments is the unsecured market. The unsecured market is mainly devoted to the management of the liquidity needs of banks and, hence, the unsecured transactions are strongly concentrated on the overnight maturity. There are two important reference rates for the unsecured money market, the EONIA (euro overnight index average) and the EURIBOR (euro interbank offered rate), which together provide uniform price references for maturities from overnight to one year.

The other main cash segments of the money market are the repo market and the market for swaps against foreign currencies. These markets are known as secured markets since lending is done against assets acting as collateral. The importance of the repo market varies across the euro area, reflecting the fact that underlying collateral remains somewhat fragmented among the euro area countries. The repo transactions are mainly concentrated on maturities of up to one month. The transactions of swaps against foreign currencies are usually done with maturities of over three months.

Secured parts of the money market

In addition to the cash segments mentioned above, the euro area money market also includes derivatives segments. Interest rate swap markets and futures markets are the most important derivatives markets. The most active instruments in these markets are EONIA swaps and EURIBOR futures.

Derivatives markets

Looking at the development of different segments of the euro area money market, the unsecured market has seen the most rapid development as it has a high degree of activity and liquidity. Unsecured transactions accounted for around half of the total cash market turnover in the euro area in 2000. The repo market accounted for around one-third of the total cash market turnover in the euro area, which made considerable progress in 1999 and 2000 partly due to a strong increase in cross-border repo transactions. However, several technical factors, such as differences in laws, documentation and traditions across the euro area, seemed to have prevented the full development of an area-wide repo market until the end of 2000. Among the derivatives segments, the most rapid development in 1999 and 2000 took place in the EONIA swap market. This very active, deep and liquid market has no equivalent outside the euro area.

Development of the money market in 1999 and 2000

Debt securities markets

The money market in a broader sense also includes the market for short-term securities. The amount outstanding of short-term debt securities issued by euro area residents totalled almost 10% of GDP at the end of 2000, which was almost unchanged compared with 1990 (see Table 2.5). The relative importance of the types of issuer did, however, change during the 1990s. In 1990 the most important issuer was the public sector (7.3% of GDP), while in 2000 the amount outstanding of euro-denominated short-term debt securities issued by the private sector, notably MFIs, was larger than that issued by the public sector (5.3% of GDP as compared with 3.8% of GDP).

Lower relative importance of short-term debt securities…

Of more importance are the euro-denominated long-term debt securities issued by euro area residents. The amount outstanding of these debt instruments equalled 92% of GDP at the end of 2000, having increased from 52% of GDP at the end of 1990 (see Table 2.6). The public sector (central government and other general government) is the most important long-term debt issuer in terms of volume. At the end of 2000 the amount outstanding of euro-denominated long-term debt securities issued by the public sector was almost 50% of GDP. The second largest group of issuers in terms of the amount outstanding was the MFI sector (34% of GDP in 2000). The amount outstanding of euro-denominated long-term debt securities issued by non-financial corporations and non-monetary financial corporations was around 8% of GDP, but it has grown relatively quickly since the start of Stage Three of EMU.

…when compared with long-term debt securities

Table 2.5

Amounts oustanding of euro-denominated short-term debt securities issued by euro area residents

(end of year, in EUR billions and as a percentage of GDP in square brackets)

	1990		1995		1998		1999		2000	
Total	469.3	[10.7]	606.1	[11.4]	532.7	[9.1]	585.5	[9.6]	579.0	[9.0]
of which issued by:										
MFIs	99.6	[2.3]	167.7	[3.2]	165.0	[2.8]	249.3	[4.1]	244.0	[3.8]
Non-monetary financial corporations	4.2	[0.1]	9.6	[0.2]	8.9	[0.2]	6.0	[0.1]	4.5	[0.1]
Non-financial corporations	44.4	[1.0]	33.7	[0.6]	46.3	[0.8]	66.8	[1.1]	87.0	[1.4]
Public sector	321.1	[7.3]	395.0	[7.4]	312.5	[5.3]	263.3	[4.3]	244.3	[3.8]

Source: ECB.

Debt securities financing in the euro area is small compared with the United States

Financing through the issuance of debt securities is smaller in the euro area than in the United States and Japan. The amounts outstanding at the end of 2000 were 101% of GDP in the euro area, compared with 147% and 127% of GDP in the United States and Japan respectively (see Table 2.7). Looking at the non-financial corporate sector, the amount outstanding of debt securities issued by non-financial corporations in the euro area was 6% of GDP at the end of 2000, while it totalled 25% and 16% of GDP in the United States and Japan respectively.

Some segments in euro area debt securities market little developed

Despite the significant growth in the euro area debt securities market, some market segments, such as those for debt with a low credit rating or unrated debt, have remained relatively underdeveloped. Compared with the United States, few euro area corporations had credit ratings in 2000, and this restricted their access to the corporate bond market.

Table 2.6

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

(end of year, in EUR billions and as a percentage of GDP in square brackets)

	1990		1995		1998		1999		2000	
Total	2,303.7	[52.4]	4,127.7	[77.7]	5,093.3	[86.8]	5,536.6	[90.5]	5,897.1	[91.7]
of which issued by:										
MFIs	960.7	[21.8]	1,467.1	[27.6]	1,849.6	[31.5]	2,014.4	[32.9]	2,175.7	[33.8]
Non-monetary financial corporations	52.8	[1.2]	83.2	[1.6]	122.6	[2.1]	194.8	[3.2]	251.3	[3.9]
Non-financial corporations	151.5	[3.4]	223.7	[4.2]	225.1	[3.8]	252.0	[4.1]	287.6	[4.5]
Public sector	1,138.7	[25.9]	2,353.6	[44.3]	2,896.1	[49.3]	3,075.8	[50.3]	3,182.4	[49.5]

Source: ECB.

Table 2.7

Amounts outstanding of debt securities denominated in national currency issued by residents in the euro area, the United States and Japan at end-2000

(as a percentage of GDP)

	Total	Issued by financial corporations	Issued by non-financial corporations	Issued by general government
Euro area	100.7	41.5	5.9	53.3
United States [1)]	146.9	85.7	24.6	38.7
Japan	126.5	16.1	16.0	96.0

Sources: ECB and BIS.

1) Securities guaranteed by the government such as securities issued by Government-Sponsored Enterprises or Federally Related Mortgage Pools, which amounted to 43.6% of GDP at end-2000 are classified as being issued by financial corporations.

Equity market

Euro area stock market capitalisation growing, but smaller than in the United States

Turning to the equity market, a commonly used indicator of its importance is the market capitalisation of stocks traded in terms of GDP. The euro area stock market capitalisation increased from 21% of GDP at the end of 1990 to 93% of GDP at the end of 2000 (see Table 2.8). Nevertheless, it remained significantly smaller than in the United States and the gap between stock market capitalisation in terms of GDP in the United States and the euro area even widened from around 30 percentage points in 1990 to 60 percentage points in 2000. By contrast, in Japan stock market capitalisation declined from 87% of GDP in 1990 to 68% of GDP in 2000. It should be noted that stock price developments had a significant impact on these ratios.

Number of companies listed on euro area stock markets growing

Another indication of the importance of the equity market is provided by statistics on the number of listed companies. In the euro area this number grew from 4,276 at the end of 1990 to 6,112 at the end of 2000 (see Table 2.9). As a comparison, the number of listed companies in the United States and Japan at the end of 2000 was 7,657 and 2,096 respectively.

Table 2.8

Stock market capitalisation in the euro area, the United States and Japan

(end of year, as a percentage of GDP)

	1990	1995	1998	1999	2000
Euro area	21	29	61	90	93
United States	54	94	145	180	153
Japan	87	72	56	91	68

Source: International Federation of Stock Exchanges.

Table 2.9 **Number of domestic and foreign companies listed on stock markets in the euro area, the United States and Japan**
(end of year)

	1990	1995	1998	1999	2000
Euro area	4,276	3,756	4,775	5,453	6,112
United States	6,765	7,369	7,750	7,429	7,657
Japan	1,752	1,865	1,890	1,935	2,096

Source: International Federation of Stock Exchanges.

Increasing integration of euro area stock markets

A further difference between the euro area equity market and equity markets in the United States and Japan is that in the latter countries trading is concentrated at one or two exchanges. In the euro area, there are generally one or more exchanges in each country. Since the introduction of the euro there have been many initiatives to form alliances or merge the activities of stock exchanges of individual euro area countries. Stock market participants also increasingly seem to be taking into account the economic factors common to the euro area as a whole. One clear indication of the increasing integration of euro area stock markets is the development of a range of euro area-wide stock market indices, such as the Dow Jones EURO STOXX index.

2.7 Financial intermediaries

Credit institutions and other Monetary Financial Institutions (MFIs)

Definition of credit institutions and MFIs

The main financial intermediaries in the euro area are credit institutions. Credit institutions are clearly defined in two Banking Co-ordination Directives[1] and are subject to common EU-wide supervisory standards. Credit institutions are the counterparties for central bank monetary policy operations (see Chapter 4). Owing to the fact that they grant credit to households and firms, inter alia on the basis of credit received from the central bank, they are crucial to the transmission of monetary policy impulses to the economy (see Section 3.2). The term "Monetary Financial Institution" was created because an increasing number of non-credit institutions, notably money market funds[2], are performing activities and offering products which were traditionally the preserve of banks.

Number of MFIs declined owing to financial consolidation

Credit institutions accounted for 82% of all euro area MFIs at the end of 2000 (see Table 2.10). Money market funds were the second largest MFI category. At the end of 2000 there were 9,096 MFIs in the euro area. This figure reflects the large number of savings and co-operative banks – often operating only at a local level – and specialised credit institutions in several

1 A "credit institution" refers to any institution falling under the definition contained in Banking Co-ordination Directives 77/780/EEC of 12 December 1977 and 89/646/EEC of 30 December 1989, i.e. "an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credit for its own account".

2 Money market funds are defined as collective investment undertakings of which the units are, in terms of liquidity, close substitutes for deposits and which primarily invest in money market instruments and/or in other transferable debt instruments with a residual maturity of up to and including one year, and/or in bank deposits, and/or which offer a rate of return approaching the interest rates on money market instruments.

countries. The number of MFIs declined markedly between 1998 and 2000, reflecting the ongoing consolidation process in the European banking industry. The trend towards consolidation in the credit institution sector is a response to changing market conditions, driven by a number of factors, such as technological developments, deregulation, liberalisation and globalisation. The introduction of the euro has probably been fuelling these developments by creating more transparency across national borders.

Aggregated and consolidated balance sheet of MFIs

The ECB and the NCBs collect monthly and quarterly statistics from the MFIs in the euro area and compute both an aggregated and a consolidated MFI balance sheet at the euro area level. The aggregated balance sheet of the MFI sector is the sum of the harmonised balance sheets of all the MFIs resident in the euro area. The aggregated balance sheet presents information on inter-MFI positions on a gross basis. It includes cross-border inter-MFI activities both within the euro area and with regard to the rest of the world. This information is useful for assessing the integration of financial systems and the importance of the interbank market. The consolidated balance sheet of the MFI sector is obtained by netting positions between MFIs in the euro area on the aggregated balance sheet. The consolidated balance sheet provides the basis for the regular analysis of monetary and credit developments in the euro area, including monetary aggregates (see Box 2.3).

Deposits and loans are the most important MFIs balance sheet items

Chart 2.7 shows the composition of the consolidated balance sheet of the euro area MFIs including the Eurosystem at the end of 2000. Deposits accounted for 43% of total liabilities, while other important liability items were external liabilities and debt securities, which amounted to 17% and 13% respectively of total MFI liabilities. Loans represented the largest share of total assets (68% at the end of 2000). Lending in the form of debt securities, shares and other equity covered 15% of total MFI assets.

Bank deposits and loans in the euro area, the United States and Japan

Bank deposits in the euro area amounted to 79% of GDP at end-2000 (see Table 2.12). This was more than in the United States (38% of GDP) and less than in Japan (111% of GDP). At the same time, bank loans in the euro area totalled 108% of GDP, while for the United States and Japan this ratio was 51% and 104% respectively. Moreover, in both the euro area and the United States bank loans to non-financial corporations were around 40% of GDP at the end of 2000. By contrast, bank loans to non-financial corporations in Japan amounted to 73% of GDP at the end of 2000.

Table 2.10

Number of euro area Monetary Financial Institutions
(end of year)

	1998	1999	2000
Credit institutions	8,320	7,898	7,476
Money market funds	1,516	1,526	1,600
Central banks and other institutions	20	20	20
All MFIs	9,856	9,444	9,096

Source: ECB.

Box 2.3

Monetary aggregates

The starting-point for the definition of euro area monetary aggregates is the consolidated balance sheet of the MFI sector. In general, the appropriate definition of a monetary aggregate largely depends on the purpose for which the aggregate is intended. Given that many different financial assets are substitutable, and that the nature and characteristics of financial assets, transactions and means of payment are changing over time, it is not always clear how money should be defined and which financial assets belong to a certain definition of money. For these reasons, central banks usually define and monitor several monetary aggregates.

The ECB's definitions of euro area monetary aggregates are based on a harmonised definition of not only the money-issuing sector and the money-holding sector, but also the categories of MFI liabilities. The money-issuing sector comprises MFIs resident in the euro area. The money-holding sector includes all non-MFIs resident in the euro area excluding the central government sector. Even though the central government sector is not considered to be part of the money-issuing sector, central government liabilities of a monetary nature are included as a special item in the definition of monetary aggregates because they are highly liquid.

Based on conceptual considerations and empirical studies, and in line with international practice, the Eurosystem has defined a narrow (M1), an "intermediate" (M2) and a broad monetary aggregate (M3). These aggregates differ with regard to the liquidity of the assets they include. Table 2.11 below sets out the definitions of euro area monetary aggregates.

M1 includes currency, i.e. banknotes and coins, as well as balances that can immediately be converted into currency or used for cashless payments, such as overnight deposits.

M2 comprises M1 and, in addition, deposits with an agreed maturity of up to two years or redeemable at a period of notice of up to three months. These deposits can be converted into components of narrow money, but some restrictions may apply, such as the need for advance notification, penalties and fees.

M3 comprises M2 and marketable instruments issued by the resident MFI sector. These marketable instruments are repurchase agreements, money market fund shares/units and money market paper and debt securities

Table 2.11

Definitions of euro area monetary aggregates

Liabilities[1]	M1	M2	M3
Currency in circulation	X	X	X
Overnight deposits	X	X	X
Deposits with an agreed maturity of up to two years		X	X
Deposits redeemable at a period of notice of up to three months		X	X
Repurchase agreements			X
Money market fund shares/units and money market paper			X
Debt securities with a maturity of up to two years			X

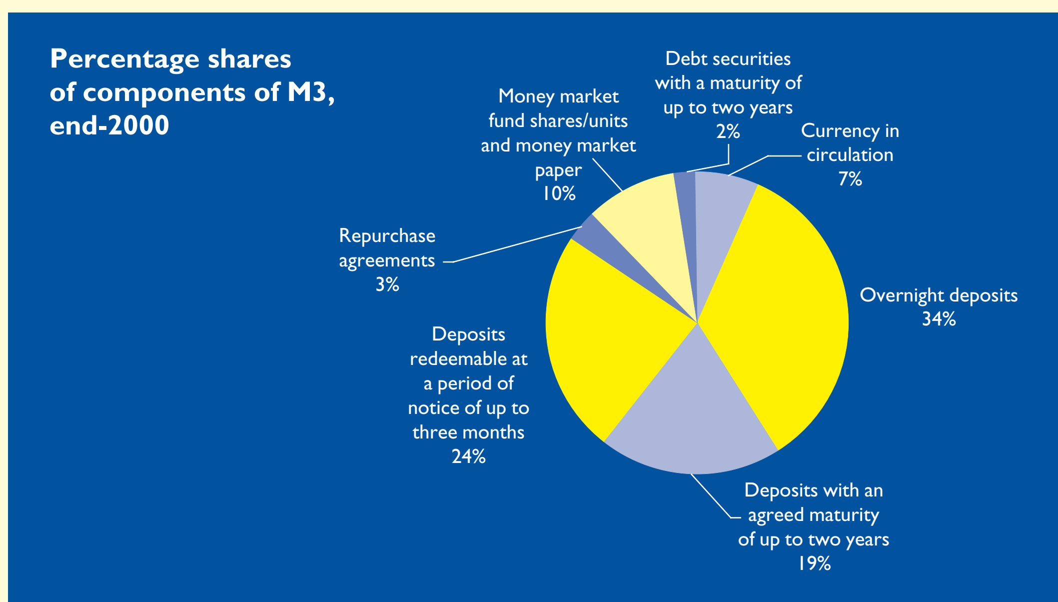
1) *Liabilities of the money-issuing sector and central government liabilities with a monetary character held by the money-holding sector.*

with a maturity of up to two years. A high degree of liquidity and price certainty make these instruments close substitutes for deposits. As a result of their inclusion, broad money is less affected by substitution between various liquid asset categories than narrower definitions of money and is more stable (see also Chapter 3).

Holdings by euro area residents of liquid assets denominated in foreign currencies can be close substitutes for euro-denominated assets. Therefore, the monetary aggregates include such assets if they are held with MFIs located in the euro area.

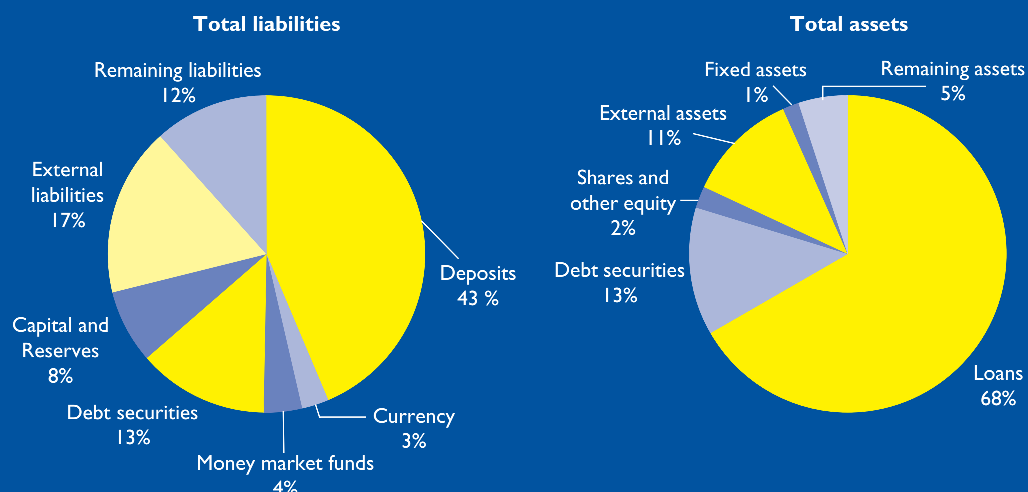
Chart 2.6 illustrates the relative shares of the components of M3 in December 2000. Overnight deposits accounted for the largest share, namely 34% of M3. The share in M3 of deposits redeemable at a period of notice of up to three months was 24%, and that of deposits with an agreed maturity of up to two years was 19%. Money market fund shares/units and money market paper amounted to 10% of M3, and currency in circulation was 7%. Finally, repurchase agreements and debt securities issued with an initial maturity of up to two years accounted for 3% and 2% of M3 respectively.

Chart 2.6



Source: ECB.

Chart 2.7



Source: ECB.

Table 2.12 Bank deposits and loans in the euro area, the United States and Japan at end-2000

(as a percentage of GDP)

	Bank deposits	Bank loans	Bank loans to non-financial corporations
Euro area	79.1	107.7	41.8
United States	37.6	50.8	38.2
Japan	110.7	103.8	72.8

Sources: ECB, Federal Reserve and Bank of Japan.

Still minor role of non-MFIs

Other financial intermediaries

Indirect finance to the public and private sectors is not only provided by MFIs, but also by other financial intermediaries such as insurance corporations and pension funds, financial auxiliaries[3], mutual funds, securities and derivatives dealers, and financial corporations engaged in lending. One of the key

3 *Financial auxiliaries comprise all financial corporations and quasi-corporations which are principally engaged in auxiliary financial activities, i.e. activities closely related to financial intermediation, but which are not financial intermediation itself, for instance, insurance, loan and securities brokers.*

differences compared with credit institutions is the lack of deposits on the liabilities side of the balance sheets of these institutions. Available estimates show that these other financial intermediaries became increasingly active in the 1990s but still play a minor role compared with MFIs. At the end of 1999 the assets of insurance companies, mutual funds and pension funds in the euro area were equivalent to 41% of GDP, while the assets of MFIs equalled 253% of GDP. Nevertheless, the total amount of assets of these other financial intermediaries in the euro area has grown substantially.

3 The ECB's monetary policy strategy

This chapter describes the ECB's monetary policy strategy, i.e. the ECB's general approach to achieving its primary objective of maintaining price stability. The introductory section focuses on this objective. The second section summarises some characteristic features of the monetary policy transmission mechanism and their implications for the conduct of monetary policy. The strategy is explained in more detail in the third section, while the final section addresses the communication role of the ECB's strategy.

3.1 Price stability – the primary objective of the single monetary policy

The benefits of price stability

The primary objective of the ECB, and of the single monetary policy for which it is responsible, is defined by the Treaty as the maintenance of price stability (see Chapter 1). The Treaty assigns this objective to the ECB for good reason. Decades of practical experience and a large number of economic studies suggest that monetary policy will contribute most to improving economic prospects and raising the living standards of citizens by maintaining price stability in a lasting way. There are several ways in which price stability – in the sense of avoiding both prolonged inflation and prolonged deflation – contributes to achieving high levels of economic activity and employment.

Price stability supports higher living standards by contributing to…

First, price stability allows changes in relative prices to be more easily observed, since they are not obscured by fluctuations in the overall price level. As a result, firms and consumers can make better informed consumption and investment decisions, thus allowing the market to allocate resources more efficiently. By helping the market to guide resources to their most productive uses, price stability raises the productive potential of the economy.

…improving the transparency of relative prices, …

Second, if investors are reassured that price stability will be maintained in the future, they will not demand an "inflation risk premium" to compensate them for the risks associated with holding assets over the longer term. By reducing such risk premia in the real interest rate, monetary policy can contribute to the allocative efficiency of the capital market and give incentives to invest. This in turn fosters economic growth.

…reducing inflation risk premia in interest rates, …

Third, the credible maintenance of price stability also makes it less likely that individuals and firms will divert resources from productive uses in order to hedge against inflation. For example, in a high inflation environment there is an incentive to stockpile real goods since they retain their value better than money or some financial assets in such circumstances. Putting goods into stockpiles is not an efficient investment decision, and therefore hinders economic growth.

…avoiding unnecessary hedging activities, …

Fourth, tax and welfare systems can create perverse incentives which distort economic behaviour. In most cases, these distortions are exacerbated by inflation or deflation. Price stability eliminates the real costs entailed when inflation exacerbates the distortionary impact of tax and social security systems.

…reducing distortions of tax systems…

…and preventing arbitrary redistributions of wealth

Fifth, maintaining price stability prevents the considerable and arbitrary redistribution of wealth and income that arises in inflationary as well as deflationary environments. An environment of stable prices thereby helps maintain social cohesion and stability. As several examples in the twentieth century have demonstrated, high rates of inflation or deflation often create social and political instability.

All these arguments suggest that a central bank which maintains price stability makes a substantial contribution to the achievement of broader economic goals, such as higher standards of living, high levels of economic activity and better employment prospects. This conclusion is supported by economic evidence which – for a wide variety of countries, methodologies and periods – demonstrates that economies with lower inflation appear, on average, to grow more rapidly in real terms in the long run.

The ECB's definition of price stability

The ECB has defined price stability in quantitative terms

Although it clearly establishes the maintenance of price stability as the primary objective of the ECB, the Treaty does not give a precise definition of what is meant by price stability. In order to specify this objective more precisely, the Governing Council of the ECB announced the following quantitative definition in 1998: "Price stability shall be defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%".[1]

Price stability is to be maintained over the medium term

At the same time, the Governing Council also stated that price stability "is to be maintained over the medium term". This reflects the consensus that monetary policy cannot fine-tune developments in prices or inflation over short horizons of a few weeks or months. Changes in monetary policy only affect prices with a time lag, and the magnitude of the eventual impact is uncertain (see Section 3.2). This implies that monetary policy cannot offset all unanticipated disturbances to the price level. Some short-term volatility in inflation is therefore inevitable.

This definition adds to transparency and accountability and anchors inflation expectations

The Governing Council announced a quantitative definition of price stability for a number of reasons. First, by clarifying how the Governing Council interprets the goal it has been assigned by the Treaty, the definition helps to make the monetary policy framework easier to understand (i.e. it makes monetary policy more transparent). Second, the definition of price stability provides a yardstick against which the public can hold the ECB accountable. Deviations of price developments from price stability can be identified, and the ECB is required to provide an explanation for sustained deviations from this definition and to clarify how price stability will be re-established within an acceptable period of time. Finally, the definition is intended to guide expectations of future price developments. The ECB's overriding commitment to maintain price stability should give the public and financial markets good reason to expect that in the medium term inflation will lie within the range deemed compatible with price stability. Stabilising longer-term inflation expectations in this way should help to prevent firms, trade unions and

1 *See the ECB press release entitled "A stability-oriented monetary policy for the ESCB", dated 13 October 1998.*

individual agents involved in the wage and price-setting process from incorporating higher rates of inflation into their decisions, which, in turn, would make the maintenance of price stability more difficult. The definition of price stability therefore helps to build up credibility and increase the effectiveness of the single monetary policy.

Features of the definition:

The definition of price stability has a number of noteworthy features:

"Increases… below 2%"

First, neither prolonged inflation nor prolonged deflation is consistent with the definition. The phrase "below 2%" clearly delineates the upper boundary for the rate of measured HICP inflation that is consistent with price stability. At the same time, the use of the word "increase" in the definition shows that deflation, i.e. declines in the level of the HICP, is incompatible with price stability.

"HICP"

Second, the definition identifies a specific price index – namely the HICP for the euro area – as the one to be used to assess whether price stability has been achieved and maintained. This index has been harmonised across the various countries in the euro area. Its use is consistent with the public's usual focus on consumer prices. The HICP covers a wide range of consumer expenditure (see Box 3.1).

Taking into account a potential measurement bias

Third, the definition implicitly acknowledges the potential existence of imperfections in the measurement of the price level using the HICP. A number of economic studies have identified biases in the measurement of consumer price indices (CPIs). These mainly arise from changing spending patterns and improvements in the quality of the goods and services included in the basket used to define a particular index. Such measurement biases cannot always be fully corrected in the construction of consumer price indices. They typically cause CPIs to overstate slightly the true rate of inflation. The HICP for the euro area is a relatively new concept and long runs of backdata do not exist. As yet there is no conclusive evidence as to the magnitude of a potential bias in the HICP. Eurostat, the European Commission agency responsible for this area of statistics at the EU level, has attempted to avoid a measurement bias in the HICP by setting appropriate statistical standards for the national statistical institutes (e.g. for revisions of expenditure weights in the index at appropriate time intervals and for the inclusion of new goods). The possible existence of a small positive measurement bias in HICP inflation and the uncertainty regarding its magnitude explain why the ECB did not give a specific value for the lower boundary of the definition. By setting an upper boundary of 2%, the ECB has left in place a margin that encompasses all plausible estimates of the HICP measurement bias.

Safety margin against deflation

Fourth, by implicitly making the HICP measurement bias the lower boundary of the range deemed consistent with price stability, the ECB's definition allows only positive rates of "true" inflation. It thus creates a "safety margin" which helps to ensure that negative rates of "true" inflation are avoided. Avoiding deflation is important because once it occurs, deflation may become entrenched as a result of the threat it poses to financial stability.

Focus on the euro area as a whole

Fifth, price stability is assessed using the HICP for the euro area, indicating that decisions regarding the single monetary policy aim at price stability in the euro area as a whole.

Box 3.1

Construction and features of the HICP

The Governing Council of the ECB has defined price stability in terms of the Harmonised Index of Consumer Prices (HICP) for the euro area. The conceptual work on the harmonisation of national consumer price indices has been carried out by the European Commission (Eurostat) in close liaison with the national statistical institutes. As key users, the European Monetary Institute (EMI) and, subsequently, the ECB have been closely involved in this work.

The HICP data released by Eurostat are available from January 1995 onwards. Estimated backdata, which are not fully comparable with HICP data from 1995, are available for the overall HICP and its five main components from 1990. Four of these components relate to goods prices. Together these accounted for 61.9% of the HICP, while the services component accounted for 38.1% (see Table 3.1). The main idea behind this breakdown is to identify different economic factors. For example, developments in the energy component are closely related to oil price movements. Food prices are divided into processed and unprocessed foods, because prices for the latter are influenced by factors such as weather conditions and seasonal patterns with less of an impact on processed food prices.

Table 3.1
Weights of the main HICP components applicable for 2001

Overall index	100.0
Goods prices	61.9
Unprocessed food	8.2
Processed food	12.3
Non-energy industrial goods	32.1
Energy	9.5
Services	38.1

Source: Eurostat.

The harmonisation measures introduced for the HICP in the different countries have been based on several EC Regulations and Guidelines agreed with the Member States. They concern – inter alia – the coverage of consumer spending, initial standards for the procedures of quality adjustment and common rules for the treatment of new goods and services. "Initial" refers to the fact that some further harmonisation is foreseen in several areas. Moreover, a detailed harmonised classification has been agreed for sub-indices, allowing a consistent comparison of price developments in detailed consumer expenditure sub-groups across the euro area. Rules have been established for the frequency with which the commodity weights in HICPs should be revised. In January 2000 and January 2001 important steps were taken towards further harmonisation, improving the comparability of HICP calculation methods between countries and also extending the coverage of consumer expenditure. The treatment of owner-occupiers' housing costs, the only significant item not yet included in the index, was under discussion in Eurostat's statistical working group in 2001.

The ECB's definition of price stability is in line with the definitions used by most NCBs in the euro area prior to the transition to Monetary Union. Moreover, when adopting the broad economic policy guidelines in July 1995 the EU Council (ECOFIN) indicated that a value of 2% would be the maximum rate of inflation compatible with price stability. It should be emphasised that the ECB's definition is intended to be a lasting quantification of the primary objective of the single monetary policy.

Lasting quantification of the primary objective

3.2 The transmission mechanism of monetary policy

As the Governing Council is responsible for taking monetary policy decisions aimed at the maintenance of price stability, it is crucial that the ECB develops a view about how monetary policy affects developments in the price level, given the state of the economy. The process through which monetary policy decisions affect the economy in general, and the price level in particular, is known as the transmission mechanism of monetary policy. It is well established, both theoretically and empirically, that any monetary policy action takes considerable time to affect the economy and that the precise impact is difficult to estimate. In other words, the impact of monetary policy on prices is subject to long, variable and uncertain lags.

Definition of the transmission mechanism

The role and limitations of monetary policy

In the long run, monetary policy determines the nominal value of goods and services – that is the general price level. Movements in the price level indicate how much the purchasing power of money has changed over time. Related to this finding is the assertion – which is generally accepted in the economics profession – that inflation is ultimately a monetary phenomenon. In other words, prolonged periods of high monetary growth are typically associated with high inflation. This relationship has been confirmed in a very large number of economic studies, covering various periods, countries and datasets. In this respect, the "neutrality" of money is a general principle underlying standard economic thinking. It states that changes in the money supply can in the long run only have an impact on nominal and not on real variables, i.e. changes in the money supply will have no long-run effect on real output, unemployment or real interest rates. Real income is in the long run essentially determined by supply-side factors (e.g. technology, population growth, the flexibility of markets and the efficiency of the institutional framework of the economy). Monetary policy can therefore only contribute to long-run growth by maintaining price stability (see Section 3.1). However, monetary policy decisions can influence real variables in the short term.

Inflation is ultimately a monetary phenomenon

These key characteristics of monetary policy transmission represent the constraints within which any central bank, including the ECB, must operate in its pursuit of price stability. The effects of monetary policy on real income and the price level are reflected in the way the Treaty has allocated objectives and responsibilities to different policy-making authorities. Since monetary policy influences the price level over the medium term, price stability is a feasible objective for the single monetary policy. By contrast, assigning

Assignments of the Treaty

monetary policy an objective for real income or employment would have been misguided, since monetary policy has very limited scope to have a lasting influence on real variables. Indeed, only through the pursuit of price stability can monetary policy have positive effects on economic growth in the long run. It is the task of fiscal and structural policies – but also of those involved in the wage-bargaining process – to enhance the growth potential of the economy.

Channels of monetary policy transmission

The transmission process…

The preceding section outlined in general terms the impact of monetary policy on a number of key macroeconomic variables. However, it is also important to understand how monetary policy exerts these effects, since a number of transmission channels exist. They are set out in a simplified, schematic form in Chart 3.1.

…starts with a change in official interest rates…

The (long) chain of cause and effect linking monetary policy decisions with the price level starts with a change in ECB interest rates, specifically the rates offered on the main refinancing operations and on the standing facilities (see Chapter 4 for a detailed description of the Eurosystem's monetary policy operations).

…which impact on money market conditions…

The banking system demands money issued by the central bank (known as "base money") to meet the demand for currency in circulation, to clear interbank balances and to meet the requirements for the minimum reserves that have to be deposited with the central bank. Given its monopoly over the creation of base money, the central bank is in a position to exert a dominant influence on money market conditions and thereby steer money market interest rates. Changes in money market rates in turn affect other market interest rates, albeit to varying degrees.

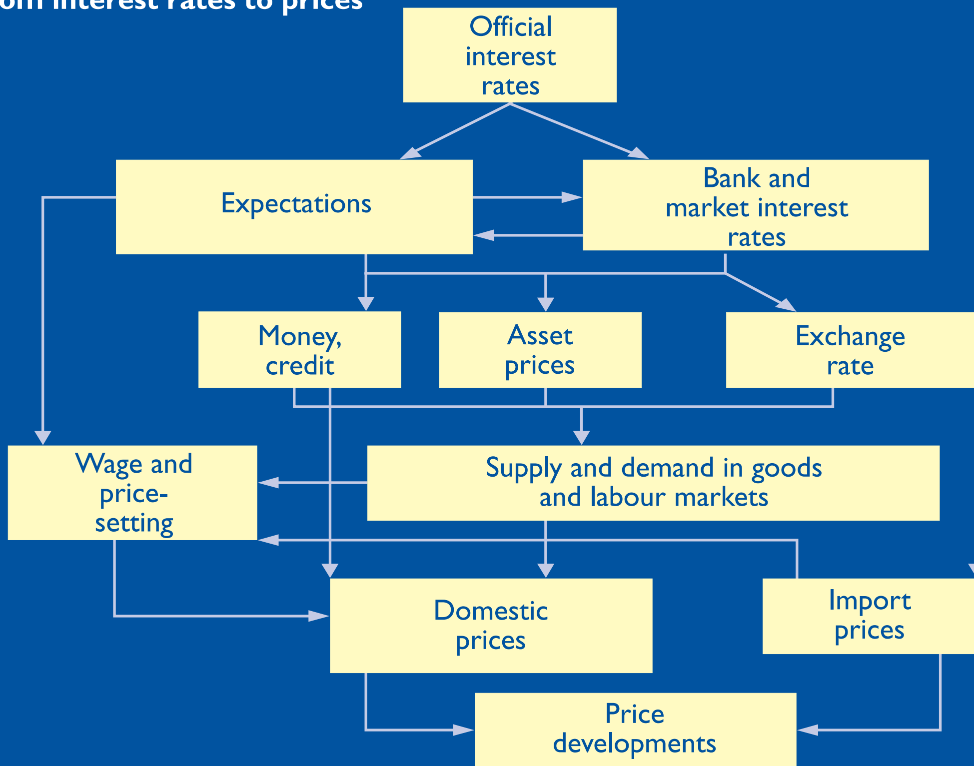
…and influence expectations

The announcement and implementation of monetary policy decisions can affect expectations about the future course of monetary policy – and this in turn has an influence on longer-term interest rates, inflationary expectations and wage and price-setting, as well as asset prices and the exchange rate.

The role of money

As stated above, the level of output in the long run is independent of the stock of money. Therefore, excessive monetary growth must ultimately lead to inflation. In simple terms, if there is "too much money chasing too few goods", the general level of prices will eventually have to rise, because private agents will want to spend the excess balances at some point. While this description is obviously a very stylised and simplified account of the mechanisms involved, it provides the essence of a view of monetary transmission where attempts by economic agents to reduce excessive holdings of money lead to greater demand for goods and thus to higher prices to clear the market. High money growth may also directly influence inflationary expectations and therefore also price developments. Similarly, low monetary growth may lead to deflationary expectations and price developments. In addition, money growth may be a reflection of current demand pressures in the economy, making money a good summary indicator of economic developments. For all these reasons, developments in monetary aggregates

Chart 3.1



contain useful information for monetary policy and can show good leading indicator properties with regard to future price developments. These properties are one important reason for assigning a prominent role to money in the conduct of monetary policy, even if the precise structure of the transmission mechanism is a matter of some uncertainty.

The role of credit

Developments in credit can also play an important role in the transmission process, since the availability and cost of credit are an important determinant of corporate investment decisions and consumer expenditure decisions, and therefore of overall demand conditions. If firms are unable to obtain credit, they have to turn to internal finance, which is often insufficient to fund large projects. Therefore, variations in the availability of credit as a result of changes in monetary policy may act as an important channel of transmission.

Changes in asset prices and yields…

Changes in monetary policy and/or expectations of future changes in monetary policy affect financial asset prices and yields. These in turn exert an influence on the saving, spending and investment decisions of households and firms, and ultimately on the demand for goods and services in the euro area economy. For example, all other things being equal, lower interest rates

tend to make it more attractive for households to spend their current income rather than save it, since expected returns on savings are diminished. Longer-term interest rates may be especially important since they have a maturity which matches the horizon of many corporate investment and households' saving decisions, such as saving for retirement.

…influence consumption and spending behaviour, …

As a consequence of these changes in spending and saving behaviour, the level of domestic demand for goods and services relative to domestic supply will change. When demand exceeds supply, all other things being equal, upward pressures on prices emerge.

…wage and price-setting…

Of course, the cost of inputs to production also influences price developments. Changes in wage levels and productivity play a significant role here. Therefore, monetary policy also has an impact on the price level through its effects on wage formation and the setting of intermediate goods prices. Its effects on inflation expectations are important in this respect: if monetary policy can make its primary objective of price stability credible, inflation expectations will remain firmly anchored at the low level defined as price stability, and wage and price-setting will remain in line with this objective. If credibility is lost, inflation expectations cease to be anchored. In this way, monetary policy can have a powerful effect on current prices through its impact on inflation expectations. Another channel is more indirect: changes in effective demand may translate into tighter or looser conditions in markets for labour and intermediate products, and these in turn can affect price-setting in the respective market.

…and also the exchange rate

Changes in interest rates induced by monetary policy decisions may also affect the exchange rate, inter alia by influencing international capital flows. This will normally affect inflation in three ways. First, exchange rate movements may directly affect the domestic price of imported goods. If the exchange rate appreciates, the price of imported goods tends to fall, thus helping to reduce inflation directly, insofar as these products are directly used in consumption. Second, if these imports are used as inputs into the production process, lower prices for inputs might, over time, feed through into lower prices for final goods. Third, exchange rate developments may also have an effect via their impact on the competitiveness of domestically produced goods on international markets. If an appreciation in the exchange rate makes domestically produced goods less competitive in terms of their price on world markets, this tends to constrain external demand and thus reduce overall demand pressure in the economy. All other things being equal, this would tend to reduce inflationary pressures. The importance of these exchange rate effects will depend on how open the economy is to international trade. The exchange rate channel of monetary policy transmission is less important for a large, relatively closed currency area like the euro area than for a small open economy.

Complexity of the transmission process

The transmission mechanism of monetary policy is thus a complex web of economic interactions. Despite the best efforts of economists working in academia, in research institutes and in central banks, it remains imperfectly understood. Indeed, the level of uncertainty facing the ECB may even be somewhat greater than that faced by many other central banks, since the

ECB is responsible for an entirely new currency area. Moreover, institutional and behavioural changes following the introduction of the single currency at the beginning of 1999 may have changed the relationships between different economic variables. As more information and research results become available over time, a more detailed understanding of monetary policy transmission in the euro area will develop.

3.3 The analysis of risks to price stability in the ECB's stability-oriented monetary policy strategy

The role of a monetary policy strategy

Against the background of the preceding discussion, the challenge faced by the ECB can be stated as follows. The Governing Council of the ECB has to influence conditions in the money market, and thereby the level of short-term interest rates, such that – through the effects on the price level via the monetary policy transmission process – price stability is best maintained over the medium term.

Comprehensive framework for monetary policy decisions

The monetary policy strategy of the ECB aims to meet this challenge. It is intended to provide a comprehensive framework within which decisions on the appropriate level of short-term interest rates can be taken. Rather than focusing on a specific situation, the ECB has adopted a lasting strategy to ensure that a consistent and systematic approach to monetary policy decisions is adopted over time. Such consistency helps to stabilise inflation expectations and build the credibility of the ECB.

The main element of the ECB's monetary policy strategy is its definition of price stability (see Section 3.1). The strategy then ensures that the Governing Council receives all the relevant information and analysis needed to take monetary policy decisions to ensure the maintenance of price stability in a systematic and organised manner. Finally, the strategy must provide a framework for explaining monetary policy decisions to the public in a clear and transparent manner.

Characteristics of a successful monetary policy

Monetary policy must be forward-looking…

Owing to the lags in the transmission process, changes in monetary policy today will only affect the price level after a number of quarters or even years. This means that central banks need to ascertain what policy stance is needed today in order to maintain price stability in the future, after the transmission lags unwind. In this sense, monetary policy must be forward-looking.

…focusing on the medium term…

Furthermore, as noted in Section 3.2, the transmission lags make it impossible in the short run for monetary policy simply to offset unanticipated shocks to the price level (for example, those caused by changes in international commodity prices). Thus, some short-term volatility in inflation rates cannot be avoided. In addition, owing to the complexity of the transmission process, there is always a large element of uncertainty surrounding the effects of monetary policy. For these reasons, a medium-term orientation of monetary policy is important. Such an orientation will avoid excessive activism and the introduction of unnecessary (and possibly self-sustaining) volatility into the

real economy, while nevertheless ensuring that price stability is maintained over the medium term. Such a medium-term orientation is consistent with the ECB's statement that "price stability is to be maintained over the medium term".

…thereby dealing with a considerable degree of uncertainty

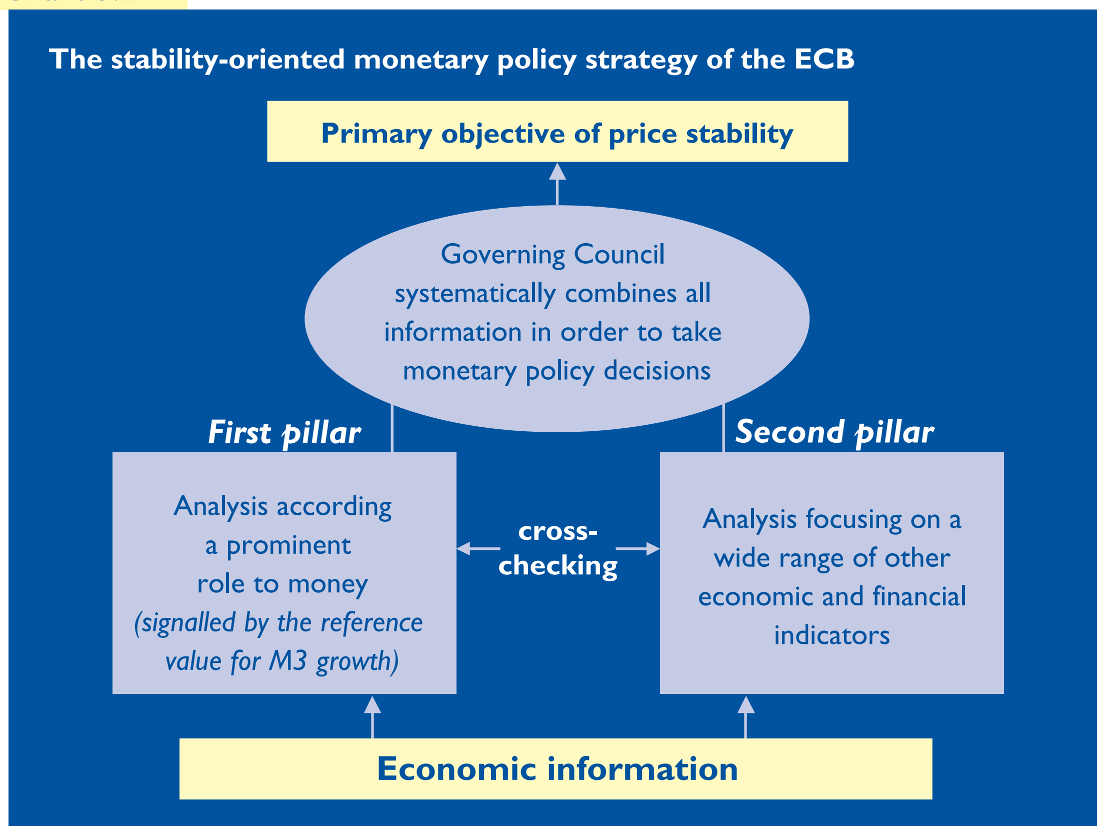
Finally, the ECB is faced with considerable uncertainty, in particular in the first few years of Monetary Union, about the reliability of economic indicators, the structure of the euro area economy and the transmission mechanism of the single monetary policy, among other things. However, all central banks face a large degree of uncertainty – this is certainly not unique to the ECB. A successful monetary policy therefore has to be broadly based, taking into account all relevant information and not relying on a single model of the economy.

The two pillars of the ECB's monetary policy strategy

The two-pillar framework…

The Governing Council of the ECB agreed on the main elements of its stability-oriented monetary policy strategy in October 1998 (for a discussion of alternative candidate strategies, see Box 3.2). In addition to the definition of price stability, the strategy consists of two "pillars", which organise the information and analysis underlying policy discussions (see Chart 3.2). These two pillars constitute a framework within which the forward-looking

Chart 3.2



assessment of the economic situation can be undertaken, based on as full a set of economic information and analytical tools as possible.

The two pillars of the strategy are tools for conducting the analysis needed to guide monetary policy decisions in order to achieve the primary objective of price stability. They are not distinct targets in and of themselves.

…is a tool to organise information

The first pillar of the monetary policy strategy

The first pillar of the ECB's strategy is a prominent role for money. As noted in Section 3.2, there is widespread consensus among economists about the fundamentally monetary origins of inflation over the medium to longer term. One of the most remarkable empirical regularities in macroeconomics is the stable long-run relationship between the price level and money, particularly when the latter is measured using broad monetary aggregates. Monetary developments contain information about future price developments and can therefore help in the overall assessment of risks to price stability. Monetary and credit aggregates may also play a role in the transmission mechanism of monetary policy to the price level. For all these reasons, it is important that a central bank monitors monetary and credit developments closely. By assigning money a prominent role within its strategy, the ECB has clearly signalled to the public its intention to undertake such monetary analysis.

Prominent role for money…

The prominent role of money in the ECB's strategy is signalled by the announcement of a quantitative reference value for the growth of the broad monetary aggregate M3 (see Box 3.3). The focus on M3 is justified by its favourable empirical properties. Most empirical studies for the euro area support the view that there is a stable (long-run) money demand relationship linking M3 to the price level and other macroeconomic variables. M3 has also been shown to exhibit leading indicator properties for future inflation, especially over a medium-term horizon.

…signalled by the announcement of the reference value…

The reference value is not a monetary target. The ECB does not attempt to keep M3 growth at the reference value at any particular point in time by manipulating interest rates. However, deviations of M3 growth from the reference value are closely analysed in the context of other economic data in order to extract the information they contain regarding risks to price stability. Any monetary policy response is intended to address the threats to price stability identified by this comprehensive analysis.

…which is not a monetary target…

For a number of reasons, monetary policy does not respond in a mechanical way to deviations of M3 growth from the reference value. First, the relationship between money, prices and economic activity – a relationship which can be summarised as the "velocity of circulation" of money – may be more complex and less stable in the short run than it is over longer horizons. The analysis of monetary developments needs to take these complexities into account. Second, changes in the structure of banking and financial systems can permanently change the velocity of circulation, and therefore the relationship between money and the level of economic transactions. An important challenge for the monetary analysis undertaken by the ECB is to distinguish

…and which does not imply mechanical policy responses

Box 3.2

Alternative monetary policy strategies

A number of other monetary policy strategies are, or have been, pursued by other central banks. Several of these were considered by the EMI and the ECB before the decision was taken to adopt the stability-oriented two-pillar strategy.

One such strategy is **monetary targeting**. In practice, this means that a central bank changes official interest rates in an attempt to either speed up or slow down monetary growth to a specific and pre-announced rate. This target rate is derived so as to be compatible with price stability. Such a strategy rests on two premises. First, a stable relationship between money and the price level (e.g. in the form of a money demand equation) should exist over the medium term. If so, then a path consistent with price stability can be derived for the money stock. Second, the money stock should be controllable by monetary policy over a limited time horizon. Taken together, these conditions imply that the central bank can use changes in official interest rates to successfully target the money stock to its prescribed path and thereby – owing to the stability of the money-to-price relationship – indirectly maintain price stability.

While central bank experience with this approach influenced the design of the ECB's strategy, the ECB decided not to adopt monetary targeting. This decision acknowledged the existence of information in macroeconomic variables other than money that is important for monetary policy decisions aimed at price stability. Furthermore, some uncertainties about the empirical properties of money in the euro area exist due to the possibility of institutional and behavioural changes associated with the transition to Monetary Union, and – more generally – by the possibility that special factors might temporarily distort monetary developments. It may therefore be difficult to rely exclusively on monetary analysis.

Another strategy is **direct inflation targeting**. Rather than using money to guide monetary policy decisions, this approach focuses on developments in inflation itself relative to a published inflation target. Central banks using this approach communicate monetary policy decisions in terms of a more or less mechanical reaction to deviations in a forecast for a particular measure of inflation from a specific inflation target at a particular horizon. The central bank's forecast for inflation is therefore placed at the centre of policy analysis and discussions, both within the central bank and in its presentations to the public.

The ECB decided not to pursue such a strategy for a number of reasons. First, focusing entirely on a forecast inflation figure does not provide an encompassing and reliable framework for identifying the nature of threats to price stability. However, the appropriate monetary policy response will generally depend on the sources of these risks to price stability. As a minimum, it requires a deeper analysis of the underlying economic situation and behaviour than is captured solely in an inflation forecast. Second, various aspects of the textbook inflation targeting approach – such as the fixed horizon (e.g. two years) of the forecast from which monetary policy decisions feed back – are somewhat arbitrary. Third, it is difficult to integrate the information relevant for monetary policy contained in monetary aggregates into inflation forecasts that are based on conventional macroeconomic models. Finally, the ECB felt that relying on a single forecast would be unwise, given the considerable uncertainty relating to the structure of the euro area economy. It was considered preferable to adopt a diversified approach to the analysis of economic data that would draw on a variety of analytical approaches.

A third strategy is **exchange rate targeting**, which was pursued by several European countries prior to Stage Three of EMU in the

context of the exchange rate mechanism of the European Monetary System. For small open economies where the production and consumption of internationally traded goods are a large part of the economy, developments in the exchange rate can have a significant impact on the price level through their effect on the price of imports. An exchange rate targeting strategy was not considered appropriate for the euro area, not least as it is a large and relatively closed economy where the impact of exchange rate developments on the price level is more modest.

temporary changes in velocity from permanent changes so that the information in monetary developments can be interpreted appropriately.

Identifying "special factors" and distortions

Finally, monetary developments may be influenced by "special" factors caused by institutional changes such as modifications to the tax treatment of interest income or capital gains. These special factors can cause changes in money holdings since individuals and firms will respond to changes in the attractiveness of bank deposits included in the definition of money relative to alternative financial instruments. However, monetary developments caused by these special factors may not be very informative about the outlook for price stability. Consequently, monetary analysis at the ECB includes a detailed assessment of special factors influencing money. Moreover, occasionally it may happen that there are statistical distortions, implying that the reported data are not fully in line with the statistical definition of the monetary aggregates. However, such distortions often can be statistically identified and estimated. When the respective evidence is reliable, the published monetary series can then be adjusted.

Analysis of components and counterparts of M3

The reference value is an important element of the strategy and constitutes a visible public commitment on the part of the ECB to assign an important role to money in monetary policy decisions and to explain this role to the public. However, because of the need to undertake detailed and relatively complex monetary analysis in order to extract the information relevant for monetary policy decisions, the ECB does not rely solely on deviations of M3 growth from the reference value. Many other monetary and financial variables are closely analysed on a regular basis under the first pillar. For example, developments in the components of M3 (such as cash in circulation, time deposits, etc.) are studied because they can offer an insight into the overall changes in M3. In this respect, narrower aggregates such as M1 may contain some information about real activity. Similarly, changes in credit extended to the private sector can be informative about financial conditions and, through the MFI balance sheet, can provide additional information about money. Such analysis helps to provide both a better insight into the behaviour of M3 in relation to the reference value and a broad picture of the liquidity conditions in the economy and their consequences in terms of risks to price stability.

Box 3.3

The ECB's reference value for monetary growth

The prominent role for money in the ECB's strategy is signalled by the announcement of a reference value for the growth of the broad monetary aggregate M3. The reference value has been derived so as to be consistent with the achievement of price stability. Substantial or prolonged deviations of monetary growth from the reference value would under normal circumstances signal risks to price stability over the medium term.

The derivation of the reference value is based on the relationship between monetary growth (ΔM), inflation (ΔP), real GDP growth (ΔYR) and changes in velocity (ΔV). According to this identity, which is widely known as the "quantity equation", the change in the money stock in an economy equals the change in nominal transactions (approximated by the change in real GDP plus the change in the price level) minus the change in velocity. The latter variable can be defined as the speed with which money is transferred between different money holders and thus determines how much money is required to service a particular level of nominal transactions.

$$\Delta M = \Delta YR + \Delta P - \Delta V$$

The reference value embodies the definition of price stability as an increase in the HICP for the euro area of below 2% per annum. Furthermore, the derivation of the reference value has been based on medium-term assumptions regarding potential output growth and the trend in the velocity of circulation of M3. In 1998, an assumption of 2-2½% per annum was made for the medium-term trend in real GDP growth for the euro area, reflecting estimates from both international organisations and the ECB. Various approaches were employed to derive the assumption for velocity of circulation, taking into account simple (univariate) trends as well as information available from more complex money demand models. Taken together, the results of these approaches pointed to a decline of M3 velocity in the range of ½-1% per annum. On the basis of these assumptions, the ECB's reference value was set at 4½% per annum by the Governing Council in December 1998. Since no new decisive evidence had emerged which would have led to a significant change in the underlying assumptions, the reference value was confirmed in the Governing Council's December 1999 and 2000 reviews.

The second pillar of the monetary policy strategy

Analysis under the second pillar…

The information required to take appropriate monetary policy decisions needs to be comprehensive and broadly based. Therefore, in parallel with the analysis of monetary growth in relation to the reference value, a wide range of other economic and financial variables is also closely analysed as part of the second pillar of the strategy. These variables are also assessed for the information that they may contain of relevance for monetary policy decisions aimed at price stability.

…centred on the interplay between supply and demand in goods, services and labour markets, …

Analysis under the second pillar focuses on revealing the influence of a variety of factors that normally affect price developments in the shorter term. Such factors are relevant for monetary policy because they may become entrenched and therefore threaten the prospects for price stability in the medium term. In line with standard models of the business cycle, this analysis is often centred on the effects of the interplay between supply and demand and/or cost pressures on pricing behaviour in the goods, services and labour markets.

To take appropriate decisions, the Governing Council needs to have a comprehensive understanding of the prevailing economic situation, and be aware of the specific nature and magnitude of economic disturbances which threaten price stability. For example, the appropriate monetary policy response to the inflationary consequences of a temporary rise in the international price of oil might be different from the appropriate response to higher inflation resulting from the labour cost implications of wage increases not justified by productivity growth. The former results in a transient and short-lived increase in inflation which quickly reverses. As such, if this shock does not lead to higher inflation expectations, it may pose little threat to price stability over the medium term. In the case of excessive wage increases, the danger exists that a self-sustaining spiral of higher costs, higher prices and higher wage demands may be created. To avoid such a spiral, a strong monetary policy action to reaffirm the central bank's commitment to the maintenance of price stability, thereby helping to stabilise inflation expectations, may be the best response.

… contributes to revealing the nature of shocks

Under the second pillar, the ECB regularly reviews developments in overall output, demand and labour market conditions, in a broad range of price and cost indicators, and in fiscal policy, as well as in the balance of payments for the euro area. Box 3.4 reviews the statistical basis for indicators of economic developments analysed by the ECB under the second pillar and highlights the importance of the availability of high-quality statistics.

Analysis of real economy indicators, …

Developments in financial market indicators and asset prices are also closely monitored. Movements in asset prices may affect price developments via income and wealth effects. For example, as equity prices rise, share-owning households become wealthier and may choose to spend more on consumption. This will add to consumer demand and may fuel domestic inflationary pressures. Conversely, should equity prices fall, households may reduce consumption.

…financial market indicators…

Asset prices and financial yields can also be used to derive information about the expectations of the financial markets, including expected future price developments. For example, when buying and selling bonds, financial market participants implicitly express expectations about future developments in interest rates and prices. Using a variety of techniques, the ECB can analyse financial prices to extract the markets' implicit expectations about future developments.

Developments in the exchange rate are also closely assessed for their implications for price stability. As discussed in Section 3.2, exchange rate movements have a direct effect on price developments through their impact on import prices. Changes in the exchange rate may also alter the price-competitiveness of domestically produced goods on international markets, thereby influencing demand conditions and potentially the outlook for prices. If such exchange rate effects alter the expectations and behaviour of wage and price-setters, the potential for second-round effects stemming from the exchange rate may exist. All this information needs to be taken into account in monetary policy decisions aimed at price stability.

…and exchange rate developments

Box 3.4

Statistics relating to economic developments in the euro area

As explained in Chapter 3, the chain of causes and effects linking monetary policy decisions with the price level is complex and involves different sectors of the economy. Therefore, a wide range of indicators needs to be monitored in order to assess the outlook for price stability.

First, in terms of *price and cost* developments, alongside the HICP and its components, indications of price developments in the industrial sector, as measured by producer prices, may play an important role in signalling likely future changes in consumer prices as changes in production costs feed through to consumer prices. Labour costs, which are an important element of overall production costs, have a significant impact on price formation. Labour cost statistics also provide information on the competitiveness of the euro area economy.

Second, indicators of *output and demand* (national accounts, short-term statistics on activity in industry and services, orders, and qualitative survey data) provide information on the cyclical position of the economy, an important element in the ECB's analysis of prospects for price developments. Furthermore, *labour market* data (on employment, unemployment, vacancies and labour market participation) are of crucial importance in the monitoring of conjunctural developments and in assessing structural changes in the functioning of the euro area economy. Moreover, the government sector represents a substantial part of economic activity; information on both financial and non-financial *public sector* accounts is essential.

Finally, *balance of payments statistics* (compiled by the ECB), along with external trade statistics supplied by Eurostat, provide important information on developments in exports and imports which may affect inflationary pressures via their impact on demand conditions. These data also allow external trade prices – currently proxied by export and import unit value indices – to be closely monitored. These indices contribute to the assessment of, in particular, the potential impact on import prices of movements in the exchange rate and changes in commodity prices (such as oil). Although the euro area is a relatively closed economy compared with the individual countries that have adopted the euro, imported inflation does affect domestic producer and consumer prices. (In addition, balance of payments data on financial transactions are important indicators for monetary and financial analysis.)

High-quality statistics are vital for a reliable picture of the economy. Policy mistakes due to incomplete or unreliable statistics can be costly in terms of higher inflation and higher volatility of real growth. The quality of statistics entails several aspects. First, *all sectors of the economy* should be covered. In particular, in addition to the conventional statistics on industry and trade, indicators for the increasingly important services sector are needed. Second, a *harmonisation* of concepts and methods is essential to ensure that any euro area indicator compiled from national series accurately depicts developments and thereby provides reliable information for monetary policy decisions. Third, *timeliness and a sufficiently high frequency* of data are essential for the conduct of monetary policy. Only timely statistics can provide information on the current state of the economy. Moreover, concerning *geographic coverage*, aggregate data for both the euro area as a whole and individual countries are of the greatest importance. Fourth, long runs of *backdata* are essential for econometric analysis which contributes to the understanding of the euro area economy.

The provision of statistics for the euro area is continuously being developed and improved. Common methodological standards have been defined for many areas of euro area statistics, and progress has been made in respect of both availability and timeliness. In this regard, a number of initiatives have been taken. In particular, an Action Plan on EMU Statistical Requirements of September 2000 established by the European Commission (Eurostat) in close co-operation with the ECB detailed priority improvements in economic statistics.

Under the second pillar, macroeconomic projections are prepared twice a year by the staff of the Eurosystem. They are an important contribution among a number of inputs into the deliberations of the Governing Council, but they do not embody the policy judgement of the Council. The projections help to underpin the forward-looking orientation of monetary policy. They summarise and synthesise a large quantity of information that could otherwise become too unwieldy for policy discussions. They also provide a platform for the integration of economic analysis under the second pillar in a coherent and internally consistent way which seeks to reflect past experience and fundamental economic relationships. However, projections are inherently uncertain and this uncertainty increases with the length of the (projection) horizon. In order to reflect the uncertainties surrounding such projections, the ECB publishes the Eurosystem staff macroeconomic projections in the form of ranges.

Eurosystem staff macroeconomic projections…

The word "projection" is used in order to underline the fact that the published projections are the result of a scenario based on a set of underlying technical assumptions, including the assumption of unchanged short-term interest rates. This is the way forecasts are produced in many central banks in order to best inform monetary policy decision-makers. In view of this, it should be clear that the projection will not, in general, be the best predictor of future outcomes, in particular at longer horizons. Rather, it represents a scenario which, unless consistent with price stability, is likely to be falsified in practice, since monetary policy will always act to address any threats to price stability. Therefore, the macroeconomic projections of inflation prepared by Eurosystem staff should not, under any circumstances, be seen as questioning the commitment of the Governing Council to maintaining price stability over the medium term. Wage and price-setters, as well as firms and households, should rely on the ECB's quantitative definition of price stability as the "best prediction" of medium-term price developments.

…based on technical assumptions, …

Eurosystem staff macroeconomic projections are produced using a number of tools and inputs. Several different macroeconometric models are available for the euro area as well as for individual countries in the euro area. In a situation of model uncertainty, it is preferable to employ a variety of them, embodying various views of economic structure and estimated using different methodologies, rather than relying on a unique and all-encompassing framework. The projections produced by these models are adjusted in light of the technical expertise of staff experts both at the ECB and at the NCBs.

…models and technical expertise of staff…

Although they play a useful role, the staff macroeconomic projections are no panacea. First, they are always based on specific assumptions – such as those concerning oil prices or exchange rates – with which it is possible to disagree or which can change rapidly, making the projections outdated. Second, the final projection depends to a considerable extent on the underlying conceptual framework and the techniques employed. Any such framework is a simplification of reality and may occasionally neglect the key issues of relevance for monetary policy. Third, economic projections can only provide a summary description of the economy and thus do not incorporate all relevant information. In particular, important information, such as that contained in

…are no panacea…

monetary and credit aggregates, is not easily integrated into the framework used to produce the projections or information may change after the projections have been finalised. Fourth, expert views are inevitably incorporated into projections and there can be good reason for not agreeing with particular views.

…play an important, but limited role

For all these reasons, staff macroeconomic projections play an important but limited role in the ECB's monetary policy. The Governing Council evaluates them together with many other pieces of information and forms of analysis organised within the two-pillar framework. These include monetary analysis under the first pillar and analyses of financial prices, individual indicators and the forecasts of other institutions under the second pillar. Thus the Governing Council does not use the staff macroeconomic projections as the main tool for organising and communicating its assessment.

In December 2000, the ECB decided to publish Eurosystem staff macroeconomic projections twice a year in its Monthly Bulletin.

Why two pillars?

Model uncertainty

One reflection of the uncertainties about, and the imperfect understanding of, the economy in general – and the transmission mechanism of monetary policy in particular – is the large range of models of the inflation process. These models embody different views on the functioning of the economy and/or emphasise to different extents the various channels of monetary policy transmission discussed in Section 3.2. For example, some models stress the role of money in the transmission mechanism, while others emphasise the importance of non-monetary influences, such as shifts in the relationship between supply and demand and/or cost pressures on pricing behaviour in the goods, services and labour markets. Many of these models capture important elements of reality, but none of them appears to be able to describe reality in its entirety. Therefore, any single model – while potentially offering a useful perspective on economic developments – is necessarily incomplete. In such circumstances, it would be unwise to rely exclusively on a single approach or a single indicator in order to take monetary policy decisions.

Model diversity

In view of the multiplicity of existing models the ECB has chosen to organise its analysis under two pillars. In so doing, the ECB took account of the fact that it has proven extremely difficult to give money a prominent role in conventional real economy models, despite the consensus that money and prices are related and the empirical evidence that monetary aggregates may be a leading indicator of price developments and could constitute an important channel of monetary policy transmission. Therefore, the first pillar can be seen as representing a group of models and analytical frameworks which embody a view of price level determination that accords an important role to money and also take into account those channels of monetary policy transmission which assign an important role to money. The second pillar encompasses a range of alternative models of the inflation process, predominantly those which emphasise the interplay between supply and demand and/or cost pressures and the transmission channels that operate via these variables.

A variety of models is assessed under both pillars. Moreover, these models are undergoing continuous evolution, as research produces new empirical and analytical tools to examine the structure of the economy and the transmission mechanism of monetary policy in the euro area.

Cross-checking of information

Given the uncertainties they face, central banks should always cross-check and compare the signals given by different indicators and evaluate the available information and the consequences of their actions in the light of a range of plausible models of the economy. In this context, policy choices which perform reasonably well under many plausible models and in a range of possible circumstances are often the best choice over the medium term.

Robust monetary policy

The ECB's strategy should be viewed in this light. It is a framework that not only encompasses all relevant information, but also takes into account various interpretations of this information. Against this background, the two-pillar approach reduces the risks of policy errors caused by relying too much on a single indicator, forecast or model. By taking a diversified approach to the interpretation of economic conditions, the ECB's strategy may be regarded as facilitating the adoption of a robust monetary policy in an uncertain environment.

No mechanical reactions to single indicators or forecasts

The Governing Council sets the monetary policy instruments of the Eurosystem in order best to serve the achievement of its primary objective. It does so on the basis of the signals regarding the risks to price stability that are provided by both pillars of the strategy. Therefore, monetary policy does not react mechanically to developments in any single indicator or forecast, but rather evaluates, cross-checks and integrates the information from both pillars into an overall assessment of the nature and magnitude of shocks and the resulting economic situation and the prevailing risks to price stability, which incorporates a vital element of policy judgement introduced by the members of the Governing Council themselves.

3.4 Accountability, transparency and communication

Central bank independence, accountability and transparency

Independence…

As explained in Chapter 1, there are good reasons to entrust the task of maintaining price stability – thereby safeguarding the value of money – to an independent central bank, which is not subject to potential political pressure. At the same time, the delegation of decision-making authority to an independent institution obliges that institution to be accountable for fulfilling its mandate. An independent central bank – like any public institution – needs to explain its decisions to the public and take responsibility for its actions. Accountability imposes discipline on the central bank to perform its tasks as well as possible.

…and accountability as natural complements

In a democratic society, accountability is a natural complement to central bank independence. A clearly defined and limited mandate is the basis for the democratic legitimacy of delegating monetary policy to an independent central bank, and an overriding focus on the mandate of price stability enables the public to hold an independent central bank accountable.

The terms "accountability" and "transparency" are sometimes used interchangeably. However, it is important to distinguish between the two concepts. Accountability means the central bank is held responsible for fulfilling its objectives. Transparency – defined in a narrow sense – means that it provides information about the internal decision-making process. More broadly, transparency involves explaining how monetary policy is used to achieve the mandate assigned. A monetary policy strategy contributes to transparency by providing a systematic framework for both internal decision-making and external communication with the public. Greater transparency translates into a better understanding of monetary policy among the public and so has the potential to enhance its credibility and effectiveness. The appropriate channels for ensuring the accountability of a central bank depend on the institutional framework and on the central bank's mandate. Given its independent status, the ECB cannot be held accountable by national governments or national parliaments. Instead, it is accountable to the European public at large and to the European Parliament, a body with a European mandate and direct democratic legitimacy.

Transparency and accountability

The ECB's relationship with the European Parliament in this regard is defined by the Treaty and respects the institutional independence of the ECB. The Treaty imposes a number of reporting requirements on the ECB and establishes regular presentations to the European Parliament to ensure accountability (see Chapter 1). The ECB has in fact gone beyond the formal Treaty requirements in adopting additional means of ensuring accountability and transparency (see Box 3.5).

Communication activities of the ECB

The communication role of a monetary policy strategy

In order to promote a better understanding of monetary policy, the entire process of monetary policy-making should, in principle, be revealed and made understandable to the public. In practice, however, it is difficult to provide a completely exhaustive and intelligible description of all elements and aspects of the internal monetary policy-making process to the public.

Presentation of monetary policy to the public…

Therefore, in presenting monetary policy to the public, various choices have to be made. Designing an effective approach to communication requires that a balance be struck between being open about the complex nature of policy-making and simplifying the presentation of this process in the interests of greater clarity. In this context, the choice of an appropriate strategy must reflect the complexities and uncertainties arising from the economic environment in which the central bank operates and the framework of interpretation used by the various segments of the public with which the central bank needs to communicate. In this sense, effective communication requires a common framework and language with which both the central bank and the public are comfortable.

…needs to take into account the complexity of policy-making…

Against this background, the external communication of the ECB's monetary policy strategy places a premium on faithfully reflecting the complexity and uncertainties surrounding the economic environment, and thus of the internal decision-making process. The external presentation of the strategy is relatively

…and the uncertainty about the structure of the euro area economy

Box 3.5

Communication activities of the ECB

Going beyond the obligations contained in the Treaty to produce an Annual Report and a report on a quarterly basis, the ECB also publishes a "Monthly Bulletin". This Monthly Bulletin provides a thorough assessment of the economic situation underlying policy decisions and also features articles on particular issues of relevance for the ECB's monetary policy. Moreover, the President of the ECB appears before the European Parliament's Committee on Economic and Monetary Affairs each quarter to report on the ECB's monetary policy and answer questions. Transcripts of these hearings are made available on the ECB's website. In addition, the ECB presents its Annual Report to the European Parliament.

The President and the Vice-President hold a press conference immediately after the first Governing Council meeting of each month. In the introductory statement the President presents the Governing Council's view of the economic situation and its assessment of the risks to price stability relevant for its monetary policy decisions, and provides information on other issues discussed and decisions taken by the Governing Council. This is followed by an extended question and answer session with the journalists attending the press conference. Transcripts of these press conferences are released on the ECB's website on the same day. This allows information about monetary policy decisions to be presented to the public in a timely and even-handed manner.

The members of the Governing Council take on a large number of public engagements. Speeches by members of the Executive Board are normally made available on the ECB's website. The ECB also receives a large number of visits from members of the general public as well as experts from a variety of institutions. It is committed to an open dialogue with the academic world. Research results of a technical nature and policy-related studies of general interest are published by staff members in the ECB's Working Paper and Occasional Paper series respectively.

Finally, transparency of monetary policy also requires that the statistical data collected by the central bank be published, once their reliability has been ensured, fully and in a timely manner. With the help of NCBs, the ECB collects money and banking and related statistics, balance of payments statistics, and international investment position statistics and compiles financial accounts statistics covering the euro area (see the ECB publication "Statistical information collected and compiled by the ESCB", May 2000). The timely publication of these data allows the ECB to share with the public the information it possesses on economic developments in the euro area and thereby facilitates the communication of monetary policy decisions by the Governing Council.

complex compared with simple textbook-like strategies (such as monetary targeting or inflation targeting), but it well reflects the diversified approach to monetary policy that the ECB has adopted for its internal decision-making in response to uncertainty about the structure of the euro area economy.

4 Monetary policy implementation

This chapter explains how monetary policy decisions are implemented using the available monetary policy instruments. The first section gives an overview of the objectives and principles which govern the functioning of the Eurosystem's operational framework. The second section briefly describes the main monetary policy instruments (open market operations, the minimum reserve system and the standing facilities), while the following sections examine these in greater detail and present the interaction between the monetary policy instruments and the banks' liquidity needs in the context of a central bank balance sheet. The final section provides a brief assessment of the operational framework's performance in the first two years of Stage Three of EMU.

4.1 General principles and objectives behind the design of the operational framework

Money market and the transmission of monetary policy

As discussed in Chapter 3, short-term money market rates play an important role in the transmission of monetary policy. Monetary policy exerts significant influence over short-term nominal market interest rates. By setting interest rates, monetary policy influences the economy, and ultimately the price level, in a number of ways.

Operational framework…

In order to achieve its primary objective, the Eurosystem has at its disposal a set of monetary policy instruments and procedures. This set forms the operational framework which is used to implement the single monetary policy.

…and the monetary policy strategy

The operational framework and the monetary policy strategy each have a specific role in the implementation of monetary policy. The strategy determines which money market interest rate level is required to maintain price stability over the medium term, whereas the operational framework determines how to achieve this interest rate level using the available monetary policy instruments.

The functions of the operational framework include steering interest rates and managing liquidity, …

A central bank steers short-term money market rates by signalling its monetary policy stance and by managing the liquidity situation in the money market. The central bank, as the sole issuer of banknotes and bank reserves, is the monopoly supplier of the monetary base.[1] By virtue of its monopoly, the central bank is able to manage the liquidity situation in the money market and influence money market interest rates.

…signalling the monetary policy stance, …

As well as steering interest rates by managing liquidity, the central bank can also signal its monetary policy stance to the money market. This is usually done by changing the conditions under which the central bank is willing to enter into transactions with the money market.

1 *The monetary base in the euro area consists of currency (banknotes and coins) in circulation, the reserves held by counterparties with the Eurosystem and recourse to the Eurosystem's deposit facility. These items are liabilities on the Eurosystem's balance sheet. Reserves can be broken down further into required and excess reserves. In the Eurosystem's minimum reserve system, counterparties are obliged to hold required reserves with the NCBs (see Section 4.4). In addition to required reserves, credit institutions usually hold only a small amount of voluntary excess reserves with the Eurosystem.*

…and ensuring an orderly functioning of the money market

In its operations the central bank also aims to ensure an orderly functioning of the money market and to help banks meet their liquidity needs in a smooth and well-organised manner. This is achieved by providing regular refinancing to the banks and facilities that allow them to deal with end-of-day balances and to cushion transitory liquidity fluctuations.

The guiding principles of the framework are the principles of an open market economy, …

The operational framework of the Eurosystem is based on the principles laid down in the Treaty on European Union. Article 105 of the Treaty states that in pursuing its objectives, the Eurosystem "(…) shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources (…)".

…operational efficiency, …

In addition to the principles set out in the Treaty on European Union, the operational framework aims to follow several other guiding principles. The most important of these is the principle of operational efficiency, which takes priority over the other principles. Operational efficiency can be defined as the capacity of the operational framework to enable monetary policy decisions to feed through as precisely and as fast as possible to short-term money market rates. These in turn, through the monetary policy transmission mechanism, affect the price level.

…equal treatment of financial institutions and the harmonisation of rules and procedures, …

The need to ensure equal treatment of financial institutions and the harmonisation of rules and procedures throughout the euro area are other important principles of the operational framework. Credit institutions must be treated equally irrespective of their size and where they are located in the euro area. The harmonisation of rules and procedures helps to ensure equal treatment by trying to provide identical conditions to all credit institutions in the euro area in transactions with the Eurosystem.

…decentralisation of implementation, …

One principle which is specific to the Eurosystem is the decentralisation of the implementation of monetary policy. Accordingly, the Eurosystem's monetary policy operations are normally implemented through the NCBs, which means that the ECB co-ordinates the operations and the transactions are carried out by the NCBs.

…as well as simplicity, transparency, continuity, safety and cost efficiency

In addition, the operational framework has to apply the principles of simplicity, transparency, continuity, safety and cost efficiency. Simplicity and transparency ensure that the intentions behind monetary policy operations are correctly understood. The principle of continuity aims at avoiding major changes in instruments and procedures, so that central banks and their counterparties can draw on experience when participating in monetary policy operations. The principle of safety requires that the Eurosystem's financial and operational risks are kept to a minimum, while cost efficiency means keeping low the operational costs to both the Eurosystem and its counterparties arising from the operational framework.

4.2 Overview of the Eurosystem's operational framework[2]

Open market operations

Table 4.1 provides an overview of the main features of the two groups of operations available to the Eurosystem for the conduct of the single monetary policy. The most important group of operations is open market operations. This is the term used for operations which are executed on the initiative of the central bank, usually in the money market. As described in Section 2.5, "money market" refers to the market in which the maturity of transactions is generally less than one year. Open market operations play an important role in steering interest rates, signalling the stance of monetary policy and managing the liquidity situation in the money market.

Main refinancing operations

The main refinancing operations are the most important open market operations and represent the key monetary policy instrument of the Eurosystem. Through the main refinancing operations the Eurosystem lends funds to its counterparties. Lending is always against collateral, in order to protect the Eurosystem against financial risks. Box 4.1 provides some information on counterparties to the Eurosystem's monetary policy operations and the collateral required in the liquidity-providing operations.

Reverse transactions

Lending through open market operations normally takes place in the form of reverse transactions. Reverse transactions are operations where the central bank buys assets under a repurchase agreement or grants a loan against assets given as collateral (see Box 4.2). Reverse transactions are therefore temporary open market operations which provide funds for a limited period only, which is specified in advance. In the main refinancing operations funds are provided for a two-week period, and they supply the bulk of liquidity to the banking system. The interest rate applied to these operations is the most important policy rate of the Eurosystem. Main refinancing operations are described in greater detail in Section 4.3.

Standing facilities

For the purpose of controlling short-term interest rates in the money market and, in particular, restricting their volatility, the Eurosystem also offers standing facilities to its counterparties. The standing facilities are available to counterparties on their own initiative and are called the marginal lending facility and the deposit facility. The marginal lending facility provides overnight loans from the central bank against collateral at a predetermined interest rate. The interest rate on these overnight loans is normally substantially higher than the corresponding market rate. As a result, credit institutions only use the marginal lending facility to obtain funds as a last resort. Since access to the marginal lending facility is only limited by the amount of collateral available, the interest rate on the facility normally provides a ceiling for the overnight rate in the money market. The deposit facility, by contrast, allows banks to make overnight deposits with the central bank at a predetermined interest rate. The interest rate on these overnight deposits is normally substantially lower than the corresponding market rate. Therefore, counterparties only make overnight deposits with the Eurosystem if they cannot use their funds

2 *The main description of the Eurosystem's operational framework is contained in the ECB publication entitled "The single monetary policy in Stage Three: General documentation on Eurosystem monetary policy instruments and procedures".*

Corridor of standing facility interest rates

in any other way. Just as the interest rate on the marginal lending facility provides a ceiling, the interest rate on the deposit facility normally provides a floor for the overnight rate in the money market. These instruments are examined in more detail in Section 4.5.

By setting the rates on the standing facilities, the Governing Council determines the corridor within which the overnight money market rate can fluctuate. Chart 4.1, which shows the development of the key ECB interest

Table 4.1 **Eurosystem open market operations and standing facilities**

Monetary policy operations	Types of transactions[1]		Maturity	Frequency
	Liquidity providing	Liquidity absorbing		
OPEN MARKET OPERATIONS				
Main refinancing operations	• Reverse transactions	–	• Two weeks	• Weekly
Longer-term refinancing operations	• Reverse transactions	–	• Three months	• Monthly
Fine-tuning operations	• Reverse transactions • Foreign exchange swaps • Outright purchases	• Foreign exchange swaps • Collection of fixed-term deposits • Reverse transactions • Outright sales	• Non-standardised	• Non-regular
Structural operations	• Reverse transactions • Outright purchases	• Issuance of debt certificates • Outright sales	• Standardised/ non-standardised –	• Regular and non-regular • Non-regular
STANDING FACILITIES				
Marginal lending facility	• Reverse transactions	–	• Overnight	• Access at the discretion of counterparties
Deposit facility	–	• Deposits	• Overnight	• Access at the discretion of counterparties

1) See Box 4.2 for a description of the types of open market transactions.

Box 4.1

Counterparties and collateral

1 Counterparties

The Eurosystem's monetary policy framework is formulated with a view to ensuring the participation of a broad range of counterparties. Counterparties to Eurosystem monetary policy operations must fulfil certain eligibility criteria. These criteria are defined with a view to assuring equal treatment for institutions across the euro area and ensure that counterparties fulfil certain operational and prudential requirements. The general eligibility criteria are uniform throughout the euro area.

To be an eligible counterparty a credit institution must be subject to the Eurosystem's minimum reserve system and be financially sound. In addition, counterparties must fulfil any operational criteria specified in the relevant contractual or regulatory arrangements applied by their NCB (or by the ECB), so as to ensure the efficient conduct of Eurosystem monetary policy operations. At the end of 2000 there were 7,521 credit institutions located in the euro area. However, only 2,542 fulfilled the operational criteria for participating in open market operations. 3,059 and 3,599 fulfilled the operational criteria for accessing the marginal lending facility and the deposit facility respectively. However, the number of counterparties actually participating in open market operations is normally much lower than the number of eligible counterparties. In 1999 and 2000 the total number of counterparties participating in the tenders for the main refinancing operations fluctuated between 400 and 600. During the same period, the usual number of counterparties participating in the longer-term refinancing operations fell within a range of between 200 and 300.

A credit institution fulfilling the general eligibility criteria may access the Eurosystem standing facilities and participate in Eurosystem open market operations based on standard tenders through the NCB of the Member State in which it is established. If a credit institution has establishments (a head office and branches) in more than one Member State, each establishment has access to these operations through the NCB of the Member State in which it is located. However, the tender bids of an institution may only be submitted by one establishment (either the head office or a designated branch) in each Member State.

The Eurosystem's monetary policy operations are implemented in a decentralised manner. The decentralised approach has been very efficient and has run smoothly thanks to careful preparation and efficient information systems. The Eurosystem continues to benefit greatly from the close contacts which the NCBs have built up over the decades with their local counterparties.

2 Collateral

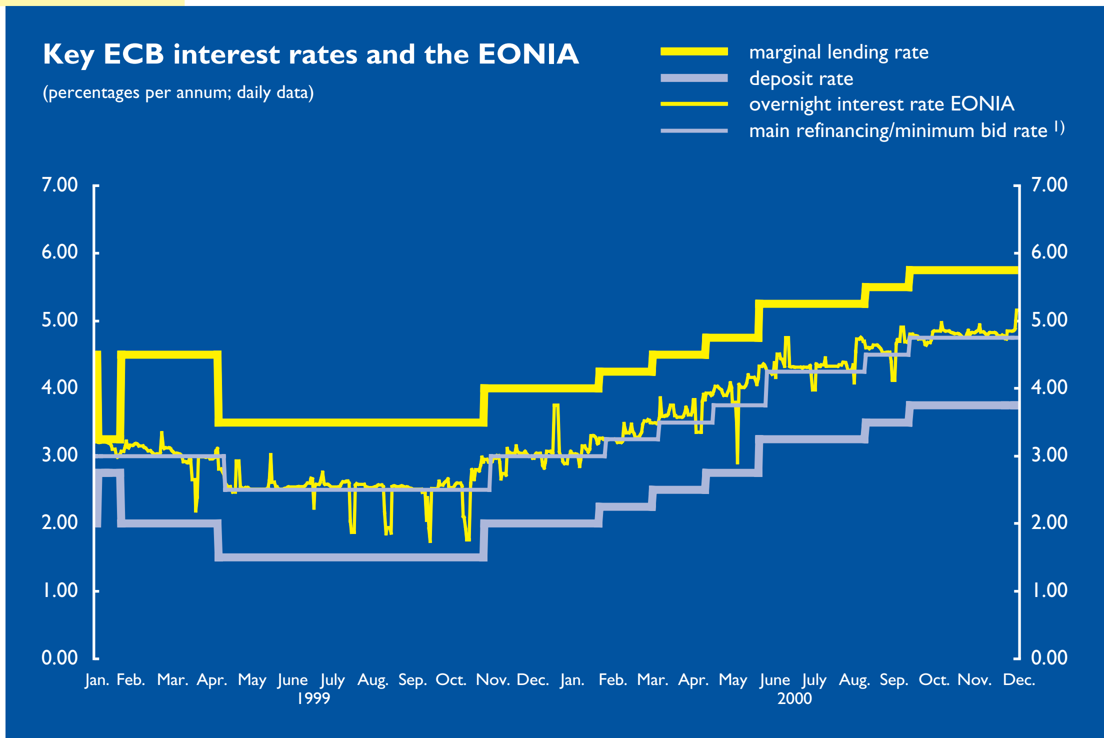
Article 18.1 of the Statute of the ESCB allows the ECB and the NCBs to transact in financial markets by buying and selling underlying assets outright or under repurchase agreements and requires all Eurosystem credit operations to be based on adequate collateral. This requirement is designed to protect the Eurosystem against financial risk. Consequently, all Eurosystem liquidity-providing operations are based on underlying assets provided by the counterparties.

In order to protect the Eurosystem from incurring losses, ensure the equal treatment of counterparties and enhance operational efficiency, underlying assets have to fulfil certain criteria in order to be eligible for use in Eurosystem monetary policy operations. The Eurosystem accepts instruments issued by both private and public debtors as collateral in order to respect the principle of equal treatment.

Owing to the differences in financial structure across Member States, a distinction is made – essentially for purposes internal to the Eurosystem – between two categories of assets eligible for monetary policy operations. These

two asset categories are referred to as "tier one" and "tier two". Tier one consists of marketable debt instruments which fulfil uniform euro area-wide eligibility criteria specified by the ECB. Tier two consists of additional assets – marketable and non-marketable – which are of particular importance for national financial markets and banking systems. The eligibility criteria for these assets are set by the NCBs, subject to the minimum eligibility criteria established by the ECB. Eurosystem counterparties may use eligible assets on a cross-border basis, i.e. they may obtain funds from the NCB of the Member State in which they are established by making use of assets located in another Member State. This cross-border mechanism ensures that institutions all over the euro area can use the complete lists of ECB tier one and national tier two assets. Finally, all eligible assets are subject to specific risk control measures which are defined in such a way that account is taken of market practices.

Chart 4.1



1) On 8 June 2000 the ECB announced that starting from the operation to be settled on 28 June 2000 the main refinancing operations would be conducted as variable rate tenders. The minimum bid rate refers to the minimum interest rate at which counterparties may place their bids. Before 28 June 2000, the main refinancing operations were conducted as fixed rate tenders (see Section 4.3).

rates since the start of Stage Three of EMU, also shows how the interest rates on the standing facilities have provided a ceiling and a floor for the overnight market interest rate (EONIA).[3]

3 The euro overnight index average (EONIA) is disseminated by the European Banking Federation (EBF). It is the weighted average of all uncollateralised overnight loans made by a panel of the banks most active in the money market.

As can be seen from Chart 4.1, the EONIA has been close to the rate on the main refinancing operations, thus illustrating the importance of these operations as the main monetary policy instrument of the Eurosystem. The fluctuations in the EONIA seen in the chart reflect to a large extent temporarily tight or loose liquidity conditions in the money market (see Section 4.4). Chart 4.1 also shows that the EONIA exhibits a pattern of occasional spikes. These two features of the EONIA are related to the Eurosystem's minimum reserve system, which is explained further in Section 4.4. Finally, the difference between the marginal lending facility and the deposit facility rates, as well as the differences between the standing facility rates and the rate on the main refinancing operations, were kept unchanged between April 1999 and December 2000. However, as can be seen from Chart 4.1, the differences between the interest rates on the two standing facilities can vary, and the corridor defined by the standing facility rates has occasionally also been asymmetric with regard to the interest rate on the main refinancing operations.

EONIA, the key ECB interest rates and the minimum reserve system

4.3 Open market operations

The Eurosystem's open market operations can be divided into the following four categories according to their aim, regularity and the procedures followed: main refinancing operations, longer-term refinancing operations, fine-tuning operations and structural operations (see Table 4.1 and Box 4.2).

Four categories of open market operations

Main refinancing operations

As mentioned above, the main refinancing operations are the most important open market operations conducted by the Eurosystem. They play a pivotal role in steering interest rates, managing the liquidity situation in the market and signalling the stance of monetary policy. They also provide the bulk of liquidity to the banking system. Main refinancing operations are executed in a decentralised manner by the NCBs.

Functions of main refinancing operations

Main refinancing operations are liquidity-providing operations. They are conducted on a weekly basis and have a maturity of two weeks. Main refinancing operations are executed through standard tenders. In the context of the operational framework of the Eurosystem, "standard" indicates tender operations which are conducted in accordance with a pre-announced schedule and executed within a period of 24 hours from the announcement of the tender to the communication of the results. All counterparties fulfilling general eligibility criteria may participate in these operations. In principle, all credit institutions located in the euro area are potentially eligible counterparties of the Eurosystem (see Box 4.1).

Standard tenders

The Eurosystem may execute its tenders in the form of fixed rate or variable rate tenders. In the former, the interest rate is specified in advance by the Governing Council and counterparties bid the amount of money they wish to transact at the fixed interest rate. In the latter, counterparties bid both the amount of money they wish to transact and the interest rate at which

Fixed and variable rate tenders

they wish to enter into the transaction. The Governing Council may set a minimum bid rate for variable rate tenders, in order to signal the monetary policy stance. Under both tender procedures the ECB decides on the amount of liquidity provided. In a fixed rate tender, this normally implies a pro rata allotment of the individual bank bids, depending on the ratio between total bids and total liquidity to be allotted. In a variable rate tender, the bids with the highest interest rates are satisfied first, followed by bids with successively lower rates, until the total amount of liquidity to be provided is exhausted. At the lowest accepted rate, the "marginal rate of allotment", bids are satisfied pro rata in line with the ECB's decision on the total amount of liquidity to be allotted.

Single and multiple rate procedures

A further distinction applies to variable rate tenders. In auctions conducted through a "single rate" procedure, the marginal rate of allotment is applied to all satisfied bids. By contrast, if a "multiple rate" procedure is adopted, the allotment interest rate is equal to the interest rate offered for each individual bid amount.

Use of tender procedures in 1999 and 2000

From the beginning of 1999 to June 2000 the Eurosystem conducted its main refinancing operations as fixed rate tenders. From 27 June 2000, the main refinancing operations were conducted as variable rate tenders with a minimum bid rate using a multiple rate procedure. The reason for the change was severe overbidding in the fixed rate main refinancing operations, which resulted from the existence of a wide and persistent spread between money market interest rates and the fixed rate applied to the main refinancing operations in early 2000 (see Chart 4.1). This spread was, in turn, largely driven by market expectations of further increases in key ECB interest rates, especially in the spring of 2000. The spread between market rates and the ECB's main refinancing rate made it very attractive for banks to obtain funds from the central bank and led to very high bids by the banks. In a variable rate tender, by contrast, banks have no incentive to overbid, since they would have to pay a higher price if they wanted to obtain more liquidity.

Publication of liquidity needs

Upon switching to variable rate tenders, the Eurosystem also started to announce, each week, the estimated liquidity needs of the banking system for the period until the day before the settlement of the next main refinancing operation. The publication of this estimate assists counterparties in preparing their bids for the forthcoming main refinancing operation. Section 4.6 describes the factors which determine the liquidity needs of the banking system.

Longer-term refinancing operations

Longer-term refinancing operations

In addition to the weekly main refinancing operations, the Eurosystem also executes monthly longer-term refinancing operations with a three-month maturity. These operations aim at providing longer-term liquidity to the banking system. This is deemed useful in order to prevent all the liquidity in the money market from having to be rolled over every two weeks, and to give counterparties access to longer-term refinancing. Like the main refinancing operations, these longer-term refinancing operations are conducted as standard tenders in a decentralised

manner, and all counterparties fulfilling general eligibility criteria may participate (see Box 4.1).

Since it was not considered desirable for the Eurosystem to influence money market rates at more than one point along the maturity spectrum, the longer-term refinancing operations have been designed in a manner which ensures that the Eurosystem acts as a "rate taker" in these operations. In order not to blur the signal arising from the Eurosystem's main refinancing operations, longer-term refinancing operations are executed in the form of variable rate tenders with pre-announced allotment volumes. The Governing Council indicates in advance the volume to be allotted in forthcoming tenders, and aims to meet only part of the total liquidity needs of the banking system through these operations.

Eurosystem as a "rate taker"

On average, longer-term operations accounted for 26% of the amount outstanding of open market operations in 1999 and 2000. In the first two months of 1999 the longer-term refinancing operations were conducted as variable rate tenders using a single rate procedure. After March 1999 they were conducted as variable rate tenders using a multiple rate procedure.

Provision of additional liquidity

Fine-tuning operations

The Eurosystem may also carry out open market operations on an ad hoc basis, i.e. fine-tuning operations. The frequency and maturity of such operations are not standardised. Fine-tuning operations can be liquidity-absorbing or liquidity-providing. They aim at managing the liquidity situation and steering interest rates in the money market, in particular to smooth the effects on interest rates of unexpected liquidity fluctuations in the money market. Fine-tuning operations can take the form of reverse transactions, outright transactions, foreign exchange swaps and the collection of fixed-term deposits, all of which are described in Box 4.2. By the end of 2000 the Eurosystem had conducted only two fine-tuning operations.

Fine-tuning operations

In view of their purpose, fine-tuning operations are normally executed through "quick" tenders. These take one hour from their announcement to the communication of the allotment results. Fine-tuning operations can also be executed through bilateral procedures, where the Eurosystem conducts a transaction with one or a few counterparties without a tender.

Quick tenders and bilateral procedures

The potential need for rapid action in the event of unexpected market developments makes it desirable for the Eurosystem to retain a high degree of flexibility in the specification of fine-tuning operations. They are normally executed in a decentralised manner by the NCBs, but the Governing Council can decide whether, under exceptional circumstances, bilateral fine-tuning operations may be executed by the ECB. For operational reasons, only a limited number of selected counterparties may participate in fine-tuning operations.

High degree of flexibility

Structural operations

Structural operations

The operational framework also provides the Eurosystem with the possibility of conducting "structural operations". These operations would aim at adjusting the structural liquidity position of the Eurosystem vis-à-vis the banking system, i.e. the amount of liquidity in the market over the longer term. These operations could be conducted using reverse transactions, outright operations or the issuance of debt certificates (see Box 4.2). By the end of 2000 the Eurosystem had not conducted any structural operations. In principle, structural operations can be liquidity-providing or liquidity-absorbing operations and their frequency can be regular or non-regular. Structural operations could be executed through standard tenders and their maturity

Box 4.2

Types of open market transactions

Reverse transactions are the main open market instrument of the Eurosystem and can be used for all kinds of liquidity-providing open market operations. The Eurosystem has three other instruments available to it for the conduct of fine-tuning operations: outright transactions, foreign exchange swaps and the collection of fixed-term deposits. Finally, for structural operations the ECB may issue debt certificates (see Table 4.1).

1 Reverse transactions

Reverse transactions refer to operations where the Eurosystem buys or sells eligible assets under repurchase agreements or conducts credit operations against eligible assets provided as collateral. Reverse transactions are used for main refinancing operations and longer-term refinancing operations. In addition, the Eurosystem can use reverse transactions for structural and fine-tuning operations.

Where reverse transactions take the form of a repurchase agreement, the difference between the purchase price and the repurchase price corresponds to the interest due on the amount of money borrowed or lent over the maturity of the operation, i.e. the repurchase price includes the interest to be paid. The interest rate on a reverse transaction in the form of a collateralised loan is determined by applying the specified interest rate on the credit amount over the maturity of the operation.

2 Outright transactions

Outright open market transactions refer to operations where the Eurosystem buys or sells eligible assets outright on the market. Outright open market operations are only available for structural and fine-tuning purposes.

3 Foreign exchange swaps

Foreign exchange swaps executed for monetary policy purposes consist in simultaneous spot and forward transactions in euro against a foreign currency. They can be used for fine-tuning purposes, mainly in order to manage the liquidity situation in the market and steer interest rates.

4 Collection of fixed-term deposits

The Eurosystem may invite counterparties to place remunerated fixed-term deposits with the NCB in the Member State in which the counterparty is established. The collection of fixed-term deposits is envisaged only for fine-tuning purposes in order to absorb liquidity in the market.

5 Issuance of ECB debt certificates

The ECB may issue debt certificates with the aim of adjusting the structural position of the Eurosystem vis-à-vis the financial sector so as to create or enlarge a liquidity shortage in the market.

would not be standardised. Structural operations could be executed in a decentralised manner, and all counterparties fulfilling general eligibility criteria would be allowed to participate.

4.4 Minimum reserves

Description of the system

The ECB requires credit institutions to hold compulsory deposits on accounts with the NCBs: these are called "minimum" or "required" reserves. [4] The amount of required reserves to be held by each institution is determined by its reserve base. The reserve base of an institution is defined in relation to the elements of its balance sheet. Table 4.2 shows the main liability items included in the reserve base.

Required reserves and the reserve base

It should be highlighted here that liabilities vis-à-vis other credit institutions included in the list of institutions subject to the Eurosystem's minimum reserve system and liabilities vis-à-vis the ECB and the NCBs are not included in the reserve base.

Table 4.2

Credit institutions' liabilities included in the reserve base
(stock levels as at the end of December 2000; EUR billions)

(A) Liabilities to which a positive reserve ratio is applied	
Deposits (including overnight deposits, deposits with an agreed maturity of up to two years and deposits redeemable at a period of notice of up to two years)	5,711
Debt securities issued with a maturity of up to two years	137
Money market paper	187
Total (A)	6,035
(B) Liabilities to which a zero reserve ratio is applied	
Deposits (including deposits with an agreed maturity of over two years and deposits redeemable at a period of notice of over two years)	1,274
Debt securities issued with a maturity of over two years	2,234
Repurchase agreements	528
Total (B)	4,036
Total reserve base (A)+(B)	**10,071**

4 *The legal framework for the Eurosystem's minimum reserve system is based on Article 19 of the Statute of the ESCB. The details of the minimum reserve system are contained in several legal acts, the most important being Council Regulation (EC) No. 2531/98 concerning the application of minimum reserves by the European Central Bank and Regulation (EC) No. 2818/98 of the European Central Bank on the application of minimum reserves (ECB/1998/15), as amended.*

In order to determine an institution's reserve requirement, the reserve base is multiplied by a reserve ratio. The ECB applies a uniform positive reserve ratio to most of the items included in the reserve base. This reserve ratio was set at 2% at the start of Stage Three of EMU. Most of the short-term liabilities on credit institutions' balance sheets are subject to a positive reserve ratio. As can be seen from Table 4.2, neither long-term liabilities nor repurchase agreements are subject to a positive reserve ratio.

Reserve ratio

As noted above, the reserve requirement for each individual institution is calculated by applying the reserve ratios to the reserve base. Institutions can deduct a uniform lump-sum allowance from their reserve requirement. At the start of Stage Three of EMU they were entitled to deduct €100,000. This allowance is designed to reduce the administrative costs arising from managing very small reserve requirements.

Lump-sum allowance

In order to meet their reserve requirements, credit institutions have to hold balances on their current accounts with the NCBs. In this respect, the Eurosystem's minimum reserve system enables counterparties to make use of averaging provisions. This means that compliance with reserve requirements is determined on the basis of the average of the daily balances on the counterparties' reserve accounts over a one-month reserve maintenance period. Maintenance periods start on the 24th calendar day of each month and end on the 23rd calendar day of the following month.

Averaging provisions and the reserve maintenance period

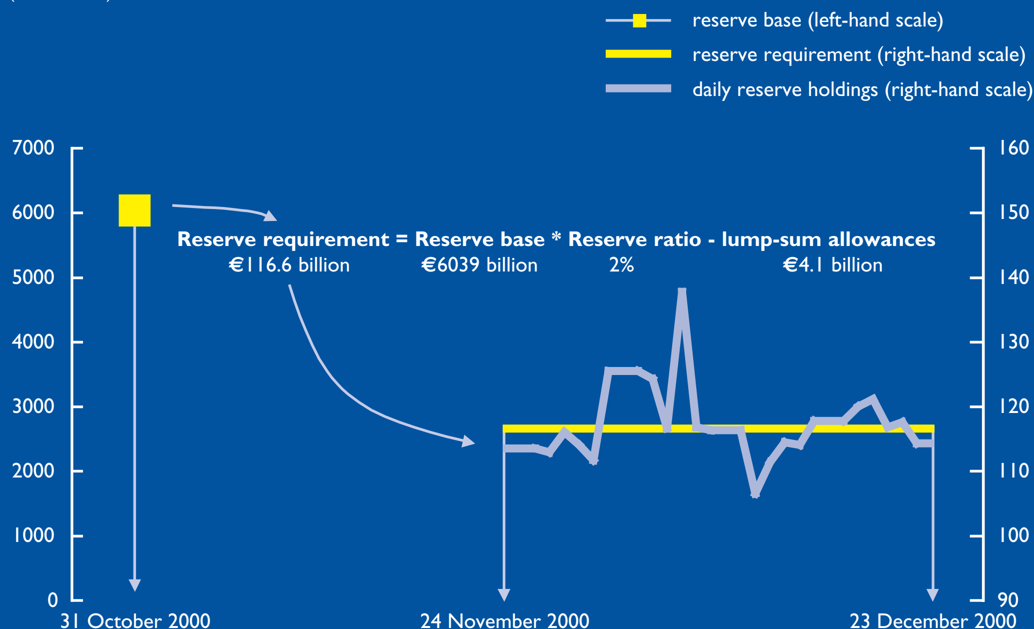
The Eurosystem has aimed to ensure that the minimum reserve system neither puts a burden on the banking system in the euro area nor hinders the efficient allocation of resources. For this reason, credit institutions' holdings of required reserves are remunerated. The remuneration corresponds to the average, over the maintenance period, of the marginal rate (weighted according to the number of calendar days) of the main refinancing operations. This rate is therefore very close to short-term money market interest rates.

Remuneration of required reserves

Chart 4.2 shows an example of the determination of the Eurosystem's reserve requirement, for the maintenance period from 24 November to 23 December 2000. In this example, the reserve base of the credit institutions is determined by the liabilities taken from their balance sheets as at 31 October 2000. By applying the 2% reserve ratio to the relevant reserve base and deducting the lump-sum allowance, the reserve requirements are determined for the maintenance period starting on 24 November and ending on 23 December. The blue line in Chart 4.2 indicates how averaging provisions work in the Eurosystem's minimum reserve system. Credit institutions' current account holdings can fluctuate freely around the reserve requirements, but the average current account holdings must at least be equal to the reserve requirement over the whole maintenance period. In the example, the average credit institution holdings on current accounts with the Eurosystem amounted to €117.2 billion, implying excess reserves of €0.6 billion over the reserve requirements of €116.6 billion.

Determination of reserve requirements

Chart 4.2



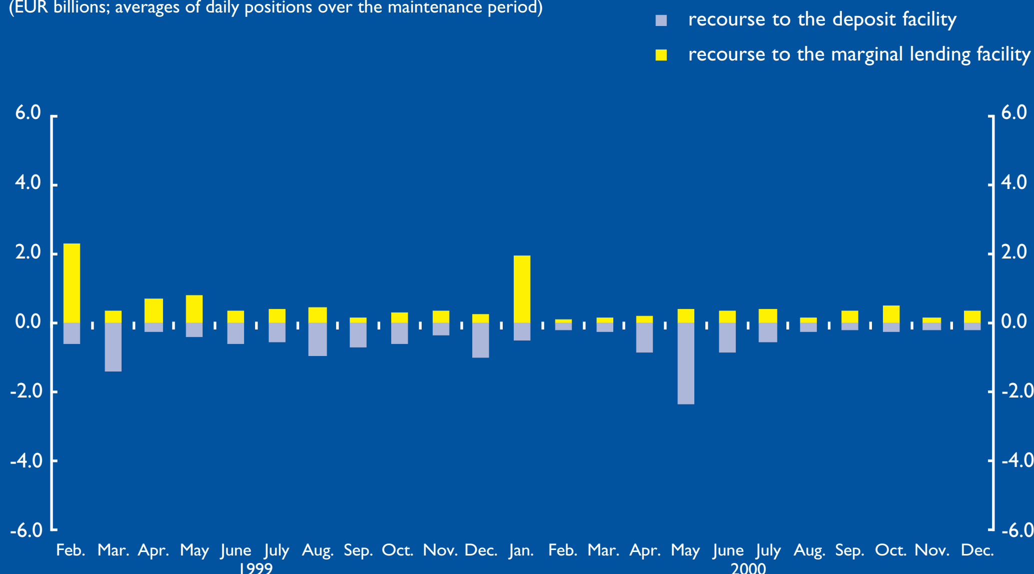
Source: ECB.

Functions

The first key function of the minimum reserve system is to stabilise money market interest rates. This function is performed by the averaging provision. The averaging provision allows credit institutions to smooth out daily liquidity fluctuations (e.g. those arising from fluctuations in the demand for banknotes), since transitory reserve imbalances can be offset by opposite reserve imbalances within the same maintenance period. The averaging provision also implies that institutions can profit from lending in the market and run a reserve deficit whenever the shortest money market rates are above those expected to prevail for the remainder of the maintenance period. In the opposite scenario, they can borrow in the market and run a reserve surplus. In theory, this "intertemporal arbitrage" should ensure equality throughout the maintenance period between the current level and the expected level of the shortest money market rates at the end of the maintenance period. This mechanism stabilises the overnight interest rate during the maintenance period and makes it unnecessary for the central bank to intervene frequently in the money market. The averaging provision works very smoothly during the maintenance period. However, at the end of the period, the reserve requirement becomes binding and banks can no longer transfer a liquidity surplus or deficit into the future. This explains the spikes in the EONIA towards the end of each maintenance period, as can be seen from Chart 4.1.

Stabilisation of money market interest rates

Chart 4.3



Source: ECB.
Note: The x axis refers to the month in which a maintenance period ended (note that the first maintenance period ended only in February 1999).

Enlargement of the structural liquidity shortage

A second important function assigned to the minimum reserve system is the enlargement of the structural liquidity shortage of the banking system. The need for credit institutions to hold reserves with the NCBs contributes to increasing the demand for central bank refinancing, which, in turn, makes it easier for the ECB to steer money market rates through regular liquidity-providing operations.

4.5 Standing facilities

Marginal lending and deposit facilities

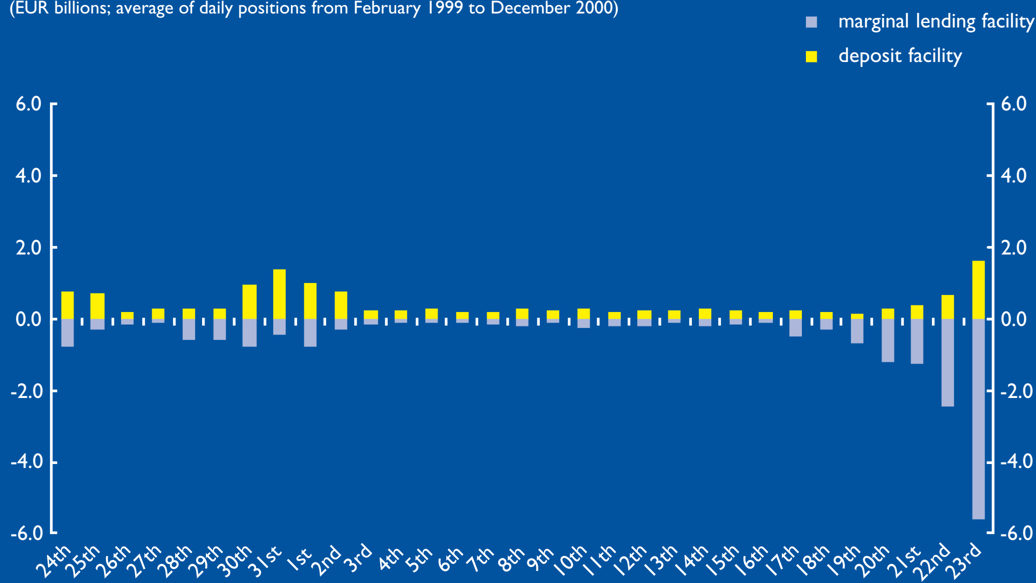
As mentioned above, the Eurosystem also implements monetary policy by setting the interest rates on its standing facilities. Standing facilities provide or absorb liquidity with an overnight maturity on the initiative of counterparties. Two standing facilities are available to eligible counterparties: the marginal lending facility and the deposit facility. The incentive for banks to use standing facilities is significantly reduced by the rates applied to them, which are normally unfavourable when compared with market rates.

Important in exceptional circumstances…

Chart 4.3 shows the average daily use of the standing facilities in 1999 and 2000. This mostly remained below €1 billion, demonstrating that they serve only to provide and absorb liquidity in exceptional circumstances. The introduction of the euro at the beginning of 1999 and the transition to the year 2000 were examples of such exceptional circumstances, and serve to explain the relatively high level of recourse to the marginal lending facility in the maintenance periods ending in February 1999 and January 2000 respectively.[5]

5 *The first maintenance period was longer than normal, starting on 1 January 1999 and ending on 23 February 1999.*

Chart 4.4



Source: ECB.

Chart 4.4 reflects the typical pattern of recourse to the standing facilities within a reserve maintenance period. As can be seen from the chart, the use of the standing facilities is largest at the end of the reserve maintenance period.[6] This is due to the averaging mechanism of the minimum reserve system, which allows credit institutions to run daily liquidity deficits and surpluses and either bring forward the fulfilment of reserve requirements or postpone it until the end of the maintenance period. Reserve requirements become binding only on the last day of the maintenance period when liquidity deficits or surpluses can no longer be compensated by opposite imbalances within the same maintenance period.

…and at the end of the reserve maintenance period

4.6 Central bank liquidity and liquidity needs of the banking system

To sum up, the operational framework is the set of instruments and procedures which a central bank uses to steer interest rates, signal monetary policy intentions and manage liquidity in the money market. The euro area banking system – due to its need for banknotes and the obligation to fulfil reserve requirements, in particular – has an aggregate liquidity deficit and is reliant on refinancing from the Eurosystem. In this environment, the Eurosystem acts as a supplier of liquidity and can thus steer money market interest rates and transmit monetary policy impulses across the euro area.

Eurosystem as a supplier of liquidity

6 *Chart 4.4 also reflects a relatively high level of recourse around the end of the month. However, this result is greatly influenced by the special circumstances that occurred during the transition to the year 2000.*

Consolidated balance sheet of the Eurosystem

The interaction between the Eurosystem and the banking system can be illustrated with the help of the consolidated balance sheet of the Eurosystem. Table 4.3 presents a simplified form of a standardised central bank balance sheet.

Assets

On the assets side, there are three main liquidity-providing items: "refinancing to credit institutions", "marginal lending facility" and "net foreign assets". "Refinancing to credit institutions" refers to the amount outstanding of liquidity-providing open market operations. In the case of the Eurosystem, these operations always include the main and longer-term refinancing operations. Liquidity-providing fine-tuning operations and structural operations would also be included under this item. The "marginal lending facility" refers to overnight credit provided by the central bank to those

Table 4.3

Central bank balance sheet structure

A standardised central bank balance sheet:

ASSETS	**LIABILITIES**
Refinancing to credit institutions	Credit institutions' holdings on current accounts (reserves)
Marginal lending facility	Deposit facility
Net foreign assets	Banknotes in circulation
	Government deposits
	Other factors (net)

Can be rearranged as follows:

LIQUIDITY SUPPLY THROUGH MONETARY POLICY OPERATIONS

"refinancing to credit institutions"

plus "marginal lending facility"

minus "deposit facility"

equals

AUTONOMOUS FACTORS

"banknotes in circulation"

plus "government deposits"

minus "net foreign assets"

plus "other factors (net)"

plus

RESERVES

"credit institutions' holdings on current accounts"

credit institutions which have recourse to this facility. "Net foreign assets" refers to assets in foreign currency owned by the central bank, net of any central bank liabilities denominated in foreign currency.

Liabilities

On the liabilities side, there are five main items. These are "credit institutions' holdings on current accounts", the "deposit facility", "banknotes in circulation", "government deposits" and "other net factors". "Credit institutions' holdings on current accounts" refers to balances owned by credit institutions and held with the central bank in order to meet settlement obligations from interbank transactions and to fulfil reserve requirements (also referred to merely as "reserves"). The "deposit facility" refers to the total overnight recourse to this standing facility. "Banknotes" indicates the quantity of banknotes put into circulation by the central bank at the request of credit institutions. This is usually the largest item on the liabilities side. "Government deposits" reflects the existence of current account balances held by national Treasuries with NCBs. Finally, "other net factors" is a balancing item encompassing the remaining items on the balance sheet.

Liquidity supply and demand

From an accounting point of view, the respective amounts of total assets and liabilities must always be equal. In order to understand how a central bank operates, it is convenient to split the balance sheet into three elements, as indicated by the lower three panels of Table 4.3. As shown in the table, the net amount of liquidity that is actually supplied by the central bank to credit institutions is the sum of two elements. The first element is made up of the "autonomous factors" (the sum of "banknotes in circulation" plus "government deposits" minus "net foreign assets" plus "other factors (net)", which is the net effect of the remaining balance sheet items affecting the money market liquidity). These factors influence the liquidity of the banking system and are labelled "autonomous" in central bank jargon because they are not normally the result of the use of monetary policy instruments.[7] The second element is made up of credit institutions' "reserves" ("credit institutions' holdings on current accounts"). The sum of the "autonomous factors" plus the "reserves" equals the supply of liquidity through monetary policy operations (the sum of "refinancing to credit institutions" plus "marginal lending facility" minus "deposit facility").

Contributions of the main items

Moving from this schematic analysis to the Eurosystem's actual balance sheet, Table 4.4 shows the contributions of the main items to the banking system's liquidity from 24 November to 23 December 2000. The bulk of the liquidity was provided through the main refinancing operations. Additional liquidity was provided through the longer-term refinancing operations. Standing facilities and other operations, such as fine-tuning operations, normally have only a marginal impact on the banking system's liquidity.

Autonomous factors

The second part of Table 4.4 shows the "autonomous factors". The liquidity-absorbing effect of autonomous factors is mainly generated by banknotes in circulation and government deposits with the Eurosystem. Banknotes in circulation absorb the banking system's liquidity because they have to be

7 *Some of the autonomous factors are not under the control of the monetary authorities ("banknotes in circulation" and "government deposits"). Other factors, such as "net foreign assets", can be controlled by the monetary authorities, but transactions in these assets are not normally related to monetary policy operations (except in the case of foreign exchange swaps; see Box 4.2).*

Table 4.4

Contributions to the banking system's liquidity

(EUR billions; daily average stocks from 24 November to 23 December 2000)

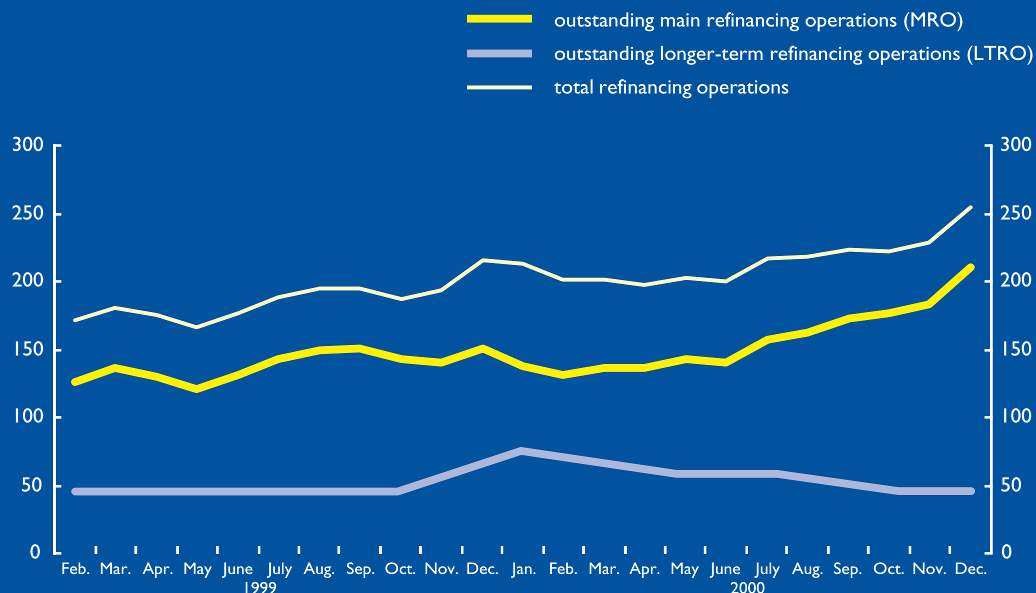
	Liquidity providing (assets)	Liquidity absorbing (liabilities)	Net contribution
Monetary policy operations of the Eurosystem			
Main refinancing operations	210.4	–	+ 210.4
Longer-term refinancing operations	45.0	–	+ 45.0
Standing facilities	0.4	0.4	+ 0.0
Other operations[1]	0.0	0.0	0.0
TOTAL (a)	**255.7**	**0.4**	**255.4**
Autonomous factors affecting the banking system's liquidity			
Banknotes in circulation	–	360.4	- 360.4
Government deposits with the Eurosystem	–	61.1	- 61.1
Net foreign assets	394.4	–	+ 394.4
Other factors (net)	–	111.1	- 111.1
TOTAL (b)	**394.4**	**532.6**	**- 138.2**
Reserves = Credit institutions' holdings on current accounts with the Eurosystem			
Required reserves **(c)**			116.6
Excess reserves **(d)**			0.6
TOTAL (a)+(b) = (c)+(d)			**117.2**

Source: ECB.

1) Excludes outright operations as well as the issuance of debt certificates by NCBs in Stage Two of EMU and outstanding over the period considered in the table.

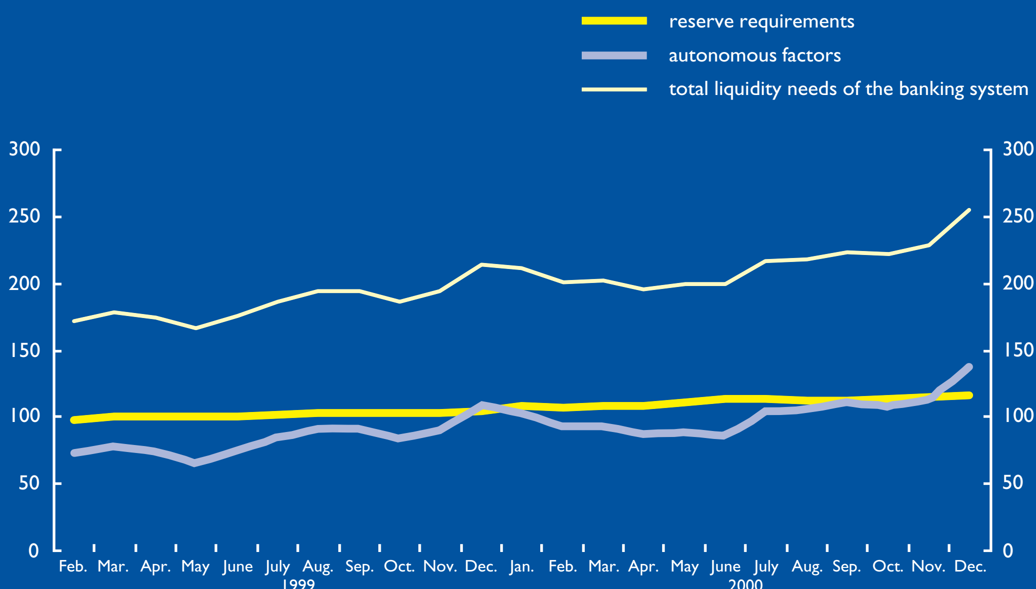
obtained from the central bank, and credit institutions have to borrow funds from the central bank because of this. There is also a counter-effect on the banking system's liquidity relating to the net foreign assets held by the Eurosystem. Purchases of foreign assets by the Eurosystem inject liquidity into the banking system and reduce the need for liquidity-providing monetary policy operations. Required reserves have a liquidity-absorbing effect which is similar in size to that of all the autonomous factors taken together. The difference between credit institutions' holdings on current accounts with the Eurosystem and reserve requirements makes up the "excess reserves".

Chart 4.5



Source: ECB.

Chart 4.6



Source: ECB.

Charts 4.5 and 4.6 show how the main liquidity-providing and liquidity-absorbing factors developed in 1999 and 2000. Chart 4.5 shows that the bulk of the liquidity was provided through the main refinancing operations, reflecting the key role played by this monetary policy instrument. Additional liquidity was provided through the longer-term refinancing operations. As can be seen from Chart 4.5, this amount ranged between €45 billion and €75 billion over the period under consideration.

Relative importance of liquidity-providing factors

Chart 4.6 shows the development of the two main factors, which create a structural liquidity deficit in the banking system. Reserve requirements have usually accounted for more than half of the total liquidity needs of the banking system. The total liquidity-absorbing effect of autonomous factors has increased over time to reach almost the same level as reserve requirements at the end of the period under consideration.

Relative importance of liquidity-absorbing factors

4.7 Experience in 1999 and 2000

The Eurosystem's operational framework has been functioning well since the start of 1999. The operational framework has allowed the ECB to steer liquidity conditions and short-term interest rates in a smooth fashion. The volatility of short-term interest rates in the euro area money market remained lower than in almost any other money market in the first two years of Stage Three of EMU. This low volatility of short-term money market rates was achieved without almost any recourse to fine-tuning operations, i.e. only with a combination of a minimum reserve system with an averaging provision and weekly open market operations. Stable money market conditions are helpful for the efficient transmission of monetary policy to the economy. In addition, they reflect a high degree of credibility of the operative and liquidity management capabilities of the central bank.

Low volatility of short-term interest rates

The conduct of fixed rate tender operations in the main refinancing operations until June 2000 facilitated the clear signalling of the monetary policy stance. This positive assessment on clear signalling has also been valid for the variable rate tender procedure with a minimum bid rate applied as from June 2000. This system worked well, as indicated by the relatively small spread between the marginal rate of allotment and the minimum bid rate. Moreover, the volatility of short-term money market rates has been kept as low as during the period of fixed rate tenders.

Clear signalling of the monetary policy stance

Finally, the operational framework – with both weekly tenders with a two-week maturity and monthly tenders with a three-month maturity – has met the objectives of both providing longer-term liquidity to credit institutions and providing the Eurosystem with sufficient flexibility to steer liquidity developments with adequate precision in the short term. The operational framework has also shown a high degree of flexibility in adapting to changing financial environments. This was highlighted by a comparison of the relatively far-reaching measures taken by many central banks worldwide in preparation for the transition to the new millennium with the relatively minor amendments made by the Eurosystem in this context.

Flexible operational framework

5 Monetary policy decisions in 1999 and 2000

This chapter illustrates how monetary policy was conducted in the first two years of Stage Three of EMU. In April 1999, amid low inflationary pressures, the Governing Council decided to cut its main refinancing rate from 3% to 2.5%. After the summer of 1999, however, the situation gradually changed. Monetary growth continued to be above the reference value and at the same time, mainly as a result of adverse influences from oil prices and the exchange rate of the euro, price pressures increased. In addition, real GDP growth remained strong. In order to maintain price stability, from November 1999 to October 2000 the Governing Council increased the key ECB interest rates by a total of 225 basis points.

5.1 Main developments

Early 1999

Transfer of monetary policy to the ECB

The convergence process leading to Stage Three of EMU was successfully completed when the ECB assumed responsibility for monetary policy in the euro area on 1 January 1999. Price stability had been achieved, thus allowing the Governing Council to maintain interest rates at very low levels. The first interest rate on the main refinancing operations (see Chapter 4 for details on monetary policy implementation) was 3%, with the rates on the marginal lending and deposit facilities set at 4.5% and 2% respectively. These rates had been announced officially on 22 December 1998. They followed a co-ordinated reduction of key interest rates by the NCBs of the countries adopting the euro. This action had been decided upon earlier in December 1998, completing the process of convergence in official interest rates that took place in the run-up to Stage Three.

A narrow interest rate corridor to smooth the transition

At the start of Stage Three, as a temporary measure to smooth the transition to a single money market, the Governing Council adopted a "narrow corridor" for short-term market interest rates. From 4 to 21 January 1999 the rates on the marginal lending and deposit facilities were set at 3.25% and 2.75% respectively. These transitional arrangements expired on 22 January 1999, at which point the rates on the standing facilities decided in December became effective (see Chart 4.1).

Downward risks to price stability in early 1999

In the first quarter of 1999 price developments remained very subdued. In January and February HICP inflation remained at its December 1998 level of 0.8% (see Chart 5.3). In this environment of low inflation, signs emerged that the slowdown in economic activity in the euro area might be more pronounced than anticipated in late 1998. The slowdown was mainly a consequence of weaker external demand stemming from the Asian crisis in late 1997 and the drop in confidence that followed the international market turmoil after the Russian crisis in the summer of 1998. Real GDP growth weakened significantly in the last quarter of 1998 and export growth turned negative. Therefore, it became increasingly clear in early 1999 that risks to price stability in the medium term were on the downside.

However, the monetary policy reaction to these downside risks to price stability needed to take into account the fact that some indicators appeared to point in the opposite direction in early 1999. In particular, the three-month average of the annual growth rates of M3 for the period from December 1998 to February 1999 was above the reference value for M3 growth of 4½% (see Chart 5.1). Credit to the private sector was growing fast, at a rate of around 10% per annum in early 1999, which was difficult to reconcile with the signs of weaker economic activity (see Chart 5.2). Furthermore, despite the economic slowdown, consumer confidence remained comparatively high. Finally, oil prices started to rise as from mid-February, and the euro depreciated in effective terms in the first few months of the year (see Chart 5.4), two factors which also exerted some upward pressure on prices.

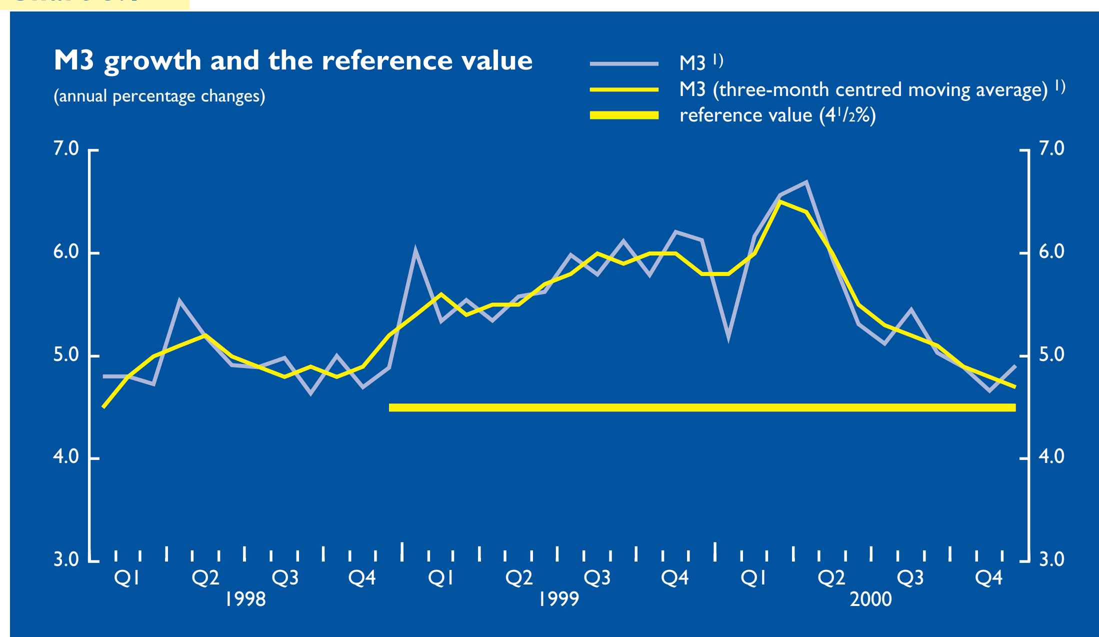
M3 data likely to have been affected by specific factors

The assessment of monetary developments at the start of 1999 was further complicated by uncertainty over how monetary aggregates were affected during the changeover to Stage Three of EMU. In fact, it was considered likely that the sharp increase in the stock of M3 in January 1999 could have been due to specific factors such as changes in the statistical reporting systems or the move to the new minimum reserve system.

Interest rate cut in April 1999

All in all, given this uncertainty and the only modest deviation of M3 from the reference value, the Governing Council did not regard monetary developments as implying upward risks to price stability at that time. Therefore, in an environment where current inflation rates were significantly

Chart 5.1



Source: ECB.

1) Series adjusted for non-euro area resident holdings of money market fund shares/units.

below the upper limit of the ECB's definition of price stability and in view of the downward pressures likely to affect future price developments as a result of weakening economic activity, the Governing Council decided on 8 April 1999 to reduce the main refinancing rate by 50 basis points to 2.5%. Simultaneously, the Governing Council lowered the rate on the marginal lending facility to 3.5% and that on the deposit facility to 1.5%, thereby establishing a symmetric interest rate corridor around the rate on the main refinancing operations. These decisions were deemed an appropriate precautionary measure to preserve price stability in the medium term.

Second half of 1999

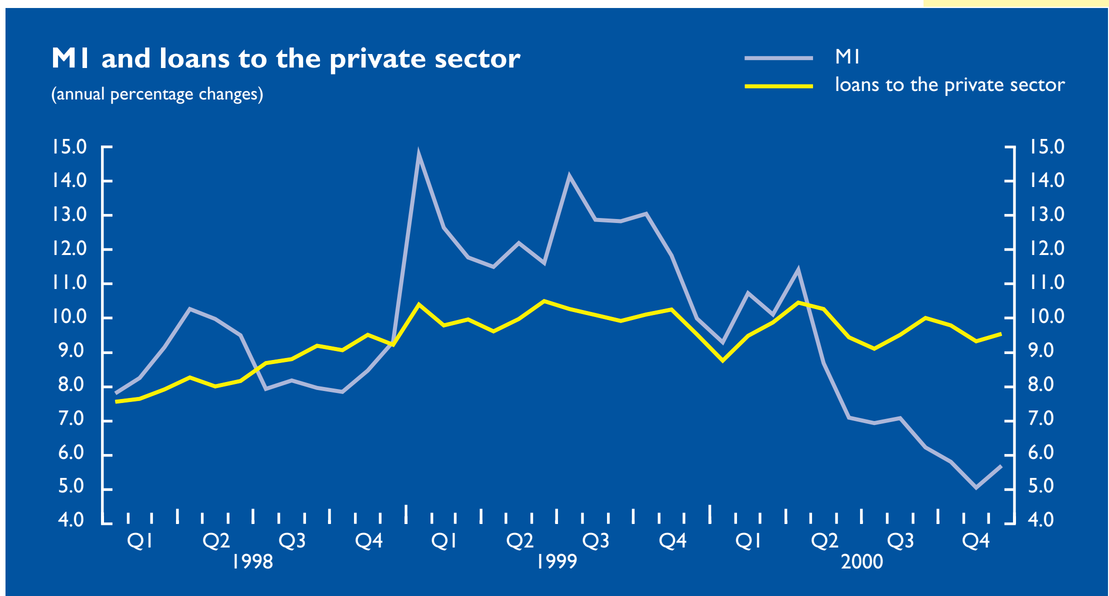
Gradual improvement in the economic environment…

The economic environment changed gradually in subsequent months. Over the summer of 1999, the information on economic activity in the euro area increasingly indicated that the downward risks to price stability were receding. The external environment continued to improve, as economic activity in several emerging market economies showed more and more signs of stabilising and even accelerating. The US economy continued to expand at a robust pace. Overall, it gradually became more evident that economic growth in the euro area was set to accelerate significantly in the second part of 1999 and in 2000.

…and a protracted monetary expansion…

Monetary and credit aggregates in the course of 1999 tended to show that monetary conditions in the euro area were not standing in the way of the economic recovery. M3 growth at the start of the year accelerated temporarily and then increased in the course of the summer to well in excess of the reference value – the three-month moving average gradually rose to almost 6.0%. Even allowing for the exceptional developments at the very beginning

Chart 5.2



Source: ECB.

of 1999, a protracted monetary expansion was evident. Meanwhile, credit to the private sector continued to expand at a high rate of around 10%.

…led to an interest rate increase in November 1999…

The effective exchange rate of the euro weakened further in the summer months and oil prices continued to rise. Overall, the information coming from the evolution of monetary aggregates, financial markets and other economic indicators indicated that downside risks to price stability were no longer present. On the basis of such evidence, it was clear that the factors which triggered the precautionary interest rate reduction of April 1999 were no longer relevant. Therefore, on 4 November 1999, the Governing Council decided to increase the key interest rates by 50 basis points. The rate on the main refinancing operations was thus raised to 3.0%, while the rates on the marginal lending and deposit facilities were increased to 4.0% and 2.0% respectively.

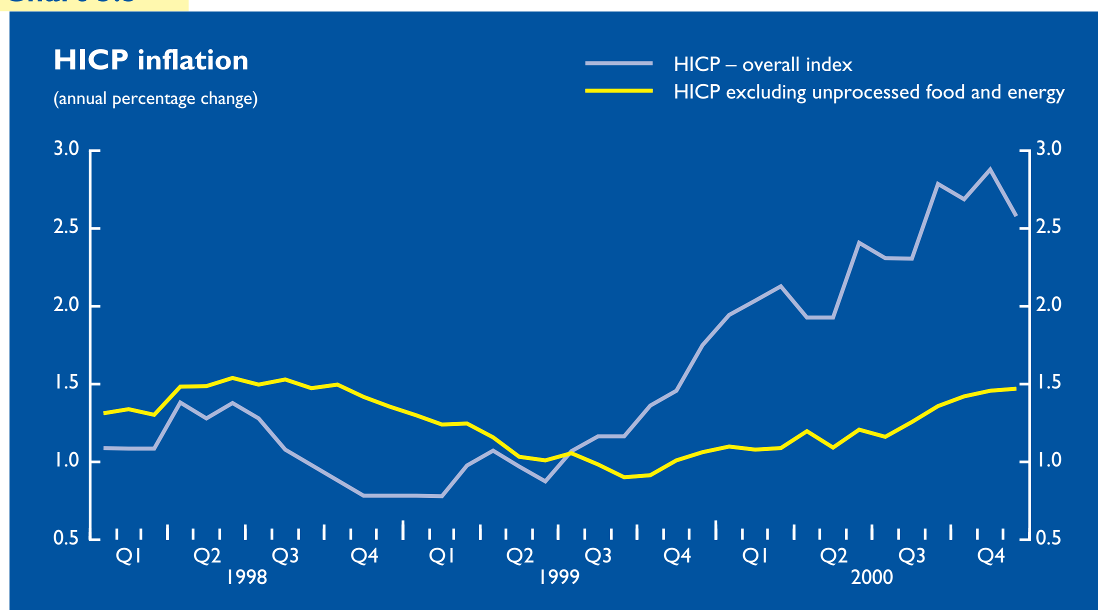
…which aimed to maintain inflation expectations safely below 2%

This change in the stance of monetary policy was decided in order to prevent the ample liquidity, as indicated by money and credit growth, from translating into upward pressures on prices over the medium term, and to maintain inflation expectations safely below 2%. The size of the increase was also aimed at removing uncertainty about the short-term course of monetary policy, and thus help to reduce any uncertainty premia in the financial markets in the transition to the year 2000.

First half of 2000

In the first half of 2000 the information stemming from the variables assessed under the first pillar of the ECB's monetary policy strategy increasingly indicated upward risks to price stability. The three-month average of annual

Chart 5.3



Source: Eurostat.

M3 growth during the last quarter of 1999 (which was known at the end of January 2000) was around 6%, significantly above the reference value of 4½%, and peaked at around 6.5% in spring 2000. The protracted upward deviation of M3 growth from the reference value, at a time when inflation remained very low, raised concerns as it implied that abundant liquidity had been progressively accumulated in late 1999 and the first half of 2000. Furthermore, the high growth of M3 was accompanied by rates of M1 growth of 10% or above.

M3 growth above the reference value…

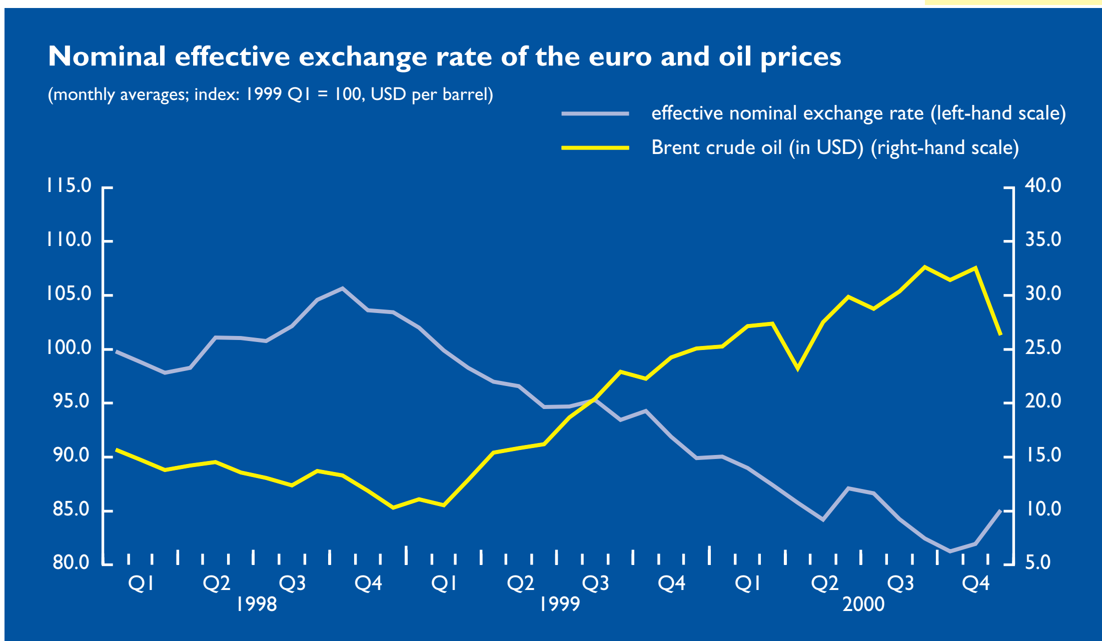
The information available in the first half of 2000 under the second pillar of the monetary policy strategy also pointed increasingly to upward risks to price stability. Data on real GDP growth and other indicators, including industrial production and surveys of industrial and consumer confidence, indicated that economic activity had been expanding at a robust pace in early 2000 and was set to continue along that path (see Chart 5.5). The external environment was also supportive of growth in the euro area. The recovery in the economies of East Asia and Latin America continued, while there were no signs of a slowdown in the United States. These expectations were fulfilled in the subsequent months. External forecasts for economic activity were continuously revised upwards, supported by data and surveys on developments in economic activity and by the steady brightening of the international environment.

…the economic recovery…

Developments in import prices implied increasing price pressures in the euro area. Oil prices rose almost continuously. The exchange rate of the euro depreciated further during this period. The Governing Council took the view

…and the existence of import price pressures…

Chart 5.4



Sources: Eurostat and the Financial Times.

that such a prolonged phase of depreciation combined with the significant oil price increase could have medium-term inflationary consequences in a period of strong economic growth, as this could give rise to second-round effects on consumer prices via wage increases. This consideration was particularly relevant at the time because economic activity in the euro area was picking up strongly.

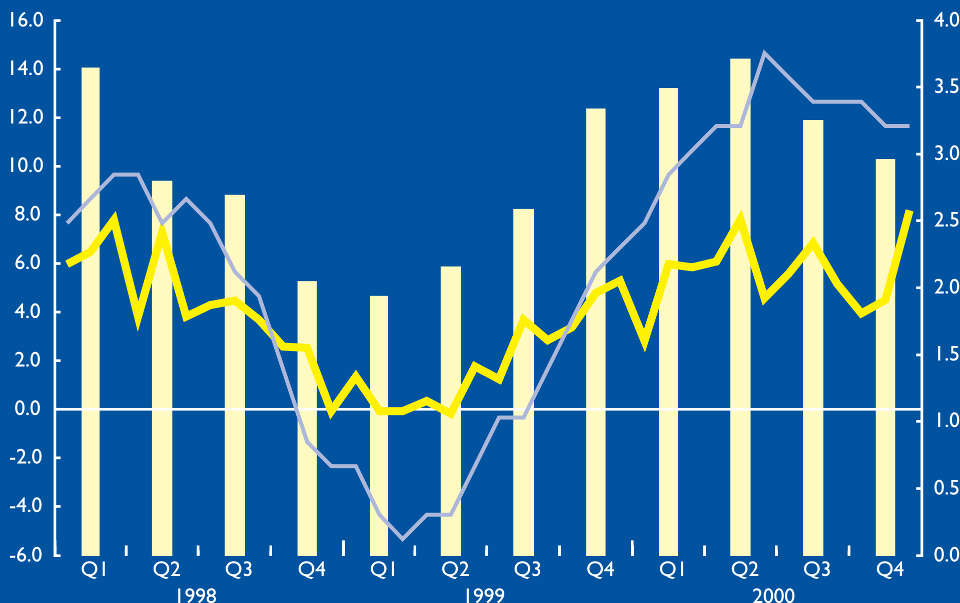
…were countered by several interest rate increases

Both pillars of the strategy thus provided ample evidence that further increases in interest rates were needed. The Governing Council decided to raise the key ECB interest rates on 3 February, 16 March and 27 April 2000, each time by 25 basis points. In addition, on 8 June 2000, interest rates were raised by 50 basis points.

Switch to variable rate tender

Starting from the operation settled on 28 June 2000, the main refinancing operations were conducted as variable rate tenders with the previous announcement of a minimum bid rate, which at the time was set at 4.25%. This switch to variable rate tenders was a response to the severe overbidding which developed in the context of the fixed rate tender procedure (see

Chart 5.5



Sources: Eurostat and European Commission Business and Consumer Surveys.
1) Deviations from the average since January 1985.

Chapter 4). The ECB explained that the minimum bid rate substituted the rate at the fixed rate tenders as a "key" rate which should signal the ECB's monetary policy stance.

Second half of 2000

The economic situation changed slightly in the course of the summer of 2000, although upward risks to price stability continued to prevail. The growth in monetary aggregates gradually slowed down, especially for the most liquid components of M3, reflecting the tightening of monetary policy. Total credit growth in the euro area also declined. These trends became evident in the course of the summer, when data for May 2000 and for subsequent months were released. However, the fact that M3 was growing above the reference value was still a cause for concern.

M3 growth started to moderate, but remained above the reference value

Turning to the second pillar, from June 2000 onwards, oil prices pushed HICP inflation in the euro area above 2%, the upper boundary of the definition of price stability in the medium term. Forecasts for economic activity continued to be revised upwards in the third quarter of 2000. Inflation forecasts extending until 2002 were also revised upwards until at least the third quarter.

HICP above 2% in the euro area…

During the summer of 2000 the perception strengthened that oil prices would not decline. It became increasingly evident that consumer price inflation would remain above 2% for longer than earlier anticipated, increasing the risk that second-round effects via wages would emerge. These concerns were compounded by the renewed weakness of the exchange rate of the euro from mid-June onwards.

…increased the risk of second round effects via wages

As risks to price stability were still on the upside, the Governing Council decided to raise the minimum bid rate on the main refinancing operations, the marginal lending facility rate and the deposit facility rate by 25 basis points each, on 31 August and again on 5 October 2000. These decisions left the minimum bid rate on the main refinancing operations at 4.75% and the rates on the deposit and marginal lending facilities at 3.75% and 5.75% respectively.

The Governing Council decided to increase interest rates further

Over the summer of 2000 the exchange rate of the euro moved out of line with the sound fundamentals of the euro area. The potential implications for the world economy were evident. The depreciation of the euro was addressed at the level of the G7 on 22 September 2000, at the initiative of the ECB, in the form of a concerted intervention in the foreign exchange markets by the monetary authorities of the United States, Japan, the United Kingdom and Canada. The ECB intervened again in early November, acting to counter the threats that the depreciation posed to price stability in the euro area.

Intervention in the foreign exchange markets

In late 2000 the moderation in M3 growth continued – the increase in key ECB interest rates from November 1999 appeared to have dampened demand for the most liquid components of M3. While growth in credit to the private sector remained relatively high, total credit growth to euro area residents declined significantly between April and October 2000. In parallel, most indicators suggested that economic growth in the euro area would continue

Key ECB interest rates unchanged in late 2000

at a robust, albeit slower, pace. However, the global expansion showed signs of moderation, giving rise to some uncertainty about the growth prospects of the euro area. In this environment the key ECB interest rates were kept unchanged until the end of 2000.

5.2 A first assessment

The success of the monetary policy of the ECB can only be gauged in terms of maintaining price stability. The decision to lower key ECB interest rates in April 1999 was taken to counter downward risks to price stability. The decision to increase key ECB interest rates by 225 basis points between November 1999 and October 2000 was taken to counter upward risks to price stability. In all its actions taken, the Governing Council demonstrated the strength of its commitment to maintaining price stability in the medium term. Given the lags in the transmission of monetary policy decisions to price developments, it was too early at the time of finalising this publication to fully assess the effectiveness of the monetary policy decisions taken in 1999 and 2000. However, some provisional conclusions can be drawn.

ECB acted to counter risks to price stability

HICP inflation remained at low levels in 1999. In 2000 most of the pronounced increase was caused by an unanticipated rise in import prices, mainly due to exchange rate and oil price developments. As discussed in Chapter 3, such short-term price fluctuations cannot be avoided, as the effects of monetary policy take time to influence the economy and monetary policy needs to be geared to the medium term. It was therefore crucial in 2000 for monetary policy to prevent any spillover from the short-term, oil price-induced changes in inflation to medium-term inflation expectations. The Governing Council had to demonstrate clearly its determination to act to maintain price stability in the medium term.

Short-term fluctuations in inflation could not be avoided

The evolution of long-term interest rates in the euro area in 1999 and 2000 indicated that the financial markets generally expected medium-term price developments to remain in line with the definition of price stability. Bond market data, in particular, indicated that the decisions taken by the Governing Council were perceived to be consistent with the price-stability objective. Long-term inflation expectations implied by French index-linked bonds remained below 2% in 1999 and 2000. Inflation forecasts available in the first two years of Stage Three also pointed to consistent expectations that price stability in the euro area would be maintained.

Inflation expectations below 2% in the medium term…

These are positive indications that the ECB was able to affirm its credibility during the first two years in which it conducted monetary policy. Despite inflationary pressures caused by major external shocks, they show that the ECB was able to convince the public and markets that it intended to honour its commitment to maintain price stability in the medium term.

…are indications of the ECB's credibility

Annex I

Excerpts from the Treaty establishing the European Community

Part one

Principles

Article 2 (ex Article 2)

The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing common policies or activities referred to in Articles 3 and 4, to promote throughout the Community a harmonious, balanced and sustainable development of economic activities, a high level of employment and of social protection, equality between men and women, sustainable and non-inflationary growth, a high degree of competitiveness and convergence of economic performance, a high level of protection and improvement of the quality of the environment, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States.

Article 3 (ex Article 3)

1. For the purposes set out in Article 2, the activities of the Community shall include, as provided in this Treaty and in accordance with the timetable set out therein:

(a) the prohibition, as between Member States, of customs duties and quantitative restrictions on the import and export of goods, and of all other measures having equivalent effect;

(b) a common commercial policy;

(c) an internal market characterised by the abolition, as between Member States, of obstacles to the free movement of goods, persons, services and capital;

(d) measures concerning the entry and movement of persons as provided for in Title IV;

(e) a common policy in the sphere of agriculture and fisheries;

(f) a common policy in the sphere of transport;

(g) a system ensuring that competition in the internal market is not distorted;

(h) the approximation of the laws of Member States to the extent required for the functioning of the common market;

(i) the promotion of coordination between employment policies of the Member States with a view to enhancing their effectiveness by developing a coordinated strategy for employment;

(j) a policy in the social sphere comprising a European Social Fund;

(k) the strengthening of economic and social cohesion;

(l) a policy in the sphere of the environment;

(m) the strengthening of the competitiveness of Community industry;

(n) the promotion of research and technological development;

(o) encouragement for the establishment and development of trans-European networks;

(p) a contribution to the attainment of a high level of health protection;

(q) a contribution to education and training of quality and to the flowering of the cultures of the Member States;

(r) a policy in the sphere of development cooperation;

(s) the association of the overseas countries and territories in order to increase trade and promote jointly economic and social development;

(t) a contribution to the strengthening of consumer protection;

(u) measures in the spheres of energy, civil protection and tourism.

2. In all the activities referred to in this Article, the Community shall aim to eliminate inequalities, and to promote equality, between men and women.

Article 4 (ex Article 3a)

1. For the purposes set out in Article 2, the activities of the Member States and the Community shall include, as provided in this Treaty and in accordance with the timetable set out therein, the adoption of an economic policy which is based on the close coordination of Member States' economic policies, on the internal market and on the definition of common objectives, and conducted in accordance with the principle of an open market economy with free competition.

2. Concurrently with the foregoing, and as provided in this Treaty and in accordance with the timetable and the procedures set out therein, these activities shall include the irrevocable fixing of exchange rates leading to the introduction of a single currency, the ECU, and the definition and conduct of a single monetary policy and exchange-rate policy the primary objective of both of which shall be to maintain price stability and, without prejudice to this objective, to support the general economic policies in the Community, in accordance with the principle of an open market economy with free competition.

3. These activities of the Member States and the Community shall entail compliance with the following guiding principles: stable prices, sound public finances and monetary conditions and a sustainable balance of payments.

Article 8 (ex Article 4a)

A European System of Central Banks (hereinafter referred to as 'ESCB') and a European Central Bank (hereinafter referred to as 'ECB') shall be established in accordance with the procedures laid down in this Treaty; they shall act within the limits of the powers conferred upon them by this Treaty and by the Statute of the ESCB and of the ECB (hereinafter referred to as 'Statute of the ESCB') annexed thereto.

Part three

Community policies

Title VII (ex Title VI)

Economic and monetary policy

Chapter 1

Economic policy

Article 98 (ex Article 102a)

Member States shall conduct their economic policies with a view to contributing to the achievement of the objectives of the Community, as defined in Article 2, and in the context of the broad guidelines referred to in Article 99(2). The Member States and the Community shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 4.

Article 99 (ex Article 103)

1. Member States shall regard their economic policies as a matter of common concern and shall coordinate them within the Council, in accordance with the provisions of Article 98.

2. The Council shall, acting by a qualified majority on a recommendation from the Commission, formulate a draft for the broad guidelines of the economic policies of the Member States and of the Community, and shall report its findings to the European Council.

The European Council shall, acting on the basis of the report from the Council, discuss a conclusion on the broad guidelines of the economic policies of the Member States and of the Community.

On the basis of this conclusion, the Council shall, acting by a qualified majority, adopt a recommendation setting out these broad guidelines. The Council shall inform the European Parliament of its recommendation.

3. In order to ensure closer coordination of economic policies and sustained convergence of the economic performances of the Member States, the Council shall, on the basis of reports submitted by the Commission, monitor economic developments in each of the Member States and in the Community as well as the consistency of economic policies with the broad guidelines referred to in paragraph 2, and regularly carry out an overall assessment.

For the purpose of this multilateral surveillance, Member States shall forward information to the Commission about important measures taken by them in the field of their economic policy and such other information as they deem necessary.

4. Where it is established, under the procedure referred to in paragraph 3, that the economic policies of a Member State are not consistent with the broad guidelines referred to in paragraph 2 or that they risk jeopardising the proper functioning of economic and monetary union, the Council may, acting by a qualified majority on a recommendation from the Commission, make the necessary recommendations to the Member State concerned. The Council may, acting by a qualified majority on a proposal from the Commission, decide to make its recommendations public.

The President of the Council and the Commission shall report to the European Parliament on the results of multilateral surveillance. The President of the Council may be invited to appear before the competent committee of the European Parliament if the Council has made its recommendations public.

5. The Council, acting in accordance with the procedure referred to in Article 252, may adopt detailed rules for the multilateral surveillance procedure referred to in paragraphs 3 and 4 of this Article.

Article 100 (ex Article 103a)

1. Without prejudice to any other procedures provided for in this Treaty, the Council may, acting unanimously on a proposal from the Commission, decide upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products.

2. Where a Member State is in difficulties or is seriously threatened with severe difficulties caused by exceptional occurrences beyond its control, the Council may, acting unanimously on a proposal from the Commission, grant, under certain conditions, Community financial assistance to the Member State concerned. Where the severe difficulties are caused by natural disasters, the Council shall act by qualified majority. The President of the Council shall inform the European Parliament of the decision taken.

Article 101 (ex Article 104)

1. Overdraft facilities or any other type of credit facility with the ECB or with the central banks of the Member States (hereinafter referred to as 'national central banks') in favour of Community institutions or bodies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as

shall the purchase directly from them by the ECB or national central banks of debt instruments.

2. Paragraph 1 shall not apply to publicly owned credit institutions which, in the context of the supply of reserves by central banks, shall be given the same treatment by national central banks and the ECB as private credit institutions.

Article 102 (ex Article 104a)

1. Any measure, not based on prudential considerations, establishing privileged access by Community institutions or bodies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States to financial institutions, shall be prohibited.

2. The Council, acting in accordance with the procedure referred to in Article 252, shall, before 1 January 1994, specify definitions for the application of the prohibition referred to in paragraph 1.

Article 103 (ex Article 104b)

1. The Community shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project.

2. If necessary, the Council, acting in accordance with the procedure referred to in Article 252, may specify definitions for the application of the prohibition referred to in Article 101 and in this Article.

Article 104 (ex Article 104c)

1. Member States shall avoid excessive government deficits.

2. The Commission shall monitor the development of the budgetary situation and of the stock of government debt in the Member States with a view to identifying gross errors. In particular it shall examine compliance with budgetary discipline on the basis of the following two criteria:

(a) whether the ratio of the planned or actual government deficit to gross domestic product exceeds a reference value, unless:

– either the ratio has declined substantially and continuously and reached a level that comes close to the reference value;

– or, alternatively, the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value;

(b) whether the ratio of government debt to gross domestic product exceeds a reference value, unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace.

The reference values are specified in the Protocol on the excessive deficit procedure annexed to this Treaty.

3. If a Member State does not fulfil the requirements under one or both of these criteria, the Commission shall prepare a report. The report of the Commission shall also take into account whether the government deficit exceeds government investment expenditure and take into account all other relevant factors, including the medium-term economic and budgetary position of the Member State.

The Commission may also prepare a report if, notwithstanding the fulfilment of the requirements under the criteria, it is of the opinion that there is a risk of an excessive deficit in a Member State.

4. The Committee provided for in Article 114 shall formulate an opinion on the report of the Commission.

5. If the Commission considers that an excessive deficit in a Member State exists or may occur, the Commission shall address an opinion to the Council.

6. The Council shall, acting by a qualified majority on a recommendation from the Commission, and having considered any observations which the Member State concerned may wish to make, decide after an overall assessment whether an excessive deficit exists.

7. Where the existence of an excessive deficit is decided according to paragraph 6, the Council shall make recommendations to the Member State concerned with a view to bringing that situation to an end within a given period. Subject to the provisions of paragraph 8, these recommendations shall not be made public.

8. Where it establishes that there has been no effective action in response to its recommendations within the period laid down, the Council may make its recommendations public.

9. If a Member State persists in failing to put into practice the recommendations of the Council, the Council may decide to give notice to the Member State to take, within a specified time-limit, measures for the deficit reduction which is judged necessary by the Council in order to remedy the situation.

In such a case, the Council may request the Member State concerned to submit reports in accordance with a specific timetable in order to examine the adjustment efforts of that Member State.

10. The rights to bring actions provided for in Articles 226 and 227 may not be exercised within the framework of paragraphs 1 to 9 of this Article.

11. As long as a Member State fails to comply with a decision taken in accordance with paragraph 9, the Council may decide to apply or, as the case may be, intensify one or more of the following measures:

– to require the Member State concerned to publish additional information, to be specified by the Council, before issuing bonds and securities;

– to invite the European Investment Bank to reconsider its lending policy towards the Member State concerned;

– to require the Member State concerned to make a non-interest-bearing deposit of an appropriate size with the Community until the excessive deficit has, in the view of the Council, been corrected;

– to impose fines of an appropriate size.

The President of the Council shall inform the European Parliament of the decisions taken.

12. The Council shall abrogate some or all of its decisions referred to in paragraphs 6 to 9 and 11 to the extent that the excessive deficit in the Member State concerned has, in the view of the Council, been corrected. If the Council has previously made public recommendations, it shall, as soon as the decision under paragraph 8 has been abrogated, make a public statement that an excessive deficit in the Member State concerned no longer exists.

13. When taking the decisions referred to in paragraphs 7 to 9, 11 and 12, the Council shall act on a recommendation from the Commission by a majority of two thirds of the votes of its members weighted in accordance with Article 205(2), excluding the votes of the representative of the Member State concerned.

14. Further provisions relating to the implementation of the procedure described in this Article are set out in the Protocol on the excessive deficit procedure annexed to this Treaty.

The Council shall, acting unanimously on a proposal from the Commission and after consulting the European Parliament and the ECB, adopt the appropriate provisions which shall then replace the said Protocol.

Subject to the other provisions of this paragraph, the Council shall, before 1 January 1994, acting by a qualified majority on a proposal from the Commission and after consulting the European Parliament, lay down detailed rules and definitions for the application of the provisions of the said Protocol.

Chapter 2

Monetary policy

Article 105 (ex Article 105)

1. The primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2. The ESCB shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 4.

2. The basic tasks to be carried out through the ESCB shall be:

– to define and implement the monetary policy of the Community;

– to conduct foreign exchange operations consistent with the provisions of Article 111;

– to hold and manage the official foreign reserves of the Member States;

– to promote the smooth operation of payment systems.

3. The third indent of paragraph 2 shall be without prejudice to the holding and management by the governments of Member States of foreign-exchange working balances.

4. The ECB shall be consulted:

– on any proposed Community act in its fields of competence;

– by national authorities regarding any draft legislative provision in its fields of competence, but within the limits and under the conditions set out by the Council in accordance with the procedure laid down in Article 107(6).

The ECB may submit opinions to the appropriate Community institutions or bodies or to national authorities on matters in its fields of competence.

5. The ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system.

6. The Council may, acting unanimously on a proposal from the Commission and after consulting the ECB and after receiving the assent of the European Parliament, confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings.

Article 106 (ex Article 105a)

1. The ECB shall have the exclusive right to authorise the issue of banknotes within the Community. The ECB and the national central banks may issue such notes. The banknotes issued by the ECB and the national central banks shall be the only such notes to have the status of legal tender within the Community.

2. Member States may issue coins subject to approval by the ECB of the volume of the issue. The Council may, acting in accordance with the procedure referred to in Article 252 and after consulting the ECB, adopt measures to harmonise the denominations and technical specifications of all coins intended for circulation to the extent necessary to permit their smooth circulation within the Community.

Article 107 (ex Article 106)

1. The ESCB shall be composed of the ECB and of the national central banks.

2. The ECB shall have legal personality.

3. The ESCB shall be governed by the decision-making bodies of the ECB which shall be the Governing Council and the Executive Board.

4. The Statute of the ESCB is laid down in a Protocol annexed to this Treaty.

5. Articles 5.1, 5.2, 5.3, 17, 18, 19.1, 22, 23, 24, 26, 32.2, 32.3, 32.4, 32.6, 33.1(a) and 36 of the Statute of the ESCB may be amended by the Council, acting either by a qualified majority on a recommendation from the ECB and after consulting the Commission or unanimously on a proposal from the Commission and after consulting the ECB. In either case, the assent of the European Parliament shall be required.

6. The Council, acting by a qualified majority either on a proposal from the Commission and after consulting the European Parliament and the ECB or on a recommendation from the ECB and after consulting the European Parliament and the Commission, shall adopt the provisions referred to in Articles 4, 5.4, 19.2, 20, 28.1, 29.2, 30.4 and 34.3 of the Statute of the ESCB.

Article 108 (ex Article 107)

When exercising the powers and carrying out the tasks and duties conferred upon them by this Treaty and the Statute of the ESCB, neither the ECB, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the ECB or of the national central banks in the performance of their tasks.

Article 109 (ex Article 108)

Each Member State shall ensure, at the latest at the date of the establishment of the ESCB, that its national legislation including the statutes of its national central bank is compatible with this Treaty and the Statute of the ESCB.

Article 110 (ex Article 108a)

1. In order to carry out the tasks entrusted to the ESCB, the ECB shall, in accordance with the provisions of this Treaty and under the conditions laid down in the Statute of the ESCB:

– make regulations to the extent necessary to implement the tasks defined in Article 3.1, first indent, Articles 19.1, 22 and 25.2 of the Statute of the ESCB and in cases which shall be laid down in the acts of the Council referred to in Article 107(6);

– take decisions necessary for carrying out the tasks entrusted to the ESCB under this Treaty and the Statute of the ESCB;

– make recommendations and deliver opinions.

2. A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.

Recommendations and opinions shall have no binding force.

A decision shall be binding in its entirety upon those to whom it is addressed.

Articles 253, 254 and 256 shall apply to regulations and decisions adopted by the ECB.

The ECB may decide to publish its decisions, recommendations and opinions.

3. Within the limits and under the conditions adopted by the Council under the procedure laid down in Article 107(6), the ECB shall be entitled to impose fines or periodic penalty payments on undertakings for failure to comply with obligations under its regulations and decisions.

Article 111 (Article 109)

1. By way of derogation from Article 300, the Council may, acting unanimously on a recommendation from the ECB or from the Commission, and after consulting the ECB in an endeavour to reach a consensus consistent with the objective of price stability, after consulting the European Parliament, in accordance with the procedure in paragraph 3 for determining the arrangements, conclude formal agreements on an exchange-rate system for the ECU in relation to non-Community currencies. The Council may, acting by a qualified majority on a recommendation from the ECB or from the Commission, and after consulting the ECB in an endeavour to reach a consensus consistent with the objective of price stability, adopt, adjust or abandon the central rates of the ECU within the exchange-rate system. The President of the Council shall inform the European Parliament of the adoption, adjustment or abandonment of the ECU central rates.

2. In the absence of an exchange-rate system in relation to one or more non-Community currencies as referred to in paragraph 1, the Council, acting by a qualified majority either on a recommendation from the Commission and after consulting the ECB or on a recommendation from the ECB, may formulate general orientations for exchange-rate policy in relation to these currencies. These general orientations shall be without prejudice to the primary objective of the ESCB to maintain price stability.

3. By way of derogation from Article 300, where agreements concerning monetary or foreign exchange regime matters need to be negotiated by the Community with one or more States or international organisations, the Council, acting by a qualified majority on a recommendation from the Commission and after consulting the ECB, shall decide the arrangements for the negotiation and for the conclusion of such agreements. These arrangements shall ensure that the Community expresses a single position. The Commission shall be fully associated with the negotiations.

Agreements concluded in accordance with this paragraph shall be binding on the institutions of the Community, on the ECB and on Member States.

4. Subject to paragraph 1, the Council shall, on a proposal from the Commission and after consulting the ECB, acting by a qualified majority decide on the position of the Community at international level as regards issues of

particular relevance to economic and monetary union and, acting unanimously, decide its representation in compliance with the allocation of powers laid down in Articles 99 and 105.

5. Without prejudice to Community competence and Community agreements as regards economic and monetary union, Member States may negotiate in international bodies and conclude international agreements.

Chapter 3

Institutional provisions

Article 112 (ex Article 109a)

1. The Governing Council of the ECB shall comprise the members of the Executive Board of the ECB and the Governors of the national central banks.

2. (a) The Executive Board shall comprise the President, the Vice-President and four other members.

   (b) The President, the Vice-President and the other members of the Executive Board shall be appointed from among persons of recognised standing and professional experience in monetary or banking matters by common accord of the governments of the Member States at the level of Heads of State or Government, on a recommendation from the Council, after it has consulted the European Parliament and the Governing Council of the ECB.

   Their term of office shall be eight years and shall not be renewable.

   Only nationals of Member States may be members of the Executive Board.

Article 113 (ex Article 109b)

1. The President of the Council and a member of the Commission may participate, without having the right to vote, in meetings of the Governing Council of the ECB.

The President of the Council may submit a motion for deliberation to the Governing Council of the ECB.

2. The President of the ECB shall be invited to participate in Council meetings when the Council is discussing matters relating to the objectives and tasks of the ESCB.

3. The ECB shall address an annual report on the activities of the ESCB and on the monetary policy of both the previous and current year to the European Parliament, the Council and the Commission, and also to the European Council. The President of the ECB shall present this report to the Council and to the European Parliament, which may hold a general debate on that basis.

The President of the ECB and the other members of the Executive Board may, at the request of the European Parliament or on their own initiative, be heard by the competent committees of the European Parliament.

Article 114 (ex Article 109c)

1. In order to promote coordination of the policies of Member States to the full extent needed for the functioning of the internal market, a Monetary Committee with advisory status is hereby set up.

It shall have the following tasks:

– to keep under review the monetary and financial situation of the Member States and of the Community and the general payments system of the Member States and to report regularly thereon to the Council and to the Commission;

– to deliver opinions at the request of the Council or of the Commission, or on its own initiative for submission to those institutions;

– without prejudice to Article 207, to contribute to the preparation of the work of the Council referred to in Articles 59, 60, 99(2), (3), (4) and (5), 100, 102, 103, 104, 116(2), 117(6), 119, 120, 121(2) and 122(1);

– to examine, at least once a year, the situation regarding the movement of capital and the freedom of payments, as they result from the application of this Treaty and of measures adopted by the Council; the examination shall cover all measures relating to capital movements and payments; the Committee shall report to the Commission and to the Council on the outcome of this examination.

The Member States and the Commission shall each appoint two members of the Monetary Committee.

2. At the start of the third stage, an Economic and Financial Committee shall be set up. The Monetary Committee provided for in paragraph 1 shall be dissolved.

The Economic and Financial Committee shall have the following tasks:

– to deliver opinions at the request of the Council or of the Commission, or on its own initiative for submission to those institutions;

– to keep under review the economic and financial situation of the Member States and of the Community and to report regularly thereon to the Council and to the Commission, in particular on financial relations with third countries and international institutions;

– without prejudice to Article 207, to contribute to the preparation of the work of the Council referred to in Articles 59, 60, 99(2), (3), (4) and (5), 100, 102, 103, 104, 105(6), 106(2), 107(5) and (6), 111, 119, 120(2) and (3), 122(2), 123(4) and (5), and to carry out other advisory and preparatory tasks assigned to it by the Council;

– to examine, at least once a year, the situation regarding the movement of capital and the freedom of payments, as they result from the application

of this Treaty and of measures adopted by the Council; the examination shall cover all measures relating to capital movements and payments; the Committee shall report to the Commission and to the Council on the outcome of this examination.

The Member States, the Commission and the ECB shall each appoint no more than two members of the Committee.

3. The Council shall, acting by a qualified majority on a proposal from the Commission and after consulting the ECB and the Committee referred to in this Article, lay down detailed provisions concerning the composition of the Economic and Financial Committee. The President of the Council shall inform the European Parliament of such a decision.

4. In addition to the tasks set out in paragraph 2, if and as long as there are Member States with a derogation as referred to in Articles 122 and 123, the Committee shall keep under review the monetary and financial situation and the general payments system of those Member States and report regularly thereon to the Council and to the Commission.

Article 115 (ex Article 109d)

For matters within the scope of Articles 99(4), 104 with the exception of paragraph 14, 111, 121, 122 and 123(4) and (5), the Council or a Member State may request the Commission to make a recommendation or a proposal, as appropriate. The Commission shall examine this request and submit its conclusions to the Council without delay.

Chapter 4

Transitional provisions

Article 119 (ex Article 109h)

1. Where a Member State is in difficulties or is seriously threatened with difficulties as regards its balance of payments either as a result of an overall disequilibrium in its balance of payments, or as a result of the type of currency at its disposal, and where such difficulties are liable in particular to jeopardise the functioning of the common market or the progressive implementation of the common commercial policy, the Commission shall immediately investigate the position of the State in question and the action which, making use of all the means at its disposal, that State has taken or may take in accordance with the provisions of this Treaty. The Commission shall state what measures it recommends the State concerned to take.

If the action taken by a Member State and the measures suggested by the Commission do not prove sufficient to overcome the difficulties which have arisen or which threaten, the Commission shall, after consulting the Committee referred to in Article 114, recommend to the Council the granting of mutual assistance and appropriate methods therefor.

The Commission shall keep the Council regularly informed of the situation and of how it is developing.

2. The Council, acting by a qualified majority, shall grant such mutual assistance; it shall adopt directives or decisions laying down the conditions and details of such assistance, which may take such forms as:

(a) a concerted approach to or within any other international organisations to which Member States may have recourse;

(b) measures needed to avoid deflection of trade where the State which is in difficulties maintains or reintroduces quantitative restrictions against third countries;

(c) the granting of limited credits by other Member States, subject to their agreement.

3. If the mutual assistance recommended by the Commission is not granted by the Council or if the mutual assistance granted and the measures taken are insufficient, the Commission shall authorise the State which is in difficulties to take protective measures, the conditions and details of which the Commission shall determine.

Such authorisation may be revoked and such conditions and details may be changed by the Council acting by a qualified majority.

4. Subject to Article 122(6), this Article shall cease to apply from the beginning of the third stage.

Article 120 (ex Article 109i)

1. Where a sudden crisis in the balance of payments occurs and a decision within the meaning of Article 119(2) is not immediately taken, the Member State concerned may, as a precaution, take the necessary protective measures. Such measures must cause the least possible disturbance in the functioning of the common market and must not be wider in scope than is strictly necessary to remedy the sudden difficulties which have arisen.

2. The Commission and the other Member States shall be informed of such protective measures not later than when they enter into force. The Commission may recommend to the Council the granting of mutual assistance under Article 119.

3. After the Commission has delivered an opinion and the Committee referred to in Article 114 has been consulted, the Council may, acting by a qualified majority, decide that the State concerned shall amend, suspend or abolish the protective measures referred to above.

4. Subject to Article 122(6), this Article shall cease to apply from the beginning of the third stage.

Article 121 (ex Article 109j)

1. The Commission and the EMI shall report to the Council on the progress made in the fulfilment by the Member States of their obligations regarding the achievement of economic and monetary union. These reports shall include an examination of the compatibility between each Member State's national legislation, including the statutes of its national central bank, and Articles 108 and 109 of this Treaty and the Statute of the ESCB. The reports shall also examine the achievement of a high degree of sustainable convergence by reference to the fulfilment by each Member State of the following criteria:

– the achievement of a high degree of price stability; this will be apparent from a rate of inflation which is close to that of, at most, the three best performing Member States in terms of price stability;

– the sustainability of the government financial position; this will be apparent from having achieved a government budgetary position without a deficit that is excessive as determined in accordance with Article 104(6);

– the observance of the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System, for at least two years, without devaluing against the currency of any other Member State;

– the durability of convergence achieved by the Member State and of its participation in the exchange-rate mechanism of the European Monetary System being reflected in the long-term interest-rate levels.

The four criteria mentioned in this paragraph and the relevant periods over which they are to be respected are developed further in a Protocol annexed to this Treaty. The reports of the Commission and the EMI shall also take account of the development of the ECU, the results of the integration of markets, the situation and development of the balances of payments on current account and an examination of the development of unit labour costs and other price indices.

2. On the basis of these reports, the Council, acting by a qualified majority on a recommendation from the Commission, shall assess:

– for each Member State, whether it fulfils the necessary conditions for the adoption of a single currency;

– whether a majority of the Member States fulfil the necessary conditions for the adoption of a single currency,

and recommend its findings to the Council, meeting in the composition of the Heads of State or Government. The European Parliament shall be consulted and forward its opinion to the Council, meeting in the composition of the Heads of State or Government.

3. Taking due account of the reports referred to in paragraph 1 and the opinion of the European Parliament referred to in paragraph 2, the Council, meeting in the composition of the Heads of State or Government, shall, acting by a qualified majority, not later than 31 December 1996:

– decide, on the basis of the recommendations of the Council referred to in paragraph 2, whether a majority of the Member States fulfil the necessary conditions for the adoption of a single currency;

– decide whether it is appropriate for the Community to enter the third stage,

and if so:

– set the date for the beginning of the third stage.

4. If by the end of 1997 the date for the beginning of the third stage has not been set, the third stage shall start on 1 January 1999. Before 1 July 1998, the Council, meeting in the composition of the Heads of State or Government, after a repetition of the procedure provided for in paragraphs 1 and 2, with the exception of the second indent of paragraph 2, taking into account the reports referred to in paragraph 1 and the opinion of the European Parliament, shall, acting by a qualified majority and on the basis of the recommendations of the Council referred to in paragraph 2, confirm which Member States fulfil the necessary conditions for the adoption of a single currency.

Article 122 (ex Article 109k)

1. If the decision has been taken to set the date in accordance with Article 121(3), the Council shall, on the basis of its recommendations referred to in Article 121(2), acting by a qualified majority on a recommendation from the Commission, decide whether any, and if so which, Member States shall have a derogation as defined in paragraph 3 of this Article. Such Member States shall in this Treaty be referred to as 'Member States with a derogation'.

If the Council has confirmed which Member States fulfil the necessary conditions for the adoption of a single currency, in accordance with Article 121(4), those Member States which do not fulfil the conditions shall have a derogation as defined in paragraph 3 of this Article. Such Member States shall in this Treaty be referred to as 'Member States with a derogation'.

2. At least once every two years, or at the request of a Member State with a derogation, the Commission and the ECB shall report to the Council in accordance with the procedure laid down in Article 121(1). After consulting the European Parliament and after discussion in the Council, meeting in the composition of the Heads of State or Government, the Council shall, acting by a qualified majority on a proposal from the Commission, decide which Member States with a derogation fulfil the necessary conditions on the basis of the criteria set out in Article 121(1), and abrogate the derogations of the Member States concerned.

3. A derogation referred to in paragraph 1 shall entail that the following Articles do not apply to the Member State concerned: Articles 104(9) and (11), 105(1), (2), (3) and (5), 106, 110, 111, and 112(2)(b). The exclusion of such a Member State and its national central bank from rights and obligations within the ESCB is laid down in Chapter IX of the Statute of the ESCB.

4. In Articles 105(1), (2) and (3), 106, 110, 111 and 112(2)(b), 'Member States' shall be read as 'Member States without a derogation'.

5. The voting rights of Member States with a derogation shall be suspended for the Council decisions referred to in the Articles of this Treaty mentioned in paragraph 3. In that case, by way of derogation from Articles 205 and 250(1), a qualified majority shall be defined as two thirds of the votes of the representatives of the Member States without a derogation weighted in accordance with Article 205(2), and unanimity of those Member States shall be required for an act requiring unanimity.

6. Articles 119 and 120 shall continue to apply to a Member State with a derogation.

Article 123 (ex Article 109l)

1. Immediately after the decision on the date for the beginning of the third stage has been taken in accordance with Article 121(3), or, as the case may be, immediately after 1 July 1998:

– the Council shall adopt the provisions referred to in Article 107(6);

– the governments of the Member States without a derogation shall appoint, in accordance with the procedure set out in Article 50 of the Statute of the ESCB, the President, the Vice-President and the other members of the Executive Board of the ECB. If there are Member States with a derogation, the number of members of the Executive Board may be smaller than provided for in Article 11.1 of the Statute of the ESCB, but in no circumstances shall it be less than four.

As soon as the Executive Board is appointed, the ESCB and the ECB shall be established and shall prepare for their full operation as described in this Treaty and the Statute of the ESCB. The full exercise of their powers shall start from the first day of the third stage.

2. As soon as the ECB is established, it shall, if necessary, take over tasks of the EMI. The EMI shall go into liquidation upon the establishment of the ECB; the modalities of liquidation are laid down in the Statute of the EMI.

3. If and as long as there are Member States with a derogation, and without prejudice to Article 107(3) of this Treaty, the General Council of the ECB referred to in Article 45 of the Statute of the ESCB shall be constituted as a third decision-making body of the ECB.

4. At the starting date of the third stage, the Council shall, acting with the unanimity of the Member States without a derogation, on a proposal from the Commission and after consulting the ECB, adopt the conversion rates at which their currencies shall be irrevocably fixed and at which irrevocably fixed rate the ECU shall be substituted for these currencies, and the ECU will become a currency in its own right. This measure shall by itself not modify the external value of the ECU. The Council shall, acting according to the same procedure, also take the other measures necessary for the rapid introduction of the ECU as the single currency of those Member States.

5. If it is decided, according to the procedure set out in Article 122(2), to abrogate a derogation, the Council shall, acting with the unanimity of the Member States without a derogation and the Member State concerned, on a proposal from the Commission and after consulting the ECB, adopt the rate at which the ECU shall be substituted for the currency of the Member State concerned, and take the other measures necessary for the introduction of the ECU as the single currency in the Member State concerned.

Article 124 (ex Article 109m)

1. Until the beginning of the third stage, each Member State shall treat its exchange-rate policy as a matter of common interest. In so doing, Member States shall take account of the experience acquired in cooperation within the framework of the European Monetary System (EMS) and in developing the ECU, and shall respect existing powers in this field.

2. From the beginning of the third stage and for as long as a Member State has a derogation, paragraph 1 shall apply by analogy to the exchange-rate policy of that Member State.

Annex 2

Protocol on the Statute of the European System of Central Banks and of the European Central Bank

The High Contracting Parties,

Desiring to lay down the Statute of the European System of Central Banks and of the European Central Bank provided for in Article 8 of the Treaty establishing the European Community,

Have agreed upon the following provisions, which shall be annexed to the Treaty establishing the European Community.

Chapter I

Constitution of the ESCB

Article 1
The European System of Central Banks

1.1. The European System of Central Banks (ESCB) and the European Central Bank (ECB) shall be established in accordance with Article 8 of this Treaty; they shall perform their tasks and carry on their activities in accordance with the provisions of this Treaty and of this Statute.

1.2. In accordance with Article 107(1) of this Treaty, the ESCB shall be composed of the ECB and of the central banks of the Member States ('national central banks'). The Institut monétaire luxembourgeois will be the central bank of Luxembourg.

Chapter II

Objectives and tasks of the ESCB

Article 2
Objectives

In accordance with Article 105(1) of this Treaty, the primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, it shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2 of this Treaty. The ESCB shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 4 of this Treaty.

Article 3
Tasks

3.1. In accordance with Article 105(2) of this Treaty, the basic tasks to be carried out through the ESCB shall be:

- to define and implement the monetary policy of the Community;
- to conduct foreign-exchange operations consistent with the provisions of Article 111 of this Treaty;
- to hold and manage the official foreign reserves of the Member States;
- to promote the smooth operation of payment systems.

3.2. In accordance with Article 105(3) of this Treaty, the third indent of Article 3.1 shall be without prejudice to the holding and management by the governments of Member States of foreign exchange working balances.

3.3. In accordance with Article 105(5) of this Treaty, the ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system.

Article 4
Advisory functions

In accordance with Article 105(4) of this Treaty:

(a) the ECB shall be consulted:

- on any proposed Community act in its fields of competence;
- by national authorities regarding any draft legislative provision in its fields of competence, but within the limits and under the conditions set out by the Council in accordance with the procedure laid down in Article 42;

(b) the ECB may submit opinions to the appropriate Community institutions or bodies or to national authorities on matters in its fields of competence.

Article 5
Collection of statistical information

5.1. In order to undertake the tasks of the ESCB, the ECB, assisted by the national central banks, shall collect the necessary statistical information either from the competent national authorities or directly from economic agents. For these purposes it shall cooperate with the Community institutions or bodies and with the competent authorities of the Member States or third countries and with international organizations.

5.2. The national central banks shall carry out, to the extent possible, the tasks described in Article 5.1.

5.3. The ECB shall contribute to the harmonization, where necessary, of the rules and practices governing the collection, compilation and distribution of statistics in the areas within its fields of competence.

5.4. The Council, in accordance with the procedure laid down in Article 42, shall define the natural and legal persons subject to reporting requirements, the confidentiality regime and the appropriate provisions for enforcement.

Article 6
International cooperation

6.1. In the field of international cooperation involving the tasks entrusted to the ESCB, the ECB shall decide how the ESCB shall be represented.

6.2. The ECB and, subject to its approval, the national central banks may participate in international monetary institutions.

6.3. Articles 6.1 and 6.2 shall be without prejudice to Article 111(4) of this Treaty.

Chapter III

Organization of the ESCB

Article 7
Independence

In accordance with Article 108 of this Treaty, when exercising the powers and carrying out the tasks and duties conferred upon them by this Treaty and this Statute, neither the ECB, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the ECB or of the national central banks in the performance of their tasks.

Article 8
General principle

The ESCB shall be governed by the decision-making bodies of the ECB.

Article 9
The European Central Bank

9.1. The ECB which, in accordance with Article 107(2) of this Treaty, shall have legal personality, shall enjoy in each of the Member States the most extensive legal capacity accorded to legal persons under its law; it may, in particular, acquire or dispose of movable and immovable property and may be a party to legal proceedings.

9.2. The ECB shall ensure that the tasks conferred upon the ESCB under Article 105(2), (3) and (5) of this Treaty are implemented either by its own activities pursuant to this Statute or through the national central banks pursuant to Articles 12.1 and 14.

9.3. In accordance with Article 107(3) of this Treaty, the decision making bodies of the ECB shall be the Governing Council and the Executive Board.

Article 10
The Governing Council

10.1. In accordance with Article 112(1) of this Treaty, the Governing Council shall comprise the members of the Executive Board of the ECB and the governors of the national central banks.

10.2. Subject to Article 10.3, only members of the Governing Council present in person shall have the right to vote. By way of derogation from this rule, the Rules of Procedure referred to in Article 12.3 may lay down that members of the Governing Council may cast their vote by means of teleconferencing. These rules shall also provide that a member of the Governing Council who is prevented from voting for a prolonged period may appoint an alternate as a member of the Governing Council.

Subject to Articles 10.3 and 11.3, each member of the Governing Council shall have one vote. Save as otherwise provided for in this Statute, the Governing Council shall act by a simple majority. In the event of a tie, the President shall have the casting vote.

In order for the Governing Council to vote, there shall be a quorum of two thirds of the members. If the quorum is not met, the President may convene an extraordinary meeting at which decisions may be taken without regard to the quorum.

10.3. For any decisions to be taken under Articles 28, 29, 30, 32, 33 and 51, the votes in the Governing Council shall be weighted according to the national central banks' shares in the subscribed capital of the ECB. The weights of the votes of the members of the Executive Board shall be zero. A decision requiring a qualified majority shall be adopted if the votes cast in favour represent at least two thirds of the subscribed capital of the ECB and represent at least half of the shareholders. If a Governor is unable to be present, he may nominate an alternate to cast his weighted vote.

10.4. The proceedings of the meetings shall be confidential. The Governing Council may decide to make the outcome of its deliberations public.

10.5. The Governing Council shall meet at least 10 times a year.

Article 11
The Executive Board

11.1. In accordance with Article 112(2)(a) of this Treaty, the Executive Board shall comprise the President, the Vice-President and four other members.

The members shall perform their duties on a full-time basis. No member shall engage in any occupation, whether gainful or not, unless exemption is exceptionally granted by the Governing Council.

11.2. In accordance with Article 112(2)(b) of this Treaty, the President, the Vice-President and the other members of the Executive Board shall be appointed from among persons of recognized standing and professional experience in monetary or banking matters by common accord of the governments of the Member States at the level of the Heads of State or Government, on a recommendation from the Council after it has consulted the European Parliament and the Governing Council.

Their term of office shall be eight years and shall not be renewable.

Only nationals of Member States may be members of the Executive Board.

11.3. The terms and conditions of employment of the members of the Executive Board, in particular their salaries, pensions and other social security benefits shall be the subject of contracts with the ECB and shall be fixed by the Governing Council on a proposal from a Committee comprising three members appointed by the Governing Council and three members appointed by the Council. The members of the Executive Board shall not have the right to vote on matters referred to in this paragraph.

11.4. If a member of the Executive Board no longer fulfils the conditions required for the performance of his duties or if he has been guilty of serious misconduct, the Court of Justice may, on application by the Governing Council or the Executive Board, compulsorily retire him.

11.5. Each member of the Executive Board present in person shall have the right to vote and shall have, for that purpose, one vote. Save as otherwise provided, the Executive Board shall act by a simple majority of the votes cast. In the event of a tie, the President shall have the casting vote. The voting arrangements shall be specified in the Rules of Procedure referred to in Article 12.3.

11.6. The Executive Board shall be responsible for the current business of the ECB.

11.7. Any vacancy on the Executive Board shall be filled by the appointment of a new member in accordance with Article 11.2.

Article 12
Responsibilities of the decision-making bodies

12.1. The Governing Council shall adopt the guidelines and take the decisions necessary to ensure the performance of the tasks entrusted to the ESCB under this Treaty and this Statute. The Governing Council shall formulate the monetary policy of the Community including, as appropriate, decisions relating to intermediate monetary objectives, key interest rates and the supply of reserves in the ESCB, and shall establish the necessary guidelines for their implementation.

The Executive Board shall implement monetary policy in accordance with the guidelines and decisions laid down by the Governing Council. In doing so the Executive Board shall give the necessary instructions to national central banks. In addition the Executive Board may have certain powers delegated to it where the Governing Council so decides.

To the extent deemed possible and appropriate and without prejudice to the provisions of this Article, the ECB shall have recourse to the national central banks to carry out operations which form part of the tasks of the ESCB.

12.2. The Executive Board shall have responsibility for the preparation of meetings of the Governing Council.

12.3. The Governing Council shall adopt Rules of Procedure which determine the internal organization of the ECB and its decision-making bodies.

12.4. The Governing Council shall exercise the advisory functions referred to in Article 4.

12.5. The Governing Council shall take the decisions referred to in Article 6.

Article 13
The President

13.1. The President or, in his absence, the Vice-President shall chair the Governing Council and the Executive Board of the ECB.

13.2. Without prejudice to Article 39, the President or his nominee shall represent the ECB externally.

Article 14
National central banks

14.1. In accordance with Article 109 of this Treaty, each Member State shall ensure, at the latest at the date of the establishment of the ESCB, that its national legislation, including the statutes of its national central bank, is compatible with this Treaty and this Statute.

14.2. The statutes of the national central banks shall, in particular, provide that the term of office of a Governor of a national central bank shall be no less than five years.

A Governor may be relieved from office only if he no longer fulfils the conditions required for the performance of his duties or if he has been guilty of serious misconduct. A decision to this effect may be referred to the Court of Justice by the Governor concerned or the Governing Council on grounds of infringement of this Treaty or of any rule of law relating to its application. Such proceedings shall be instituted within two months of the publication of the decision or of its notification to the plaintiff or, in the absence thereof, of the day on which it came to the knowledge of the latter, as the case may be.

14.3. The national central banks are an integral part of the ESCB and shall act in accordance with the guidelines and instructions of the ECB. The Governing Council shall take the necessary steps to ensure compliance with the guidelines and instructions of the ECB, and shall require that any necessary information be given to it.

14.4. National central banks may perform functions other than those specified in this Statute unless the Governing Council finds, by a majority of two thirds of the votes cast, that these interfere with the objectives and tasks of the ESCB. Such functions shall be performed on the responsibility and liability of national central banks and shall not be regarded as being part of the functions of the ESCB.

Article 15
Reporting commitments

15.1. The ECB shall draw up and publish reports on the activities of the ESCB at least quarterly.

15.2. A consolidated financial statement of the ESCB shall be published each week.

15.3. In accordance with Article 113(3) of this Treaty, the ECB shall address an annual report on the activities of the ESCB and on the monetary policy of both the previous and the current year to the European Parliament, the Council and the Commission, and also to the European Council.

15.4. The reports and statements referred to in this Article shall be made available to interested parties free of charge.

Article 16
Banknotes

In accordance with Article 106(1) of this Treaty, the Governing Council shall have the exclusive right to authorize the issue of banknotes within the Community. The ECB and the national central banks may issue such notes. The banknotes issued by the ECB and the national central banks shall be the only such notes to have the status of legal tender within the Community.

The ECB shall respect as far as possible existing practices regarding the issue and design of banknotes.

Chapter IV

Monetary functions and operations of the ESCB

Article 17
Accounts with the ECB and the national central banks

In order to conduct their operations, the ECB and the national central banks may open accounts for credit institutions, public entities and other market participants and accept assets, including book entry securities, as collateral.

Article 18
Open market and credit operations

18.1. In order to achieve the objectives of the ESCB and to carry out its tasks, the ECB and the national central banks may:

– operate in the financial markets by buying and selling outright (spot and forward) or under repurchase agreement and by lending or borrowing claims and marketable instruments, whether in Community or in non-Community currencies, as well as precious metals;

– conduct credit operations with credit institutions and other market participants, with lending being based on adequate collateral.

18.2. The ECB shall establish general principles for open market and credit operations carried out by itself or the national central banks, including for the announcement of conditions under which they stand ready to enter into such transactions.

Article 19
Minimum reserves

19.1. Subject to Article 2, the ECB may require credit institutions established in Member States to hold minimum reserve on accounts with the ECB and national central banks in pursuance of monetary policy objectives. Regulations concerning the calculation and determination of the required minimum reserves may be established by the Governing Council. In cases of non-compliance the ECB shall be entitled to levy penalty interest and to impose other sanctions with comparable effect.

19.2. For the application of this Article, the Council shall, in accordance with the procedure laid down in Article 42, define the basis for minimum reserves and the maximum permissible ratios between those reserves and their basis, as well as the appropriate sanctions in cases of non-compliance.

Article 20
Other instruments of monetary control

The Governing Council may, by a majority of two thirds of the votes cast, decide upon the use of such other operational methods of monetary control as it sees fit, respecting Article 2.

The Council shall, in accordance with the procedure laid down in Article 42, define the scope of such methods if they impose obligations on third parties.

Article 21
Operations with public entities

21.1. In accordance with Article 101 of this Treaty, overdrafts or any other type of credit facility with the ECB or with the national central banks in favour of Community institutions or bodies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase directly from them by the ECB or national central banks of debt instruments.

21.2. The ECB and national central banks may act as fiscal agents for the entities referred to in Article 21.1.

21.3. The provisions of this Article shall not apply to publicly owned credit institutions which, in the context of the supply of reserves by central banks, shall be given the same treatment by national central banks and the ECB as private credit institutions.

Article 22
Clearing and payment systems

The ECB and national central banks may provide facilities, and the ECB may make regulations, to ensure efficient and sound clearing and payment systems within the Community and with other countries.

Article 23
External operations

The ECB and national central banks may:

– establish relations with central banks and financial institutions in other countries and, where appropriate, with international organizations;

– acquire and sell spot and forward all types of foreign exchange assets and precious metals; the term 'foreign exchange asset' shall include securities and all other assets in the currency of any country or units of account and in whatever form held;

– hold and manage the assets referred to in this Article;

– conduct all types of banking transactions in relations with third countries and international organizations, including borrowing and lending operations.

Article 24
Other operations

In addition to operations arising from their tasks, the ECB and national central banks may enter into operations for their administrative purposes or for their staff.

Chapter V

Prudential supervision

Article 25
Prudential supervision

25.1. The ECB may offer advice to and be consulted by the Council, the Commission and the competent authorities of the Member States on the scope and implementation of Community legislation relating to the prudential supervision of credit institutions and to the stability of the financial system.

25.2. In accordance with any decision of the Council under Article 105(6) of this Treaty, the ECB may perform specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings.

Chapter VI

Financial provisions of the ESCB

Article 26
Financial accounts

26.1. The financial year of the ECB and national central banks shall begin on the first day of January and end on the last day of December.

26.2. The annual accounts of the ECB shall be drawn up by the Executive Board, in accordance with the principles established by the Governing Council. The accounts shall be approved by the Governing Council and shall thereafter be published.

26.3. For analytical and operational purposes, the Executive Board shall draw up a consolidated balance sheet of the ESCB, comprising those assets and liabilities of the national central banks that fall within the ESCB.

26.4. For the application of this Article, the Governing Council shall establish the necessary rules for standardizing the accounting and reporting of operations undertaken by the national central banks.

Article 27
Auditing

27.1. The accounts of the ECB and national central banks shall be audited by independent external auditors recommended by the Governing Council and approved by the Council. The auditors shall have full power to examine all books and accounts of the ECB and national central banks and obtain full information about their transactions.

27.2. The provisions of Article 248 of this Treaty shall only apply to an examination of the operational efficiency of the management of the ECB.

Article 28
Capital of the ECB

28.1. The capital of the ECB, which shall become operational upon its establishment, shall be ECU 5 000 million. The capital may be increased by such amounts as may be decided by the Governing Council acting by the qualified majority provided for in Article 10.3, within the limits and under the conditions set by the Council under the procedure laid down in Article 42.

28.2. The national central banks shall be the sole subscribers to and holders of the capital of the ECB. The subscription of capital shall be according to the key established in accordance with Article 29.

28.3. The Governing Council, acting by the qualified majority provided for in Article 10.3, shall determine the extent to which and the form in which the capital shall be paid up.

28.4. Subject to Article 28.5, the shares of the national central banks in the subscribed capital of the ECB may not be transferred, pledged or attached.

28.5. If the key referred to in Article 29 is adjusted, the national central banks shall transfer among themselves capital shares to the extent necessary to ensure that the distribution of capital shares corresponds to the adjusted key. The Governing Council shall determine the terms and conditions of such transfers.

Article 29
Key for capital subscription

29.1. When in accordance with the procedure referred to in Article 123(1) of this Treaty the ESCB and the ECB have been established, the key for subscription of the ECB's capital shall be established. Each national central bank shall be assigned a weighting in this key, which shall be equal to the sum of:

– 50% of the share of its respective Member State in the population of the Community in the penultimate year preceding the establishment of the ESCB;

– 50% of the share of its respective Member State in the gross domestic product at market prices of the Community as recorded in the last five years preceding the penultimate year before the establishment of the ESCB.

The percentages shall be rounded up to the nearest multiple of 0.05 percentage points.

29.2. The statistical data to be used for the application of this Article shall be provided by the Commission in accordance with the rules adopted by the Council under the procedure provided for in Article 42.

29.3. The weightings assigned to the national central banks shall be adjusted every five years after the establishment of the ESCB by analogy with the provisions laid down in Article 29.1. The adjusted key shall apply with effect from the first day of the following year.

29.4. The Governing Council shall take all other measures necessary for the application of this Article.

Article 30
Transfer of foreign reserve assets to the ECB

30.1. Without prejudice to Article 28, the ECB shall be provided by the national central banks with foreign reserve assets, other than Member States' currencies, ECUs, IMF reserve positions and SDRs, up to an amount equivalent to ECU 50 000 million. The Governing Council shall decide upon the proportion to be called up by the ECB following its establishment and the amounts called up at later dates. The ECB shall have the full right to hold and manage the foreign reserves that are transferred to it and to use them for the purposes set out in this Statute.

30.2. The contributions of each national central bank shall be fixed in proportion to its share in the subscribed capital of the ECB.

30.3. Each national central bank shall be credited by the ECB with a claim equivalent to its contribution. The Governing Council shall determine the denomination and remuneration of such claims.

30.4. Further calls of foreign reserve assets beyond the limit set in Article 30.1 may be effected by the ECB, in accordance with Article 30.2, within the limits and under the conditions set by the Council in accordance with the procedure laid down in Article 42.

30.5. The ECB may hold and manage IMF reserve positions and SDRs and provide for the pooling of such assets.

30.6. The Governing Council shall take all other measures necessary for the application of this Article.

Article 31
Foreign reserve assets held by national central banks

31.1. The national central banks shall be allowed to perform transactions in fulfilment of their obligations towards international organizations in accordance with Article 23.

31.2. All other operations in foreign reserve assets remaining with the national central banks after the transfers referred to in Article 30, and Members States' transactions with their foreign exchange working balances shall, above a certain limit to be established within the framework of Article 31.3, be subject to approval by the ECB in order to ensure consistency with the exchange rate and monetary policies of the Community.

31.3. The Governing Council shall issue guidelines with a view to facilitating such operations.

Article 32
Allocation of monetary income of national central banks

32.1. The income accruing to the national central banks in the performance of the ESCB's monetary policy function (hereinafter referred to as 'monetary income') shall be allocated at the end of each financial year in accordance with the provisions of this Article.

32.2. Subject to Article 32.3, the amount of each national central bank's monetary income shall be equal to its annual income derived from its assets held against notes in circulation and deposit liabilities to credit institutions. These assets shall be earmarked by national central banks in accordance with guidelines to be established by the Governing Council.

32.3. If, after the start of the third stage, the balance sheet structures of the national central banks do not, in the judgement of the Governing Council, permit the application of Article 32.2, the Governing Council, acting by a qualified majority, may decide that, by way of derogation from Article 32.2, monetary income shall be measured according to an alternative method for a period of not more than five years.

32.4. The amount of each national central bank's monetary income shall be reduced by an amount equivalent to any interest paid by that central bank on its deposit liabilities to credit institutions in accordance with Article 19.

The Governing Council may decide that national central banks shall be indemnified against costs incurred in connection with the issue of banknotes or in exceptional circumstances for specific losses arising from monetary policy operations undertaken for the ESCB. Indemnification shall be in a form deemed appropriate in the judgement of the Governing Council; these amounts may be offset against the national central banks' monetary income.

32.5. The sum of the national central banks' monetary income shall be allocated to the national central banks in proportion to their paid up shares in the capital of the ECB, subject to any decision taken by the Governing Council pursuant to Article 33.2.

32.6. The clearing and settlement of the balances arising from the allocation of monetary income shall be carried out by the ECB in accordance with guidelines established by the Governing Council.

32.7. The Governing Council shall take all other measures necessary for the application of this Article.

Article 33
Allocation of net profits and losses of the ECB

33.1. The net profit of the ECB shall be transferred in the following order:

(a) 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;

(b) the remaining net profit shall be distributed to the shareholders of the ECB in proportion to their paid-up shares.

33.2. In the event of a loss incurred by the ECB, the shortfall may be offset against the general reserve fund of the ECB and, if necessary, following a decision by the Governing Council, against the monetary income of the relevant financial year in proportion and up to the amounts allocated to the national central banks in accordance with Article 32.5.

Chapter VII

General provisions

Article 34
Legal acts

34.1. In accordance with Article 110 of this Treaty, the ECB shall:

– make regulations to the extent necessary to implement the tasks defined in Article 3.1, first indent, Articles 19.1, 22 or 25.2 and in cases which shall be laid down in the acts of the Council referred to in Article 42;

– take decisions necessary for carrying out the tasks entrusted to the ESCB under this Treaty and this Statute;

– make recommendations and deliver opinions.

34.2. A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.

Recommendations and opinions shall have no binding force.

A decision shall be binding in its entirety upon those to whom it is addressed.

Articles 253, 254 and 256 of this Treaty shall apply to regulations and decisions adopted by the ECB.

The ECB may decide to publish its decisions, recommendations and opinions.

34.3. Within the limits and under the conditions adopted by the Council under the procedure laid down in Article 42, the ECB shall be entitled to impose fines or periodic penalty payments on undertakings for failure to comply with obligations under its regulations and decisions.

Article 35
Judicial control and related matters

35.1. The acts or omissions of the ECB shall be open to review or interpretation by the Court of Justice in the cases and under the conditions laid down in this Treaty. The ECB may institute proceedings in the cases and under the conditions laid down in this Treaty.

35.2. Disputes between the ECB, on the one hand, and its creditors, debtors or any other person, on the other, shall be decided by the competent national courts, save where jurisdiction has been conferred upon the Court of Justice.

35.3. The ECB shall be subject to the liability regime provided for in Article 288 of this Treaty. The national central banks shall be liable according to their respective national laws.

35.4. The Court of Justice shall have jurisdiction to give judgement pursuant to any arbitration clause contained in a contract concluded by or on behalf of the ECB, whether that contract be governed by public or private law.

35.5. A decision of the ECB to bring an action before the Court of Justice shall be taken by the Governing Council.

35.6. The Court of Justice shall have jurisdiction in disputes concerning the fulfilment by a national central bank of obligations under this Statute. If the ECB considers that a national central bank has failed to fulfil an obligation under this Statute, it shall deliver a reasoned opinion on the matter after giving the national central bank concerned the opportunity to submit its observations. If the national central bank concerned does not comply with the opinion within the period laid down by the ECB, the latter may bring the matter before the Court of Justice.

Article 36
Staff

36.1. The Governing Council, on a proposal from the Executive Board, shall lay down the conditions of employment of the staff of the ECB.

36.2. The Court of Justice shall have jurisdiction in any dispute between the ECB and its servants within the limits and under the conditions laid down in the conditions of employment.

Article 37
Seat

Before the end of 1992, the decision as to where the seat of the ECB will be established shall be taken by common accord of the governments of the Member States at the level of Heads of State or Government.

Article 38
Professional secrecy

38.1. Members of the governing bodies and the staff of the ECB and the national central banks shall be required, even after their duties have ceased, not to disclose information of the kind covered by the obligation of professional secrecy.

38.2. Persons having access to data covered by Community legislation imposing an obligation of secrecy shall be subject to such legislation.

Article 39
Signatories

The ECB shall be legally committed to third parties by the President or by two members of the Executive Board or by the signatures of two members of the staff of the ECB who have been duly authorized by the President to sign on behalf of the ECB.

Article 40 (*)
Privileges and immunities

The ECB shall enjoy in the territories of the Member States such privileges and immunities as are necessary for the performance of its tasks, under the conditions laid down in the Protocol on the privileges and immunities of the European Communities.

Chapter VIII

Amendment of the Statute and complementary legislation

Article 41
Simplified amendment procedure

41.1. In accordance with Article 107(5) of this Treaty, Articles 5.1, 5.2, 5.3, 17, 18, 19.1, 22, 23, 24, 26, 32.2, 32.3, 32.4, 32.6, 33.1(a) and 36 of this Statute may be amended by the Council, acting either by a qualified majority on a recommendation from the ECB and after consulting the Commission, or unanimously on a proposal from the Commission and after consulting the ECB. In either case the assent of the European Parliament shall be required.

41.2. A recommendation made by the ECB under this Article shall require a unanimous decision by the Governing Council.

Article 42
Complementary legislation

In accordance with Article 107(6) of this Treaty, immediately after the decision on the date for the beginning of the third stage, the Council, acting by a

(*) As amended by Article 6, point III(4) of the Treaty of Amsterdam.

qualified majority either on a proposal from the Commission and after consulting the European Parliament and the ECB or on a recommendation from the ECB and after consulting the European Parliament and the Commission, shall adopt the provisions referred to in Articles 4, 5.4, 19.2, 20, 28.1, 29.2, 30.4 and 34.3 of this Statute.

Chapter IX

Transitional and other provisions for the ESCB

Article 43
General provisions

43.1. A derogation as referred to in Article 122(1) of this Treaty shall entail that the following Articles of this Statute shall not confer any rights or impose any obligations on the Member State concerned: 3, 6, 9.2, 12.1, 14.3, 16, 18, 19, 20, 22, 23, 26.2, 27, 30, 31, 32, 33, 34, 50 and 52.

43.2. The central banks of Member States with a derogation as specified in Article 122(1) of this Treaty, shall retain their powers in the field of monetary policy according to national law.

43.3. In accordance with Article 122(4) of this Treaty, 'Member States' shall be read as 'Member States without a derogation' in the following Articles of this Statute: 3, 11.2, 19, 34.2 and 50.

43.4. 'National central banks' shall be read as 'central banks of Member States without a derogation' in the following Articles of this Statute: 9.2, 10.1, 10.3, 12.1, 16, 17, 18, 22, 23, 27, 30, 31, 32, 33.2 and 52.

43.5. 'Shareholders' shall be read as 'central banks of Member States without a derogation' in Articles 10.3 and 33.1.

43.6. 'Subscribed capital of the ECB' shall be read as 'capital of the ECB subscribed by the central banks of Member States without a derogation' in Articles 10.3 and 30.2.

Article 44
Transitional tasks of the ECB

The ECB shall take over those tasks of the EMI which, because of the derogations of one or more Member States, still have to be performed in the third stage.

The ECB shall give advice in the preparations for the abrogation of the derogations specified in Article 122 of this Treaty.

Article 45
The General Council of the ECB

45.1. Without prejudice to Article 107(3) of this Treaty, the General Council shall be constituted as a third decision-making body of the ECB.

45.2. The General Council shall comprise the President and Vice-President of the ECB and the Governors of the national central banks. The other members of the Executive Board may participate, without having the right to vote, in meetings of the General Council.

45.3. The responsibilities of the General Council are listed in full in Article 47 of this Statute.

Article 46
Rules of Procedure of the General Council

46.1. The President or, in his absence, the Vice-President of the ECB shall chair the General Council of the ECB.

46.2. The President of the Council and a Member of the Commission may participate, without having the right to vote, in meetings of the General Council.

46.3. The President shall prepare the meetings of the General Council.

46.4. By way of derogation from Article 12.3, the General Council shall adopt its Rules of Procedure.

46.5. The Secretariat of the General Council shall be provided by the ECB.

Article 47
Responsibilities of the General Council

47.1. The General Council shall:

– perform the tasks referred to in Article 44;

– contribute to the advisory functions referred to in Articles 4 and 25.1.

47.2. The General Council shall contribute to:

– the collection of statistical information as referred to in Article 5;

– the reporting activities of the ECB as referred to in Article 15;

– the establishment of the necessary rules for the application of Article 26 as referred to in Article 26.4;

– the taking of all other measures necessary for the application of Article 29 as referred to in Article 29.4;

– the laying down of the conditions of employment of the staff of the ECB as referred to in Article 36.

47.3. The General Council shall contribute to the necessary preparations for irrevocably fixing the exchange rates of the currencies of Member States with a derogation against the currencies, or the single currency, of the Member States without a derogation, as referred to in Article 123(5) of this Treaty.

47.4. The General Council shall be informed by the President of the ECB of decisions of the Governing Council.

Article 48
Transitional provisions for the capital of the ECB

In accordance with Article 29.1 each national central bank shall be assigned a weighting in the key for subscription of the ECB's capital. By way of derogation from Article 28.3, central banks of Member States with a derogation shall not pay up their subscribed capital unless the General Council, acting by a majority representing at least two thirds of the subscribed capital of the ECB and at least half of the shareholders, decides that a minimal percentage has to be paid up as a contribution to the operational costs of the ECB.

Article 49
Deferred payment of capital, reserves and provisions of the ECB

49.1. The central bank of a Member State whose derogation has been abrogated shall pay up its subscribed share of the capital of the ECB to the same extent as the central banks of other Member States without a derogation, and shall transfer to the ECB foreign reserve assets in accordance with Article 30.1. The sum to be transferred shall be determined by multiplying the ECU value at current exchange rates of the foreign reserve assets which have already been transferred to the ECB in accordance with Article 30.1, by the ratio between the number of shares subscribed by the national central bank concerned and the number of shares already paid up by the other national central banks.

49.2. In addition to the payment to be made in accordance with Article 49.1, the central bank concerned shall contribute to the reserves of the ECB, to those provisions equivalent to reserves, and to the amount still to be appropriated to the reserves and provisions corresponding to the balance of the profit and loss account as at 31 December of the year prior to the abrogation of the derogation. The sum to be contributed shall be determined by multiplying the amount of the reserves, as defined above and as stated in the approved balance sheet of the ECB, by the ratio between the number of shares subscribed by the central bank concerned and the number of shares already paid up by the other central banks.

Article 50
Initial appointment of the members of the Executive Board

When the Executive Board of the ECB is being established, the President, the Vice-President and the other members of the Executive Board shall be appointed by common accord of the governments of the Member States at the level of Heads of State or Government, on a recommendation from the Council and after consulting the European Parliament and the Council of the EMI. The President of the Executive Board shall be appointed for eight years. By way of derogation from Article 11.2, the Vice-President shall be appointed for four years and the other members of the Executive Board for terms of office of between five and eight years. No term of office shall be renewable. The number of members of the Executive Board may be smaller than provided for in Article 11.1, but in no circumstance shall it be less than four.

Article 51
Derogation from Article 32

51.1. If, after the start of the third stage, the Governing Council decides that the application of Article 32 results in significant changes in national central banks' relative income positions, the amount of income to be allocated pursuant to Article 32 shall be reduced by a uniform percentage which shall not exceed 60% in the first financial year after the start of the third stage and which shall decrease by at least 12 percentage points in each subsequent financial year.

51.2. Article 51.1 shall be applicable for not more than five financial years after the start of the third stage.

Article 52
Exchange of banknotes in Community currencies

Following the irrevocable fixing of exchange rates, the Governing Council shall take the necessary measures to ensure that banknotes denominated in currencies with irrevocably fixed exchange rates are exchanged by the national central banks at their respective par values.

Article 53
Applicability of the transitional provisions

If and as long as there are Member States with a derogation Articles 43 to 48 shall be applicable.

Glossary

Accountability: the principle that an institution with decision-making authority is held responsible for its actions.

Bond market: the market in which longer-term debt securities are issued and traded. See **debt securities market**.

Broad Economic Policy Guidelines (BEPGs): adopted once a year by the **EU Council** to provide the framework for defining the economic policy objectives and orientations of the **Member States** and the European Community.

Central bank independence: both Article 108 (ex Article 107) of the **Treaty** and Article 7 of the Statute of the European System of Central Banks and of the European Central Bank establish the principle of central bank independence. In exercising their powers and carrying out the tasks and duties conferred upon them, neither the **European Central Bank (ECB),** nor the national central banks (NCBs), nor any member of their decision-making bodies may seek or take instructions from Community institutions or bodies, from any government of a **Member State** or from any other body. At the same time, Community institutions and bodies and the governments of the Member States must respect this principle and not seek to influence the members of the decision-making bodies of the ECB or of the NCBs.

Collateral: assets pledged as a guarantee for the repayment of loans (e.g. which **credit institutions** receive from central banks), as well as assets sold (e.g. to central banks by credit institutions) as part of **repurchase agreements**.

Consolidated MFI balance sheet: the consolidated balance sheet of the **Monetary Financial Institution (MFI)** sector is obtained by netting out inter-MFI positions (e.g. inter-MFI loans and deposits of money market funds with MFIs) on the aggregated MFI balance sheet. It provides information on the MFI sector's assets and liabilities vis-à-vis residents of the **euro area** not belonging to this sector (i.e. **general government** and other euro area residents) and vis-à-vis non-euro area residents. The consolidated balance sheet is the main statistical source for the calculation of **monetary aggregates** and it provides the basis for the regular analysis of the counterparts of **M3**.

Convergence criteria: the criteria established in Article 121 (1) of the **Treaty** (and developed further in Protocol No. 21) as a basis for the assessment of whether a country may participate in **Economic and Monetary Union (EMU)**. They relate to performance with regard to **price stability**, the government financial position, exchange rates and long-term interest rates. They also cover the compatibility of national legislation, including

the statutes of national central banks, with both the Treaty and the Statute of the European System of Central Banks and of the European Central Bank. Reports produced under Article 121 (1) by the **European Commission** and the **EMI** in 1998 examined whether each **Member State** had achieved a high degree of sustainable convergence on the basis of the fulfilment of these criteria.

Council: 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 contained 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. According to this definition, a credit institution is (a) an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account, or (b) an electronic money institution within the meaning of Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit and prudential supervision of the business of electronic money institutions.

Credit to euro area residents: a broad measure of the financing of non-**Monetary Financial Institution (MFI)** euro area residents (including **general government** and the private sector) provided by the MFI sector. It is defined as including MFI **loans to euro area residents** and MFI holdings of securities issued by **euro area** residents. The latter include shares, other equity and debt securities, including money market paper. As securities can be seen as an alternative source of funds to loans, and as some loans can be securitised, this definition provides more accurate information on the total amount of financing provided by the MFI sector to the economy than a narrow definition comprising loans only.

Currency in circulation: currency in circulation includes both banknotes and coins in circulation which are commonly used to make payments. It includes banknotes issued by the **Eurosystem** as well as the coins issued by some national central banks of the Eurosystem and by central government. Currency in circulation as included in **M3** is a net concept, i.e. it refers only to banknotes and coins in circulation which are held outside the **Monetary Financial Institution (MFI)** sector, as shown on the **consolidated MFI balance sheet** (i.e. currency issued but held by MFIs – "vault cash" – has been subtracted). Currency in circulation does not include a central bank's stock of own banknotes (as they are not issued), or commemorative coins which are not commonly used to make payments.

Debt ratio: the subject of one of the fiscal **convergence criteria** laid down in Article 104 (2) of the **Treaty**. It is defined as the ratio of government debt to gross domestic product at current market prices, while government

debt is defined in Protocol No. 20 (on the **excessive deficit procedure**) as the total gross debt at nominal value outstanding at the end of the year and consolidated between and within the sectors of **general government**. General government is as defined in the **European System of Accounts 1995 (ESA 95)**.

Debt securities market: the market in which debt instruments are issued and traded. A debt security represents a promise to make regular payments for a specified period of time.

Deficit ratio: the subject of one of the fiscal **convergence criteria**. It is defined in Article 104 (2) of the **Treaty** as the ratio of the planned or actual government deficit to gross domestic product at current market prices. The government deficit is defined in Protocol No. 20 on the **excessive deficit procedure** as net borrowing of the **general government**. General government is as defined in the **European System of Accounts 1995 (ESA 95)**.

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: this category consists of savings deposits for which the holder has to respect a fixed period of notice before being able to withdraw funds. In some cases there is the possibility of withdrawing a certain fixed amount in a specified period or of earlier withdrawal subject to the payment of a penalty. Deposits redeemable at a period of notice of up to three months belong to **M2** (and hence to **M3**), while those with a longer period of notice do belong to the (non-monetary) longer-term financial liabilities of the **Monetary Financial Institution (MFI)** sector.

Deposits with an agreed maturity: this instrument category consists mainly of time deposits with a given maturity which, depending on national practices, may be either not convertible prior to maturity or convertible only subject to a penalty. It also encompasses some non-transferable debt instruments, such as non-transferable (retail) certificates of deposit. Deposits with an agreed maturity of up to two years are included in **M2** (and hence in **M3**), while those with an agreed maturity of over two years are included in the (non-monetary) longer-term financial liabilities of the **Monetary Financial Institution (MFI)** sector.

Derivatives market: the issuing and trading market for financial contracts, the value of which is related to underlying securities prices, interest rates, foreign exchange rates, market indices or commodity prices. The basic classes of derivative are **futures contracts**, **options**, **swaps** and **forward rate agreements**.

Economic and Financial Committee: a consultative Community body set up at the start of Stage Three of **Economic and Monetary Union (EMU)**. The **Member States**, the **European Commission** and the **European Central Bank (ECB)** each appoint no more than two members of the Committee. One of the two members appointed by each of the Member States is selected from among senior officials from the respective national administration and the other from among senior officials from the respective national central bank. Article 114 (2) of the **Treaty** contains a list of the tasks of the Economic and Financial Committee, which include reviewing the economic and financial situation of the Member States and of the Community.

Economic and Monetary Union (EMU): the **Treaty** describes the process of achieving Economic and Monetary Union in the European Union 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 European Union. 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**.

ECU (European Currency Unit): prior to Stage Three of EMU, the ECU was a basket currency made up of the sum of fixed amounts of 12 out 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 official ECU served as the numeraire of the **ERM** and as a reserve asset for central banks.

Effective exchange rates (nominal/real): nominal effective exchange rates consist of a weighted average of selected bilateral exchange rates. The nominal effective exchange rate of the **euro** calculated by the **European Central Bank (ECB)** is a geometric weighted average of the exchange rates of the euro against the currencies of 13 trading partners of the **euro area.** The weights reflect the trade shares of the respective countries in euro area trade. Real effective exchange rates are nominal effective exchange rates adjusted for differences between foreign and domestic prices and costs. They are thus measures of price and cost competitiveness. The real effective exchange rate for the euro is calculated using consumer price indices (e.g. the **Harmonised Index of Consumer Prices (HICP)** for the euro area and other EU **Member States**).

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 contracts on deposits denominated in euro, as reported by a panel of contributing banks.

Equity market: the market in which equities are issued and traded. Equities are claims to a share in the ownership of a business. A major difference between equity and debt is that the former does not have to be repaid by the issuer.

ERM (exchange rate mechanism): the exchange rate and intervention mechanism of the **European Monetary System** defined the exchange rate of participating currencies in terms of central rates against the **ECU**. These central rates were used to establish a table of bilateral central rates between participating currencies. Exchange rates were allowed to fluctuate within a band around the bilateral central rates. The central rates could be adjusted, subject to mutual agreement between all countries participating in the ERM. The ERM ceased to exist with the start of Stage Three of **Economic and Monetary Union (EMU)** when **ERM II** was established.

ERM II (exchange rate mechanism II): the exchange rate arrangement which provides the framework for exchange rate policy co-operation between the **euro area** and **EU Member States** not participating in the euro area from the start of Stage Three of **Economic and Monetary Union (EMU)**. Membership of the mechanism is voluntary. Nevertheless, Member States with a derogation are expected to join the mechanism. 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**).

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 calculated daily for interbank deposits with a maturity of one week and one to 12 months as the average of the daily offer rates of a representative panel of prime banks, rounded to three decimal places.

Euro: the name of the European currency adopted by the **European Council** at its meeting in Madrid on 15 and 16 December 1995 and used instead of the term **ECU (European Currency Unit)** employed in the **Treaty**.

Euro area: the area encompassing those **Member States** in which the **euro** has been adopted as the single currency in accordance with the **Treaty**

and in which a single monetary policy is conducted under the responsibility of the **Governing Council** of the **European Central Bank (ECB)**.

European Central Bank (ECB): the ECB lies at the centre of the **European System of Central Banks (ESCB)** and the **Eurosystem** and has legal personality under Community law. It ensures that the tasks conferred upon the Eurosystem and the ESCB are implemented either by its own activities pursuant to the Statute of the European System of Central Banks and of the European Central Bank or through the national central banks.

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.

European Council: provides the European Union with the necessary impetus for its development and defines the general political guidelines thereof. It brings together the Heads of State or Government of the **Member States** and the President of the **European Commission** (see also **EU Council**).

European Monetary Institute (EMI): a temporary institution established at the start of Stage Two of **Economic and Monetary Union (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 following the establishment of the **European Central Bank (ECB)** on 1 June 1998.

European Monetary System (EMS): an exchange rate regime established in 1979 in accordance with the Resolution of the **European Council** of 5 December 1978. Its operating procedures were laid down by the Agreement of 13 March 1979 between the central banks of the Member States of the European Economic Community (EEC). The objective was to create closer monetary policy co-operation between Community countries, leading to a zone of monetary stability in Europe. The main components of the EMS were the **ECU**, the exchange rate and intervention mechanism (**ERM**) and various credit mechanisms. It ceased to exist at the start of Stage Three of **Economic and Monetary Union (EMU),** when ERM II was established.

European Parliament: consists of 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. 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 the monetary policy, hearings before the competent parliamentary committees).

European System of Accounts 1995 (ESA 95): a system of uniform statistical definitions and classifications aimed at achieving a harmonised quantitative description of the economies of the **Member States**. The ESA is the Community's version of the United Nation's System of National Accounts. The ESA 95 is the latest version of the European system and its implementation began in the course of 1999 in accordance with Council Regulation (EC) No. 2223/96.

European System of Central Banks (ESCB): the ESCB is composed of the **European Central Bank (ECB)** and the national central banks of all 15 **Member States**, i.e. it includes, in addition to the members of the **Eurosystem**, the national central banks of the Member States which have not yet adopted the **euro.**

Eurostat: the Statistical Office of the European Communities. Eurostat is part of the **European Commission** and is responsible for the production of Community statistics. It collects and systematically processes data, produced mainly by the national authorities, within the framework of comprehensive five-yearly Community statistical programmes.

Eurosystem: comprises the **European Central Bank (ECB)** and the national central banks of the **Member States** which have adopted the **euro** in Stage Three of **Economic and Monetary Union (EMU)** (see also **euro area**). There are currently 12 national central banks in the Eurosystem. The Eurosystem is governed by the **Governing Council** and the **Executive Board** of the ECB.

Eurosystem staff 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 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**.

Excessive deficit procedure: the procedure set out in Article 104 of the **Treaty** and further elaborated in Protocol No. 20 on the excessive deficit procedure. Article 104 requires **Member States** to maintain budgetary discipline, defines the conditions which must prevail for a budgetary position to be judged satisfactory, and specifies the steps to be taken should these conditions not be fulfilled. In particular, it sets out the fiscal **convergence criteria** (government **deficit ratio** and **debt ratio**), the procedure leading

to and following an **EU Council** decision that an excessive deficit exists in a certain Member State, including further steps to be taken in the event that an excessive deficit situation persists. The **Stability and Growth Pact** includes further provisions aimed at clarifying and speeding up the implementation of the excessive deficit procedure.

Exchange rate targeting: a monetary policy strategy aimed at maintaining **price stability** by focusing on a stable (or even fixed) exchange rate against another currency or group of currencies.

Executive Board: one of the decision-making bodies of the **European Central Bank (ECB)**. It comprises the President and the Vice-President of the ECB and four other members appointed by common accord by the Heads of State or Government of the **Member States** which have adopted the **euro**.

Financial markets: markets in which those who have a surplus of funds lend to those who have a shortage.

Fine-tuning operation: a non-regular **open market operation** executed by the **Eurosystem** mainly to deal with unexpected liquidity fluctuations in the markets.

Forward rate agreement (FRA): an agreement whereby one party undertakes to pay another party a certain interest rate on a certain principal amount for a certain period of time beginning at some point in the future.

Foreign exchange swap: simultaneous spot and forward transactions exchanging one currency against another. The **Eurosystem** can execute open market monetary policy 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.

Futures contract: a contract to buy or sell securities or a commodity at a predetermined price on a specified future date.

General Council: one of the governing 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: one of the governing bodies of the **European Central Bank (ECB)**. It comprises all the members of the **Executive Board** of the ECB and the governors of the national central banks of the **Member States** which have adopted the **euro**.

Harmonised Index of Consumer Prices (HICP): the HICP was developed by the European Commission (Eurostat) in close liason with the national statistical institutes and the **European Monetary Institute (EMI),** and later the **European Central Bank (ECB).** The HICP is the measure of prices used by the ECB to define **price stability** in quantitative terms.

Harmonised long-term interest rates: Protocol No. 21 on the **convergence criteria** referred to in Article 121 (ex Article 109j) of the **Treaty** requires interest rate convergence to be measured on the basis of interest rates on long-term government bonds or comparable government securities, taking into account differences in national definitions. The **European Monetary Institute (EMI)** therefore carried out conceptual work on the harmonisation of long-term interest rate statistics and collected the data from national central banks on behalf of the **European Commission** (**Eurostat**). This task has been taken over by the **European Central Bank (ECB)**.

Inflation targeting: a monetary policy strategy aimed at maintaining **price stability** by focusing on deviations in inflation forecasts from a published inflation target.

Investment: gross fixed capital formation as defined in the **European System of Accounts 1995 (ESA 95)**.

Key ECB interest rates: the interest rates which determine 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 the interest rate on the **main refinancing operations** (the fixed rate in fixed rate tenders and the minimum bid rate in variable rate tenders), the interest rate on the **marginal lending facility** and the interest rate on the **deposit facility**.

Labour force participation rate: the labour force as a proportion of the total working age population. The working age population is the population aged between 15 and 64 years of age. The labour force comprises both employed and unemployed persons.

Leading indicators: economic variables which anticipate or contain useful information for predicting future developments in other variables.

Loans to euro area residents: funds lent by **Monetary Financial Institutions (MFIs)** to borrowers and not evidenced by negotiable documents or represented by one single document (if it has become negotiable). This description includes loans granted to households, non-financial corporations and government. Loans to households can take the form of consumer credit (loans granted for personal use in the consumption of goods and services), lending for house purchases (credit extended for the purpose of investing in housing, including building and home improvements)

and other lending (loans granted for purposes such as debt consolidation, education, etc.) (see also **credit to euro area residents**).

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.

M1, M2, M3: see **monetary aggregates**.

Maastricht Treaty: see **Treaty**.

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 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**).

Member State: a country which is a member of the European Union.

Minimum bid rate: the lower limit to the interest rates at which **counterparties** may submit bids in the variable rate tenders (see **key ECB interest rates**).

Monetary aggregates: a monetary aggregate can be defined as the sum of **currency in circulation** plus outstanding amounts of certain liabilities of **Monetary Financial Institutions (MFIs)** that have a high degree of "moneyness" (or liquidity in a broad sense). The narrow monetary aggregate M1 has been defined by the **Eurosystem** as currency in circulation plus **euro area** residents' (other than central government) holdings of **overnight deposits** with euro area MFIs. The monetary aggregate M2 comprises M1 plus **deposits with an agreed maturity** of up to two years and **deposits redeemable at notice** of up to three months. The broad monetary aggregate M3 comprises M2 plus **repurchase agreements** and money market fund shares/units as well as money market paper and debt securities with a maturity of up to two years. The **Governing Council** has announced a reference value for the growth of M3 (see also **reference value for monetary growth**).

Monetary Financial Institutions (MFIs): financial institutions which form the money-issuing sector of the **euro area**. These include central banks, resident **credit institutions** as defined in Community law and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credit and/or invest in securities. The latter group consists predominantly of money market funds.

Monetary targeting: a monetary policy strategy aimed at maintaining **price stability** by focusing on the deviations of money growth from a target.

Money demand: a key economic relationship that represents the demand for money balances by non-**Monetary Financial Institutions (MFIs)**. The demand for money is often expressed as a function of prices and economic activity, which serves as a proxy for the level of transactions in the economy, and certain interest rate variables, which measure the opportunity costs of holding money and the return on holding money.

Money market: the market in which short-term funds are raised, invested and traded using instruments which generally have an original maturity of less than one year.

Neutrality of money: a basic economic principle stating that in the long run changes in the money supply only lead to changes in nominal variables but not in real variables. Changes in the money supply will therefore have no long-term effect on variables such as real output, unemployment or real interest rates.

Nominal effective exchange rates: see **effective exchange rates (nominal/real)**.

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: a financial instrument which gives the owner the right, without obligation, to buy or sell specific assets (e.g. bonds or shares) at a predetermined price (the strike price 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 assets at an agreed exercise price, whereas a put option gives the holder the right to sell them at an agreed price.

Output gap: the difference between the actual and potential levels of output of an economy expressed as a percentage of potential output. The rate of

growth of potential output may be considered to be the rate of real output growth that can be sustained in the medium to long term. This may be similar in practice to the trend rate of growth of the economy. Potential output, and therefore also the output gap, are very difficult to estimate in real time.

Outright transaction: a transaction whereby assets are bought or sold outright in the market (spot or forward).

Overnight deposits: deposits with next-day maturity. This instrument category comprises mainly those sight/demand deposits which are fully transferable (by cheque or similar instrument). It also includes non-transferable deposits that are convertible on demand or by close of business the following day. Overnight deposits are included in M1 (and hence in M3).

Price stability: the maintenance of price stability is the primary objective of the **European Central Bank (ECB)**. The **Governing Council** has published a quantitative definition of price stability in order to give clear guidance to expectations of future price developments and to be accountable. The Governing Council has 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.

Projections: see **Eurosystem staff projections**.

Real effective exchange rates: see **effective exchange rates (nominal/ real)**.

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.

Reference value for the fiscal position: Protocol No. 20 on the **excessive deficit procedure** sets explicit reference values for the **general government deficit ratio** (3% of GDP) and the **debt ratio** (60% of GDP) (see also **Stability and Growth Pact**).

Repurchase agreement: an arrangement whereby an asset is sold but the seller has a right and an obligation to repurchase it at a specific price on a future date or on demand. Such an agreement is similar to collateralised borrowing, except that ownership of the securities is in this case not retained by the seller. The **Eurosystem** uses repurchase agreements with a fixed maturity in its **reverse transactions.** Repurchase transactions are included in **M3** in cases where the seller is a **Monetary Financial Institution (MFI)** and the **counterparty** is a non-MFI resident in the **euro area**. According to the ECB Regulation concerning the consolidated balance sheet of the monetary financial institutions sector (ECB/1998/16), **repurchase operations (repos)** are classified as deposit liabilities since they are not transferable. However, repos are not included in M2 because they have a higher degree of substitutability with short-term securities than with **deposits with an agreed maturity** or **deposits redeemable at notice**. Moreover, they have a wholesale character, whereas traditional bank deposits are of a retail nature.

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 minimum amount of reserves a **credit institution** is required to hold with a 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 in the **reserve base** by the amount of those items on the institution's balance sheet. In addition, institutions are allowed to deduct a lump-sum allowance from their reserve requirement.

Reverse transaction: an operation whereby the central bank buys or sells assets under a **repurchase agreement** or conducts credit operations against **collateral**.

Stability and Growth Pact: consists of two **EU Council** Regulations on "the strengthening of the surveillance of budgetary positions and the surveillance and co-ordination of economic policies" and on "speeding up and clarifying the implementation of the **excessive deficit procedure"** and of a **European Council** Resolution on the Stability and Growth Pact, as adopted at the Amsterdam summit on 17 June 1997. The Pact 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 their government deficit below the **reference value** of 3% of GDP. In accordance with the Stability and Growth Pact, countries participating in EMU will report **stability programmes**, while non-participating countries will continue to provide convergence programmes.

Stability programmes: Member States which have adopted the single currency must provide medium-term government plans, including their assumptions for 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 in these programmes. Stability programmes must be updated annually. They are examined by the **European Commission** and the **Economic and Financial Committee**. Their reports serve as the basis for an assessment by the **ECOFIN** Council that focuses, in particular, on whether the medium-term budgetary objective in the programme provides an adequate safety margin to ensure that an excessive deficit is avoided. Countries which have not yet adopted the **euro** must submit annual convergence programmes, in accordance with the **Stability and Growth Pact**.

Stage One, Stage Two, Stage Three: see **Economic and Monetary Union (EMU)**.

Standard tender: a tender procedure used by the **Eurosystem** in its regular **open market operations**. Standard tenders are carried out within 24 hours. All **counterparties** fulfilling the general eligibility criteria are entitled to submit bids.

Standing facility: a central bank facility available to **counterparties** on their own initiative. The **Eurosystem** offers two overnight standing facilities: the **marginal lending facility** and the **deposit facility**.

Stock market: see **equity market**.

Swap: an agreement to exchange future cash flows according to a prearranged formula (see **foreign exchange swap**).

Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET): a payment system composed of one real-time gross settlement (RTGS) system in each of the 15 **Member States** and the ECB payment mechanism (EPM) of the **European Central Bank (ECB)**. The national RTGS systems and the EPM are interconnected by common procedures (interlinking) to allow cross-border transfers throughout the European Union to move from one system to another.

Transmission mechanism: process through which monetary policy decisions affect the economy in general and price levels in particular. It comprises a variety of complex and often interlinked transmission channels.

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 European Union. The "Treaty of Amsterdam", which was signed in Amsterdam on 2 October 1997 and entered into force on 1 May 1999, amended both the Treaty establishing the European Community and the Treaty on European Union. Equally, the "Treaty of Nice", which concluded the 2000 Intergovernmental Conference and was signed on 26 February 2001, will further amend the Treaty establishing the European Community and the Treaty on European Union, once it is ratified and enters into force.

Two-pillar strategy: the monetary policy strategy of the **European Central Bank (ECB)** rests on the quantitative definition of **price stability** and two analytical frameworks ("pillars") which contribute to assessing the risks to future price stability. The first pillar assigns a prominent role to money – monetary and credit developments are thoroughly analysed for their information content. It includes a reference value for monetary growth and a number of models in which monetary and credit developments play a role in determining or projecting price developments. The second pillar consists of the analysis of a wide range of other economic and financial variables. It includes various models in which cost pressures and the relationship between supply and demand in goods, service and labour markets determine price developments.

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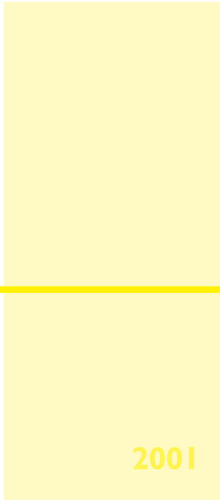

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