Deutsche Bundesbank
Annual Report 2002

We mourn the death in the year 2002

of the former Member of the Directorate of the Deutsche Bundesbank

Dr Heinrich Irmler

† 27 April 2002

and of the following members of our staff

Martin Silbernagel	13 March 2002
Erwin Hoffmann	15 March 2002
Jörg-Rüdiger Ackermann	29 March 2002
Karl-Heinz Kleine	31 March 2002
Detlef Brüggmann	2 April 2002
Jürgen Zimmer	23 May 2002
Karl Adolf Raschke	26 May 2002
Gerhard Kayka	27 May 2002
Mechthild Herrmann	18 June 2002
Hartmut Bankert	27 June 2002
Werner Karl	27 June 2002
Hans-Dieter Wagner	7 July 2002
Werner Halbe	20 July 2002
Reiner Köpke	24 July 2002
Hannelore Baumann	30 July 2002
Josef Müller	1 August 2002
Thomas Nönnecke	11 August 2002
Ingrid Randello	20 August 2002
Manfred Walpert	21 August 2002
Uwe-Peter Grulke	7 September 2002
Peter Kurzhals	23 October 2002
Peter Gleim	3 November 2002
Arnulf Schneider	26 November 2002

We also remember the retired staff members of the Bank who died in 2002.

We will honour their memory.

DEUTSCHE BUNDESBANK

Members of the Executive Board of the Deutsche Bundesbank

since 1 May 2002

Ernst Welteke
President of the Deutsche Bundesbank

Dr Jürgen Stark
Vice-President
of the Deutsche Bundesbank

Dr Hans Georg Fabritius

Hans-Helmut Kotz

Edgar Meister

Dr Hans Reckers

Professor Hermann Remsperger

Professor Franz-Christoph Zeitler

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from 1 January 2002
to 30 April 2002

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Dr Hans Georg Fabritius

Dieter Haferkamp

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Dr Christian Milow

Dr Hans Reckers

Professor Hermann Remsperger

Helmut Schieber

Professor Franz-Christoph Zeitler

Members of the Directorate of the Deutsche Bundesbank

from 1 January 2002
to 30 April 2002

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President
of the Deutsche Bundesbank

Dr Jürgen Stark
Vice-President
of the Deutsche Bundesbank

Dr Hans Georg Fabritius

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Edgar Meister

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from 1 January 2002
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(until 31 January 2002)

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Dr Christian Milow
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Abbreviations and symbols

p	Provisional
r	Revised
e	Estimated
pe	Partly estimated
...	Figure available at a later date
.	Figure unknown, not to be published or not meaningful
0	Less than 0.5 but more than nil
–	Nil

Discrepancies in the totals are due to rounding.

Foreword
by the President
of the Deutsche Bundesbank

Foreword

The year 2002 witnessed radical changes at the Deutsche Bundesbank. The amended Bundesbank Act brought the Bank's management and decision-making structures into line with the new situation obtaining under monetary union. Since 1 May 2002 the Bank has been run by a new eight-member Executive Board as the sole management body. This put an end to the previous division of management responsibilities between the Central Office and the nine Land Central Banks (renamed "Regional Offices"), which now form a single organisational entity.

The newly appointed Executive Board swiftly initiated extensive changes in the Bank's structure. It drew up a blueprint for remodelling the Bank's organisational and operational structures with a view to enhancing the quality of the services it provides and improving efficiency. The Board also decided to further reduce the number of branches. Although this will render the Bank's branch network less dense in the medium term, nationwide coverage will continue to be ensured. In addition, the Board realigned its business policy in the field of cash operations. In future the Bank will concentrate its activities in this area of business on a defined range of standard services, in keeping with the policy adopted by the Eurosystem as a whole.

Once the internal reform process has been completed, the "new" Bundesbank will be optimally structured for fulfilling its diverse tasks. As part of the Eurosystem it will be involved in maintaining price stability; in addition, it will continue to play a major role in the fields of international cooperation, payment operations, banking supervision and statistics, as well as acting as the Federal Government's fiscal agent.

The Bank's restructuring coincides with an era of major economic and political challenges. The global economic upturn that had been expected last year rapidly lost momentum very soon after it had begun. Although the world economy is likely to pick up in the course of this year, the outlook is subject to exceptionally large risks – particularly because of the prevailing geopolitical tensions. Hesitancy and risk aversion are currently the dominant parameters of economic activity, not least in Germany.

In 2002 the German economy again experienced a very difficult year. GDP grew by just 0.2%, which was far less than had generally been expected at first. The level of investment, which is a barometer of business sentiment regarding future developments, fell substantially. The number of unemployed increased by more than 200,000 on average last year. Moreover, the near-stagnation of the economy, compounded by fiscal policy shortcomings, led Germany to run up a budget deficit of 3.6% of GDP in 2002 and thus to infringe the provisions of the Stability and Growth Pact. On the positive side, prices were largely stable – even though the introduction of euro banknotes and coins caused some consumers to perceive a distinct increase in prices. On average consumer prices rose in 2002 by merely 1.3% in Germany and 2.2% in the euro area as whole. Some relief was afforded by the appreciation of the euro, which moderated external inflationary pressures stemming, for example, from the fact that oil prices surged for a time. The decline in the risks to price stability enabled the Governing Council of the ECB to cut official interest rates by ½ percentage point in December 2002 and by another 25 basis points at the beginning of March 2003.

The German banking system had to contend last year not only with the deteriorating overall economic situation but also with the persisting bear market on the stock exchanges and substantial loan losses. This caused the banks to set up considerable risk provisions in their balance sheets, although it cannot be inferred from this that they have acute liquidity or solvency difficulties. The German banking system remains fundamentally sound. It is true, however, that German credit institutions are confronted with serious profitability problems. They have therefore already taken measures to cut costs, widen their profit margins and reduce their risk positions.

The German economy has been suffering from a crisis of growth and confidence for some time. The array of economic policy problems encompasses fiscal and tax policy, the social security system, the regulation of the labour market and education policy. Overcoming these rigidities requires a cogent overall strategy, geared to the medium term, for structural policy reforms and the appropriate application of macropolicies. It is only by combining individual measures and harnessing the efforts of different policy fields within a coherent overall concept that the necessary dynamism can be generated to energise the German economy. Key economic prerequisites for this are in place. Germany has a well-developed infrastructure, an internationally competitive industrial sector, an efficient financial sector (despite the aforementioned problems) and high labour productivity per employee.

After first analysing the international and European setting, this *Annual Report* describes the Eurosystem's monetary policy and the evolution of the financial markets during the past year. It then comments on economic activities in Germany and on recent developments in international and European cooperation. In addition, it outlines the Bundesbank's structural reform. This *Annual Report* also presents the Bank's annual accounts for 2002, which have been drawn up by the Executive Board and approved by a firm of independent auditors.

On behalf of the Executive Board, I should like to express my gratitude to all members of the Bank's staff for their work in 2002. Besides thanking them for their commitment, I invite them to participate actively in the Bank's restructuring and to view the "new" Bundesbank also as a creator of opportunities. Finally, I should like to record my thanks to the staff representative bodies for their invariably close cooperation.

Frankfurt am Main, March 2003

Ernst Welteke
President of the Deutsche Bundesbank

Currency and economy

I The international and European setting

1 The global economic background

Slow recovery of the world economy

The recovery of the world economy faltered in the second half of 2002 after making brisk progress in the early part of the year. Global output grew by 3% overall last year and thus a little faster than in 2001 (2½%), and the growth curve was flatter than expected. Macroeconomic momentum was hampered primarily by the persistence of the ongoing uncertainty among both enterprises and investors, which led to marked investment restraint and to a "flight to quality" in the form of secure bonds. The situation was compounded by the escalating geopolitical tensions. They contributed to a further slide in equity prices on the stock markets and – together with the general strike in Venezuela – to a sharp surge in oil prices. By contrast, private consumption was a mainstay of business activity in many countries.

Growth impulses from the USA ...

This applies especially to the United States, which once again was a major engine of global economic activity. The US upswing was very uneven, however, and is still by no means solidly based. Low interest rates, expansionary monetary and fiscal policy stances as well as exceptional factors, such as the favourable financing terms offered by motor vehicle manufacturers and the refinancing of mortgages with locked-in interest rates, stimulated demand at least for a time. Besides consumption, therefore, housing construction gave a particular boost to overall economic expansion in the USA. Real gross domestic product (GDP) grew by 2½% on average last year. However, the pace of growth was dampened, especially in the second half of 2002, by the renewed fall in share prices, which led to negative wealth effects and made it harder for firms to raise equity capital.

... and emerging-market economies in Asia

The world economy also received a positive impetus in 2002 from the emerging-market economies in Asia, even though their economic dynamism subsided somewhat compared with 2001. The region as a whole benefited from the stabilisation of the information and communication technology sector and the continuing strong growth of China, which recorded an 8% real increase in output compared with 2001. At the same time, the state of public finances in many countries deteriorated sharply and now requires strenuous efforts from economic policymakers to achieve fiscal consolidation.

Macroeconomic benchmark figures of selected industrialised countries

Table 1

Countries	Real GDP 2001	Real GDP 2002 pe	Consumer prices 1 2001	Consumer prices 1 2002 pe	Current account balance 2001	Current account balance 2002 pe	Unemployment rate 2 2001	Unemployment rate 2 2002 pe
	Year-on-year change in %				As % of GDP		In %	
OECD	0.8	1.5	2.4	1.5	.	.	6.5	6.9
of which								
Euro area	1.4	0.8	2.5	2.2	– 0.2	0.7	8.0	8.3
United Kingdom	2.0	1.6	1.8	1.6	– 1.6	– 1.5	5.0	5.2
United States	0.3	2.4	2.8	1.6	– 3.5	– 4.8	4.8	5.8
Japan	0.4	0.3	– 0.7	– 0.9	2.1	3.0	5.0	5.4
Canada	1.5	3.4	2.6	2.2	2.8	1.7	7.2	7.7

Sources: IMF, ECB, OECD, national statistics. — **1** Consumer price index; OECD: excluding high-inflation countries. — **2** Standardised unemployment rate, based on OECD and Eurostat calculations.

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Commonwealth of Independent States boosted by high commodity prices

Economic activity in the Commonwealth of Independent States (CIS) proved very robust, recording real growth of 4%. In particular, those CIS countries which are exporters of crude oil and natural gas profited from the high prices on the international commodity markets. However, the comparatively narrow diversification of their exports concurrently increased their external vulnerability in the event of a reversal of these price trends. Additional risks stem from the fact that most CIS countries have a substantial exposure to foreign creditors.

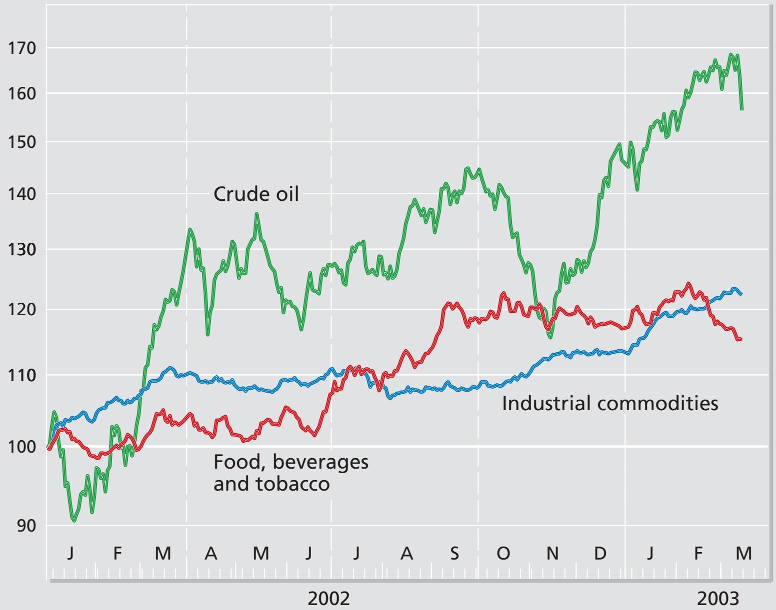
Robust economic development in the EU accession countries

The EU accession candidates have so far been relatively unaffected by the macroeconomic sluggishness currently facing their main trading partners, particularly the euro-area countries. The GDP of the EU accession candidates as a whole grew by around 3% in 2002, although the individual growth rates showed a wide dispersion around this average. Growth was fuelled mainly by buoyant domestic demand reinforced by fiscal incentives. An expansionary government expenditure policy, however, has left many of the accession countries with little room for manoeuvre in fiscal policy. Another factor promoting growth was the record inflow of foreign direct investment, which reflects the considerable reform progress that has been made by these countries in some cases. In

Commodity prices*

Chart 1

Start of 2002 = 100,[1] daily data, log scale



Source: The Hamburg Institute of Intenational Economics (HWWA). — * On a US dollar basis. — **1** Rebased from the original base 1990 = 100.

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particular, those countries which the European Council of Copenhagen agreed to admit to the EU in 2004 attracted the confidence of investors.

Japan's economic development still burdened by unresolved structural problems

In Japan economic growth strengthened appreciably in the course of 2002, although after the turn of the year 2002-03 the retarding influences gained in importance. The main impetus for the Japanese economy in 2002 came initially from exports, although in the course of the year domestic demand also picked up noticeably. On an average GDP expanded in 2002 by only ¼% owing to the weak starting position at the end of 2001. Japan's economic development remains burdened by considerable structural problems. These are mainly due to the still critical situation of the Japanese banking sector and the difficult financial position of the public sector. It remains to be seen whether the reforms announced at the end of 2002, which notably include measures to reduce the amount of non-performing loans, will suffice to achieve a lasting solution at least for the banks.

Crises in Latin America still not overcome

The economic situation in Latin America remained tense in 2002. Only in Mexico did a hesitant upturn begin to emerge, fuelled principally by domestic demand – which in turn was boosted by rising crude oil prices. By contrast, Argentina has not yet overcome the consequences of state bankruptcy at the turn of 2001-02. Its economic output contracted for the fourth year running. Following a cautious relaxing of restrictions on foreign exchange and capital movements at the beginning of 2003, an agreement was reached with the IMF which includes a short-term bridging loan and thus gives the country a breathing space to reschedule its external liabilities on the basis of a common accord. Brazil avoided the feared collapse of its financial system. Since the presidential elections, a certain stabilisation of the financial markets has become apparent; however, the country's high level of government debt remains a cause for concern. The future course of development hinges crucially on the new government's economic policy. The strikes in Venezuela which virtually halted the country's oil exports at the turn of 2002-03 had repercussions that extended beyond Latin America.

Global economic outlook hampered by political uncertainty

Attempts to assess the global economic outlook are currently subject to an exceptionally high degree of uncertainty. Part of this uncertainty is economic in origin, such as the high and in some cases unsustainable current account balances or the fiscal consolidation requirements in many countries. Of at least equal importance are the political challenges resulting from the threat posed by international terrorism and the tensions in the Middle East. It is next to impossible at the moment to gauge their economic implications, however. It is therefore hardly surprising that enterprises are holding back with their investment plans and that investors are shying away from risks.

General economic conditions improved

At the same time, however, some general economic conditions for a cyclical recovery have improved. The risks to price stability are fairly small, despite the increase in commodity prices. In the industrial countries consumer prices went up by just 1½% on average last year. This allowed various central banks, including the US Federal Reserve Bank and the European Central Bank (ECB), to further ease their monetary policy stance. In several countries, such as the United States with its federal funds rate of 1.25%, central bank interest rates have fallen to their lowest level since the first half of the 1960s, and the provision of liquidity by the central banks is on the whole ample. Bond yields, too, fell further last year. They are currently at an extremely low level – at least for top-rated borrowers.

Low risk of deflation despite slack demand

The moderate pressure on prices and the low central bank interest rates – coupled with the current cyclical slowdown – have conjured up the fear of deflation. For the world economy as a whole, however, this danger is not considered very high. There is thus a consensus among international organisations that the expansion of the global economy will pick up speed in the course of this year. According to these forecasts, world trade, too, will grow significantly in 2003. This is likely to further lessen the demand-side pressure on prices. In addition, both the US Federal Reserve Bank and the ECB have sufficient policy leeway to be able to counter the danger of a general decrease in the price level. At the moment, deflationary tendencies are confined to Japan and – to a lesser extent – certain emerging-market economies in Asia. For these countries it is therefore particularly important that the slump in demand for IT products, which had forced producers to cut their prices appreciably, now appears to have run its course.

EU enlargement for 2004 decided

Positive effects on the international division of labour, and hence also on the global economy as a whole, are expected to ensue from the ongoing process of European integration. Following the conclusion of accession negotiations, the European Council agreed in December 2002 to admit ten more countries to the European Union on 1 May 2004. These are Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia. Two other countries (Bulgaria and Romania) were given the prospect of joining in 2007. In the case of Turkey it was agreed that a decision on an immediate commencement of accession negotiations would be taken in 2004 (for details of the EU's enlargement see pages 93-95).

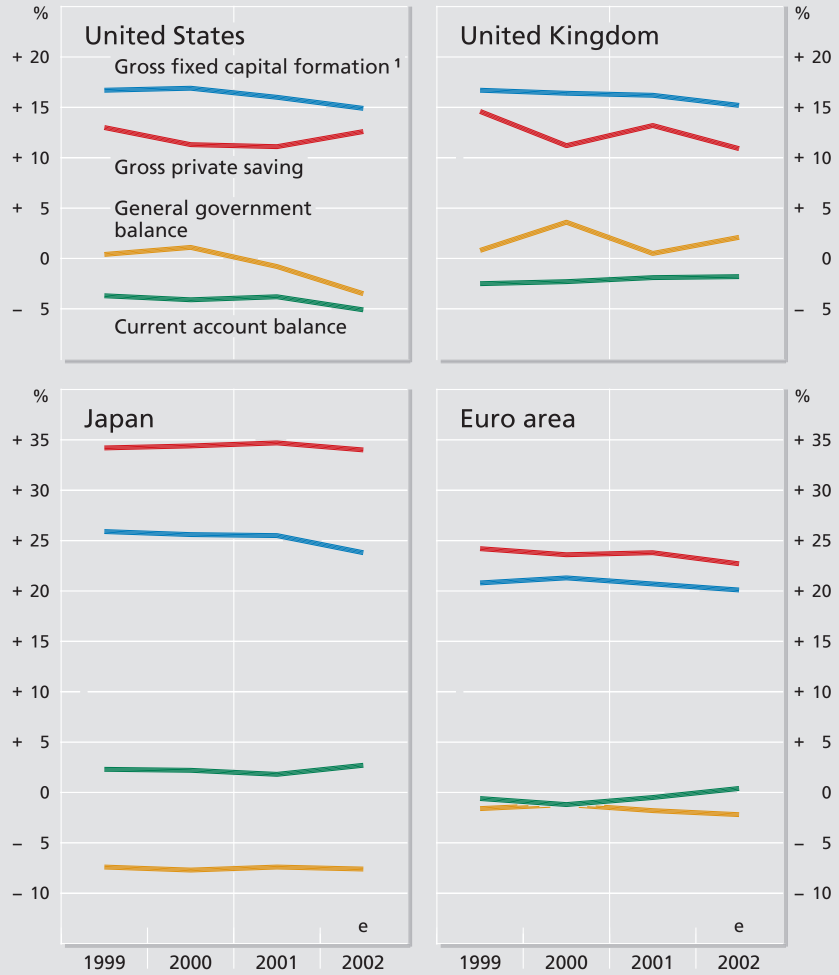
Growing external economic imbalances

The divergent patterns of economic development in the individual countries and regions last year were associated with growing external economic imbalances. For example, the US current account showed a new record deficit of almost 5% of GDP in 2002, whereas Japan and most of the Asian emerging-market economies generated large surpluses. The current account of the euro area also showed a slight surplus last year – for the first time since the start of monetary union. Of the leading industrial nations, only the United Kingdom and the United States recorded a negative current account balance. On the one hand, these divergences reflect the productivity-related higher growth rates in the deficit countries and their comparatively high attractiveness for international investors. On the other hand, the "investment gap" in the deficit countries, ie the difference between domestic demand for investment and national savings, is often partly attributable to households' low propensity to save and – in the case of the United States, for example – to the easing of fiscal policy. The further increase in the US current account deficit and the growing propensity to consume are therefore fostering increased expectations of a necessary correction which –

Gross fixed capital formation, gross saving and current account balance

Chart 2

As a percentage of GDP



Sources: IMF, ECB and Bundesbank calculations. — **1** USA: excluding public investment.

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in the absence of internal adjustments – might be accompanied by corresponding exchange rate changes and a collapse of US import demand. An abrupt change in the global balance of payments structure could lead to disruptions in the international financial markets and impair overall economic development – especially outside the United States. However, the exceptional position which the United States occupies within the global economy and the fact that the bulk of US external liabilities are denominated in US dollars rather than foreign currency point to the likelihood of a gradual adjustment process which, in terms of the external economy, has already begun with the weakening of the US dollar. From this perspective, the change in the currency parities is to be welcomed.

2 Economic performance in European monetary union

(a) Macroeconomic trends

Further slowdown in growth

For the economy of the euro area, 2002 was again a difficult year. After the cyclical trough had been reached in the fourth quarter of 2001 with a decline in seasonally adjusted real GDP, there was initially a marked upturn in economic activity after the turn of the year. In the second and third quarters, however, the recovery lost momentum and weakened perceptibly in autumn 2002. Aggregate output in the euro area grew at an average annual rate of only ¾%. This was the worst result since 1993, when total output fell by ¾%. As in 2001, the increase in real GDP failed to keep pace with the growth in production potential, which the ECB estimates to be in the range of 2% to 2½%. Capacity utilisation is now likely to be well below its standard level. In 2002, the growth advantage which the euro area had gained temporarily in 2001 within the group of industrial countries was surrendered again to the United States. Japan's economy performed even more poorly, with an increase in overall output of no more than ¼%.

Subdued consumer demand

The main reason for the lacklustre economic growth in the euro area was weak domestic demand. At constant prices, private consumption spending went up by around only ½%, compared with a 1¾% increase in 2001. Households were especially restrained in their purchasing in the first quarter. This was principally due to the sharp price increases in early 2002, which, in turn, had been caused mainly by a weather-induced surge in the prices of seasonal food products and by higher taxes on consumption. Moreover, the rise in perceived inflation following the introduction of euro banknotes and coins on 1 January 2002 reduced consumers' propensity to buy. In the ensuing period, private consumption did pick up again, but the pace of the increase was still only moderate. The fairly sharp increase in real incomes, which accompanied the slackening upward pressure on prices, was counterbalanced by a number of setbacks for consumer confidence, particularly from the middle of the year onwards. These included a renewed decline in stock market prices, the increasing risk of war in the Middle East and a worsening of the situation on the labour market.

Further decline in fixed investment

The accumulation and persistence of risks last year made investors increasingly cautious and put a further damper on demand for new machinery, equipment and buildings. Furthermore, viewed over the year as a whole, capacity utilisation was stagnating at a low level, which meant that there was hardly any need for

Economic performance in the euro area — Table 2

Country	Real gross domestic product 2001	Real gross domestic product 2002 pe	Consumer prices 1 2001	Consumer prices 1 2002 pe	Unemployment rate 2 2001	Unemployment rate 2 2002 pe	General government fiscal balance 2001	General government fiscal balance 2002 pe
	Change from previous year in %				in %		as % of GDP	
Euro area	+ 1.4	+ 0.8	+ 2.5	+ 2.2	8.0	8.3	– 1.6	– 2.2
Germany	+ 0.6	+ 0.2	+ 2.1	+ 1.4	7.7	8.2	– 2.8	– 3.6
France	+ 1.8	+ 1.2	+ 1.8	+ 1.9	8.5	8.7	– 1.5	– 3.1
Italy	+ 1.8	+ 0.4	+ 2.3	+ 2.6	9.4	3 9.0	– 2.6	– 2.3
Spain	+ 2.7	+ 2.0	+ 2.8	+ 3.5	10.6	11.4	– 0.1	– 0.1
Netherlands	+ 1.3	+ 0.3	+ 5.2	+ 4.0	2.4	2.7	+ 0.1	– 1.1
Belgium	+ 0.8	+ 0.7	+ 2.4	+ 1.6	6.7	7.3	+ 0.4	0.0
Austria	+ 0.7	...	+ 2.3	+ 1.8	3.6	4.1	+ 0.3	– 0.6
Finland	+ 0.6	+ 1.6	+ 2.6	+ 2.0	9.1	9.1	+ 5.1	+ 4.7
Portugal	+ 1.6	+ 0.5	+ 4.4	+ 3.7	4.1	5.0	– 4.2	– 2.7
Greece	+ 4.1	+ 4.0	+ 3.7	+ 3.9	10.4	...	– 1.4	– 1.2
Ireland	+ 5.7	...	+ 4.0	+ 4.7	3.9	4.4	+ 1.1	– 0.1
Luxembourg	+ 1.0	...	+ 2.4	+ 2.0	2.0	2.4	+ 6.4	+ 2.6

1 Harmonised consumer price index (HCPI). — **2** Standardised unemployment rate according to calculations by Eurostat (ILO definition). — **3** Partly estimated.

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additional production facilities in the manufacturing sector. Annual average capacity utilisation was roughly ½ percentage point below its multi-year average. In addition, corporate financing conditions were less favourable than was indicated by the low real interest rates on the money market and for government bonds. For one thing, the slump in stock market prices since spring 2000 made it increasingly difficult for enterprises to raise additional equity by issuing new shares. Second, the rates of interest on loan capital remained comparatively high for most of the year owing to the intermittently sharp increases in the interest rate premium on corporate bonds vis-à-vis government bonds and because the banks attempted to adjust their lending business margins to the increased risk of insolvency and the reduced credit standing of some of their customers. Following the ECB's reduction of key interest rates in early December and early March 2003, the financial costs of the corporate sector appear to have decreased, however. Gross fixed capital formation fell by an annual average of 2½% in 2002; the decline since 2000 amounts to 3%. The large-scale liquidation of stocks initiated in 2001 continued last year but this no longer retarded GDP growth as strongly as before.

In the first quarter of 2002, real euro-area imports (which, as defined in the national accounts, includes intra-euro-area imports) were dragged down sharply

Further increase in real net exports

in seasonally adjusted terms by weak domestic economic activity. Although the depressed level of real euro-area imports improved as the year progressed, the average figure for the year was -¼%. Exports, which had stagnated in early 2002 virtually at the low reached earlier, picked up in the second and third quarters. Their pace of growth was stagnating again in autumn, however. The main reason for this is likely to have been the slowdown in the global recovery, although the appreciation of the euro against the US dollar did not hamper exports significantly up to the end of 2002. At constant prices, exports (as defined in the national accounts) rose by an annual average of no more than 1¼% in 2002, compared with 12½% in 2000 and 2¾% in 2001. Because the growth differential between exports and imports remained largely unchanged, there was a further increase in real net exports; their share of real GDP last year again showed a rise of ½ percentage point (to 3%).

Smaller differentials in growth

The degree of dispersion of growth rates among the euro-area countries showed a further slight decline in 2002. Nevertheless, a number of member states were converging towards the slow pace of German expansion – and not *vice versa*, as would actually have been desirable. The standard deviation, weighted by the share of euro-area GDP, declined to just under 1 percentage point and thus to a new all-time low. The corresponding figure for 1999 had been almost 1½ percentage points.[1] The spread of expansion rates between Ireland, the country with the highest growth, and the "straggler", Germany, is also likely to have been narrower than in 2001.

Still no signs of stronger expansionary forces

The overall low level of economic growth in the fourth quarter of 2002 continued after the turn of 2002-03. The industrial business climate became gloomier again after showing something of an improvement in the final quarter of 2002. Added to this was a further decline in consumer confidence; the balance of negative responses in February 2003 was as high as it had been in summer 1996. Stock market prices, which had firmed up during the autumn months of 2002, came under renewed pressure for a time after the turn of the year owing to increased uncertainty on the financial markets concerning the potential economic implications of a war. The upturn is unlikely to continue until the prevailing lack of confidence has given way to a greater degree of optimism. A reduction in geopolitical tensions could play a major part in achieving that. The euro area would also benefit from a global strengthening of expansionary forces. The fact that the euro has now appreciated sharply on the foreign exchange markets

1 Estimates have been used for those countries which have not yet published annual figures for 2002.

is another factor that has to be taken into consideration, however. Not least on account of the low output level at the end of 2002 and the weak economic start to 2003, it is likely that annual average GDP growth will again lag behind the increase in production potential.

Rising unemployment

The slowdown in economic activity in the euro area was also reflected on the labour market last year. Although the available data show that the annual average level of employment was, in fact, somewhat higher in 2002 than it had been in 2001, no additional labour was recruited later on in the year. Given the abundant supply of labour, this led to unemployment rising by half a million. The standardised unemployment rate went up from 8.0% to 8.3%. Almost all member countries were affected by this deterioration in the labour market situation. One exception was Italy, where the rate dropped by ½ percentage point despite only moderate economic growth. This was due, in part, to special factors, however, such as extensive tax incentives for enterprises to take on workers.

Consumer prices

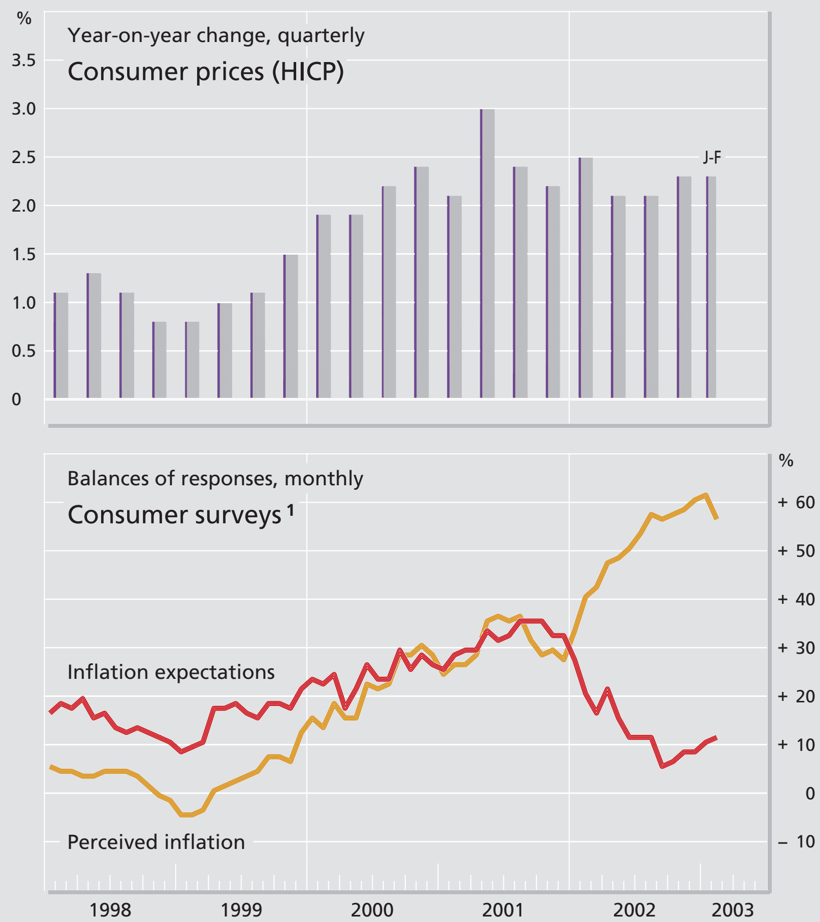
At an annual average of 2.2%, the rise in consumer price in 2002 was somewhat less than in 2001, when the measured rate of HICP inflation had been 2.5%. This renewed overstepping of the medium-term stability benchmark in 2002 was mainly due to higher prices for services (+3.1%). However, there were also price rises in the case of luxury food, drink and tobacco due, in most part, to higher taxes. Excluding the particularly volatile components "unprocessed food" and "energy", the rate of price increase in 2002, at 2.5%, was therefore significantly faster than in 2001 (2.0%).

Perceived prices and price effects of the euro

The fact that consumers had a particularly intense perception of prices placed an additional strain on the price climate. According to surveys undertaken by the European Commission, perceived inflation continued to rise throughout 2002, even though the measured rate of inflation showed a marked decline at times. In part, this may have been due to the fact that, in a number of countries, an accumulation of price adjustments at the start of the year in some services subsectors coincided with the introduction of euro banknotes and coins and the changeover to pricing in euro. The new currency also changed price relationships as they appeared to consumers, which probably led to a temporary reduction in market transparency. Nevertheless, apart from consumers cutting down on their purchases for a time, the increase in perceived inflation had hardly any perceptible impact on the development of the economy as a whole. At all events, the percentage of those surveyed expecting a higher rate of inflation in the future declined as the year went on.

Inflation rate, perceived inflation and inflation expectations in the euro area

Chart 3



1 The percentage gives an approximate indication of the size of the majority among the surveyees who assess that the inflation rate has increased or will increase. Inflation expectations: assessment of price developments in the next 12 months. Perceived inflation: assessment of price developments in the past 12 months. Source: European Commission.

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Spread of inflation rates

As in earlier years, there were major differences among the national inflation rates. In Germany, Belgium, Austria and France, the rate of inflation was below 2%. The rate in Finland and Luxembourg was exactly 2%. In Italy it was at around 2½%. In the other countries, the rates of inflation were more than 3%, reaching well over 4½% in case of Ireland. This meant that the spread between the highest and the lowest national rate of inflation was largely unchanged in comparison with 2001. Other measurements, which take account of the differentials between individual countries' inflation rates and the average inflation rate as well as the economies' differing weighting, indicate a clear widening of the spread, however. This probably also has to do with the fact that the fairly wide range in terms of real economic growth in earlier years was still exerting an impact on prices.

Price developments in early 2003 and outlook

Consumer prices showed a fairly steep rise during January and February 2003, mainly on account of higher oil prices and various tax increases. Despite favourable base effects, which, by themselves, would have resulted in the rate declining, the year-on-year figure was therefore – as in the fourth quarter of 2002 – 2.3%. Assuming that crude oil prices will fall again, however, the annual average rate of inflation in the euro area can be expected to be down on 2002. The spread of inflation rates could also narrow as real economic convergence increases.

(b) External economic developments of the euro area

Exports…

Uncertainty about the way the world economy was going and subdued export growth dampened euro-area enterprises' export business last year. In 2002, euro-area exports to third countries did rise by 2½% in value, however. Owing to the slight fall in export prices (data on price developments in trade with third countries – measured by unit values – are available at present up to and including November 2002), growth is likely to have been even slightly larger in real terms. The development in exports to countries outside the euro area was noticeably more favourable than that in intra-trading, ie cross-border sales within the euro area, which declined by around 1½%. The appreciation of the euro thus had no perceptible impact on foreign trade in 2002. Although the price competitiveness of the euro area fell by around 7½% during the course of last year, experience shows that exports do not react immediately to exchange rate movements. Moreover, price competitiveness at the end of last year was still 5% up on the level of early 1999. Suppliers in the euro area have evidently also accepted a reduction in their profit margins, however, so as to secure their market position in an environment of weak demand and an ongoing appreciation of the euro. That is suggested, at least, by declining export prices, given a simultaneous rise in unit labour costs.

…and imports reflect cyclical uncertainty

In contrast to exports, euro-area imports from third countries again declined in value last year. At 3½%, the fall was even larger than in 2001. To a considerable extent, this reflected the fact that, for much of 2002, energy imports were cheaper in year-on-year terms as well as the price-dampening impact of the euro's appreciation. Even after eliminating price effects, there was a decline in imports from third countries, however. This was ultimately a reflection of the sluggish pace of economic activity in the euro area. Imports of capital goods were particularly affected and – given declining investment activity in the euro area – showed a marked fall.

Significant surplus on current account

As a result of the contrasting developments in exports and imports, the 2002 trade surplus – also boosted by the improvement in the terms of trade – again showed a very large increase on the year (€132½ billion compared with €76 billion in 2001). At the same time, the deficit in invisible current account transactions fell from €89½ billion (2001) to €70½ billion (2002). This was due mainly to an increase in the services surplus, which went up from €1 billion to €13½ billion. Furthermore, net expenditure on current transfers – which includes net payments of euro-area countries to the EU budget – showed a noticeable decrease (to €45 billion, compared with €51 billion in 2001) and the deficit in the field of net cross-border factor income fell slightly to €39 billion. Overall, the more positive development in these sub-components resulted in a turnaround on current account producing a surplus of €62 billion in 2002, compared with a minus figure of €14 billion in 2001.

Recovery of the euro exchange rate against the US dollar …

As mentioned above, the euro appreciated considerably against other major currencies in 2002, with the appreciation against the US dollar (19% during the year) being especially marked. The smooth euro cash changeover at the beginning of the year led to a sharp rise in the exchange rate. Nevertheless, the single currency was, if anything, tending to come under downward pressure against the US dollar, especially in January 2002, owing to the fact that expectations of US economic growth were undergoing a marked upward adjustment.

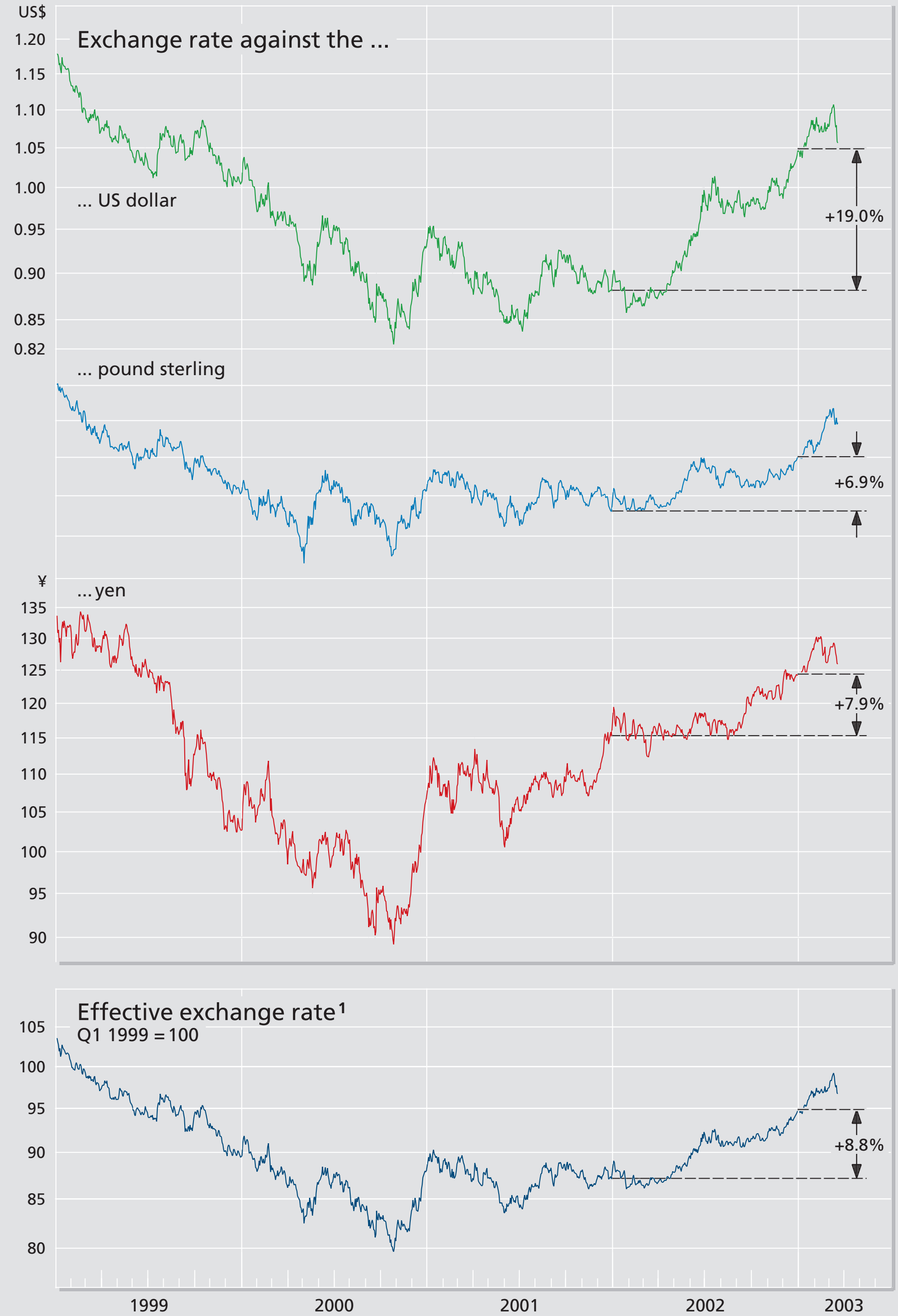
… from spring onwards

Then, in spring, the euro gained sharply against the US dollar and, in mid-July, surpassed parity for the first time in more than two years. Accounting scandals had raised doubts about accounting practices in the United States and the performance of the US corporate sector. As a result, confidence in the US economy weakened. Investor uncertainty and interest rate disadvantages of long-term US securities over comparable euro-area securities resulted in shifts in the financing of the large US current account deficit, which was still growing in 2002. The deficit thus increasingly became a focus of the market players’ attention again. Given the worsening prospects for growth on both sides of the Atlantic, the euro remained quite stable within a narrow range below parity in autumn. As tensions in the Middle East increased towards the end of the year, however, the euro experienced a further upward surge, attaining a rate of US$1.11 for a time.

Exchange rate of the euro *

Chart 4

Daily data, log scale



* The stated rates of change relate to the four quarters of 2002. — 1 According to ECB calculations against the currencies of 13 or (from 2001 onwards) 12 countries.

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Gains against pound sterling and yen

Movements in the rate of the euro to the pound sterling were similar to those of the euro's rate against the US dollar; the gains the euro made against the pound sterling, at 7% on an annual average, were much smaller than its appreciation against the US dollar, however. During 2002, the euro appreciated 8% against the Japanese yen. Perceptible upward pressure against the Japanese yen did not set in until late summer, however, when the prospects of an economic recovery in Japan – which had been based mainly on successes in exports – again took a turn for the worse. The yen was also subject to persistent strains stemming from structural problems in the Japanese economy and from repeated calls for the Bank of Japan to take active steps to weaken the currency.

Euro appreciation makes stability policy tasks easier

Movements in the weighted average of the euro's exchange rates against the euro area's 12 most important trading partners were predominantly influenced by developments in the euro's rate against the US dollar. However, since the euro recorded smaller gains against most of the other partner currencies or even showed a depreciation, as was the case against Scandinavian currencies, its external value increased during 2002 only at a slower pace (9%). The appreciation of the euro undoubtedly makes it easier for the Eurosystem to fulfil its stability policy tasks, since it dampens external factors, such as the recent sharp increase in oil prices, which tend to push up prices.

Net capital flows into the euro area

The euro's gains on the foreign exchange market last year are also reflected in the financial account of the euro area: in portfolio and direct investment taken together, net capital inflows (€29½ billion) were recorded for the first time since the start of monetary union. This development was due mainly to high levels of net capital imports from spring 2002 onwards coinciding with the appreciation of the euro. This contrasted with sizeable outflows of funds from the euro area that were still being recorded in the first quarter. The reversal in the segments cited has to be seen against the backdrop of multinational companies' waning worldwide activity in direct investment, the change in the situation pertaining to interest rates in favour of the euro, and the weak equity markets last year.

II Monetary policy and financial markets

1 The monetary policy of the Eurosystem

(a) Steady interest rate policy course followed by monetary policy easing at the end of the year

Forward-looking monetary policy

As in the past, the Governing Council of the ECB geared its monetary policy decisions last year to the medium-term price outlook for the euro area. A particular challenge in this respect was the introduction of euro banknotes and coins at the start of 2002, for which the Governing Council left official interest rates unchanged. For a time, considerable concerns were expressed with regard to the possible inflationary effects of prices being converted into euro, especially as shortage-induced higher prices for food, increases in administered prices and marked price rises in the services sector caused uncertainty among consumers. Given the associated risks for future price developments, the Governing Council adopted a "wait and see" stance in terms of monetary policy almost throughout the year. It was only at the end of the year, when it became apparent that inflationary pressure would recede significantly, that the Governing Council initially lowered official interest rates by ½ percentage point in early December, which was followed by a further ¼ percentage point cut at the beginning of March 2003. The interest rates on the marginal lending facility and the deposit facility are now 3.50% and 1.50%, respectively, and the main refinancing operations are being conducted in the form of variable rate tenders with a minimum bid rate of 2.50%.

Assessment of the price outlook difficult, ...

During the period under review, it was not always easy to interpret the indicators of the two pillars of the Eurosystem's monetary policy strategy. First of all, the inflation rate had shown a marked acceleration precisely at the start of the year due, in part, to increases in administered prices, higher indirect taxes and, above all, price rises for seasonal food products. Added to this were sharp price increases in some sectors in connection with the euro cash changeover. Moreover, the assessment for the economy was quite optimistic early in the year, which – taken in isolation – dampened the expectation of a rapid decline in the inflation rate to below 2%. On the other hand, the medium-term outlook from the monetary side had appeared, if anything, to be more balanced than before. Monetary expansion in the first quarter of 2002 had been fairly moderate and it seemed that the expected tendency towards a more normal pattern of liquidity holding would prevail. Owing to the sharp monetary expansion in the second half of 2001, however, year-on-year M3 growth was still significantly above the reference value of 4½%.

... especially from spring onwards

Disappointed hopes of a rapid cyclical upturn and the fraudulent accounting practices of some major US companies soon caused so much fresh uncertainty that investors pulled out of the stock markets, preferring to park their inflowing funds in liquid bank deposits. This led to a renewed distinct acceleration in monetary growth. Together with the high wage increases agreed during this period, this tended to heighten the risks on the price side. As a result, the Governing Council maintained its "wait and see" approach throughout the summer months despite increasing doubts concerning the early-year optimism about growth.

Interest rate cuts in December 2002 and March 2003

Although sharp monetary growth continued as a result of the market players' marked preference for liquidity, inflation risks receded into the background following the renewed deterioration in the prospects for growth. The Governing Council took account of the changed economic outlook in lowering official interest rates by a total of 75 basis points on 5 December 2002 and 6 March 2003. It thereby simultaneously attempted to strengthen confidence in the economic efficiency of the euro area.

Interest rate moves expected

The Eurosystem's interest rate cuts were largely expected by the market. While the yield curve had been becoming somewhat steeper well into the spring – more or less in anticipation of the more favourable assessment of the economy – it flattened out again in summer as the economic outlook deteriorated and became inverse at the short end from September 2002 onwards. Forward interest rates, which had been significantly higher than corresponding spot rates in some cases early in the year, likewise declined perceptibly in the course of 2002. They have been up to ½ percentage point below the relevant spot rates since as long ago as the beginning of November. Forward interest rates continued to decline even after the December 2002 rate cut. While the market players had initially been expecting a cut of 25 basis points in mid-2003 and key rates to be left unchanged thereafter, the expectation of an imminent interest rate move prevailed from the end of February onwards. In most cases, in fact, the expectation had been that the interest rate cut would be somewhat larger than the one which then occurred.

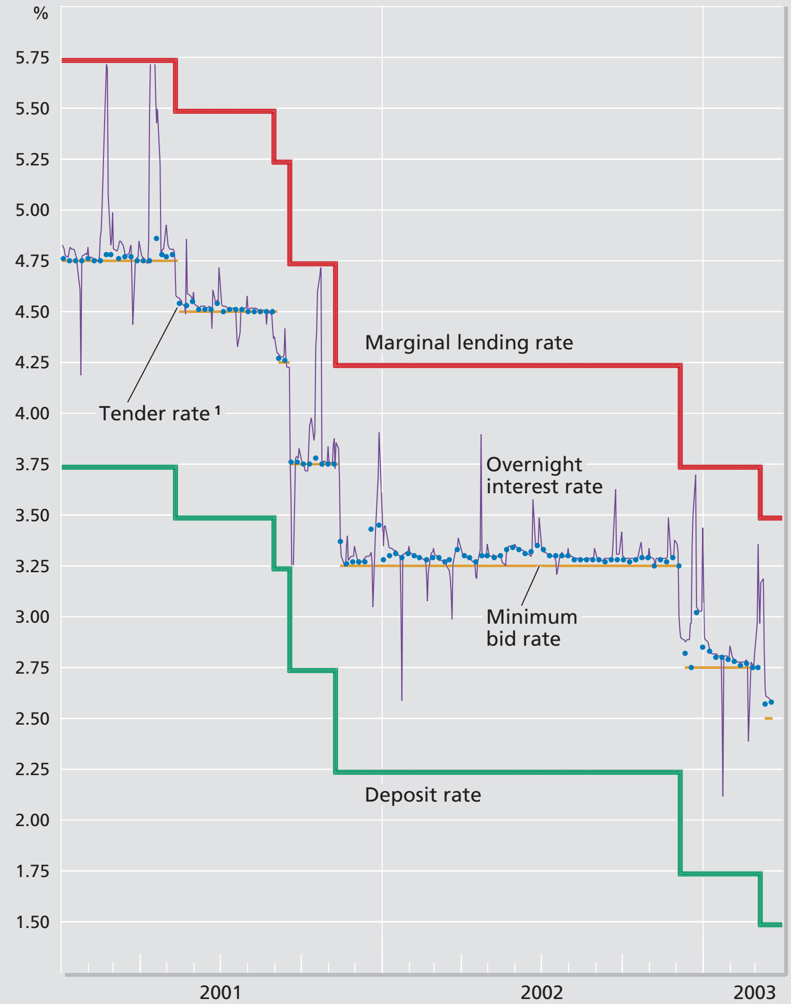
Liquidity management successful on the whole

Major fluctuations in the overnight interest rate (Eonia) occurred only in a few exceptional cases last year. While the euro banknotes and coins were being put into circulation at the start of 2002, the Eurosystem kept conditions on the

Official interest rates and overnight interest rate

Chart 5

Daily data



1 Interest rate for main refinancing operations; marginal rate (variable rate tenders).

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money market successfully under control. During the rest of the year, the overnight interest rate remained fairly close to the minimum bid rate on the main refinancing operations. Generally, major deviations occurred only at the end of the reserve maintenance periods, as in April 2002, for example. There was an underbidding in the main refinancing operation scheduled for the middle of December, however. The ECB launched an immediate liquidity-providing fine-tuning operation, but without entirely preventing the interest rate fluctuation. The volatility of the overnight money rate remained quite high up to the end of the year. As a result of the expectation of an interest rate cut, there was a further marked underbidding in the main refinancing operation at the beginning

Record of domestic and external monetary policy measures

1 January 2002
Euro-denominated banknotes and coins are introduced as legal tender in the twelve countries participating in European Monetary Union. By the end of 2001, around 15 billion euro banknotes with a nominal value of €630 billion had been printed and more than 51 billion euro coins worth €16 billion minted. Since credit institutions were provided with sufficient advance stocks of euro banknotes and coins (frontloading), the currency changeover was accomplished smoothly and rapidly.

3 January 2002
The Governing Council of the ECB decides to allot an amount of €20 billion in each of the longer-term refinancing operations to be conducted in the first half of 2002.

29 February 2002
The euro becomes the sole legal tender in all the euro-area countries. The Bundesbank announces that it will exchange D-Mark banknotes and coins for euros in unlimited amounts and for an indefinite period of time.

11 April 2002
The Central Bank Council of the Deutsche Bundesbank holds its 1,075th and last meeting after 54 years.

The Central Bank Council approves the Bank's annual accounts for the financial year 2001. The profit for the year, amounting to €11.2 billion, is transferred in full to the Federal Government.

30 April 2002
Legislation reforming the Bundesbank (Seventh Act amending the Bundesbank Act) enters into force. This brings the Bundesbank's organisational structure into line with the changed circumstances prevailing in the European System of Central Banks. Under the amended Bundesbank Act an eight-person Executive Board *(Vorstand)* assumes sole responsibility for running the Bank. The Land Central Banks are replaced by Regional Offices *(Hauptverwaltungen)*.

1 May 2002
The new Executive Board of the Bundesbank, to which – besides Bundesbank President Ernst Welteke – Dr Stark (Vice President), Dr Fabritius, Mr Kotz, Mr Meister, Dr Reckers, Professor Remsperger and Professor Zeitler were appointed as members, holds its inaugural meeting.

The newly established Federal Financial Supervisory Authority *(Bundesanstalt für Finanzdienstleistungsaufsicht)* takes up its work. The Bundesbank continues to play an important role in ongoing banking supervision and in shaping the regulatory framework.

8 May 2002
The Executive Board of the Bundesbank decides to convert all former sub-branches into operating units of the corresponding branches as of 1 April 2003, and to close them altogether within a period of five years and by 30 April 2007 at the latest. The envisaged shedding of jobs is to be achieved in a socially humane manner.

10 July 2002
The Governing Council of the ECB decides to reduce the amount to be allotted in each of the longer-term refinancing operations to be conducted in the second half of 2002 from €20 billion to €15 billion.

24 October 2002
The Governing Council of the ECB adopts a concept for modernising the large-value payment system TARGET to meet customers' needs even better and to guarantee cost effectiveness in future, too.

In a statement, the Governing Council of the ECB stresses the importance of budgetary discipline, as enshrined in the EC Treaty and the Stability and Growth Pact, for a monetary policy geared to maintaining price stability.

5 December 2002
The Governing Council of the ECB lowers the minimum bid rate for the main refinancing operations to be settled from 11 December 2002 onwards by ½ percentage point to 2.75%. The interest rates on the marginal lending facility and the deposit facility are likewise lowered by ½ percentage point to 3.75% and 1.75%, respectively, both with effect from 6 December 2002.

The Governing Council of the ECB reviews and reconfirms the reference value for the annual growth rate of the broad monetary aggregate M3, leaving it unchanged at 4½%.

19 December 2002
The Governing Council of the ECB reaches unanimous agreement on the contents of its proposal for the future adjustment of its voting modalities. In the event of an enlargement of the euro area, the number of central bank governors entitled to vote should not exceed 15. To ensure this, the central bank governors will exercise their voting rights on a rotating basis. However, each of the six members of the ECB's Executive Board will continue to have a permanent voting right.

23 January 2003
The Governing Council of the ECB decides that, from the first quarter of 2004, the reserve maintenance period will start on the settlement day of the main refinancing operation following the Governing Council meeting at which the monthly discussion of monetary policy is scheduled. In addition, changes to the standing facility rates are to coincide as a rule with the start of the new reserve maintenance period. Furthermore, the maturity of the main refinancing operations is to be shortened from two weeks to one week.

The Governing Council of the ECB decides to retain the allotment amount of €15 billion in each of the longer-term refinancing operations to be conducted in the second half of 2003.

19 February 2003
The Executive Board of the Bundesbank draws up the Bank's annual accounts.

6 March 2003
The Governing Council of the ECB lowers the interest rates on the marginal lending facility and the deposit facility by ¼ percentage point to 3.50% and 1.50%, respectively, both with effect from 7 March 2003, and reduces the minimum bid rate for the main refinancing operations to be settled from 12 March 2003 onwards by likewise 25 basis points to 2.50%.

26 March 2003
The Executive Board of the Bundesbank determines that the profit to be distributed to the Federal Government amounts to €5.4 billion.

of March. Since this meant that the market lacked a considerable amount of funds, Eonia showed a sharp increase for a time, before approaching the minimum bid rate. (For details of liquidity management, see page 34-35).

(b) Monetary growth under the impact of a marked preference for liquidity

Continuing sharp monetary growth

The rapid pace of M3 growth in the euro area in 2002 posed particular challenges for the Eurosystem's two-pillar strategy. In this connection, it was, above all, anything but easy to assess the risks to price stability emanating from M3 growth. The pronounced shift in sentiment on the international financial markets encouraged investors' preference for liquidity, and thus also monetary growth, in an unprecedented manner. In the second half of the year, there was the additional factor of uncertainty about future economic growth and the geopolitical situation, which led to liquidity holdings increasing at an even faster pace in summer. It was only in the last few months of 2002 that growth slowed down again, although monetary expansion remained at a high level overall. On an average of the period from October to December 2002, the year-on-year rate of M3 growth was 6.9%.

Sharp expansion of currency in circulation

Of the components of the monetary aggregate M3, currency in circulation showed a particularly sharp increase following an extremely sharp decline in the run-up to the euro cash changeover. The rise in 2002 offset over 87% of the decline in 2001. Both resident and non-resident holders of currency have been building up their stocks again, with the hoarding of currency as a store of value evidently playing a significant role. There was, for example, a particularly sharp increase in the number of high-denomination euro banknotes issued, while the number of banknotes of a smaller denomination (€5 and €10 notes), which are used mainly for transaction purposes, actually fell between January and December 2002. Given the steady rise in currency in circulation over the past year and the fact that interest rates are at quite a low level at present, currency could go on catching up with its former level.

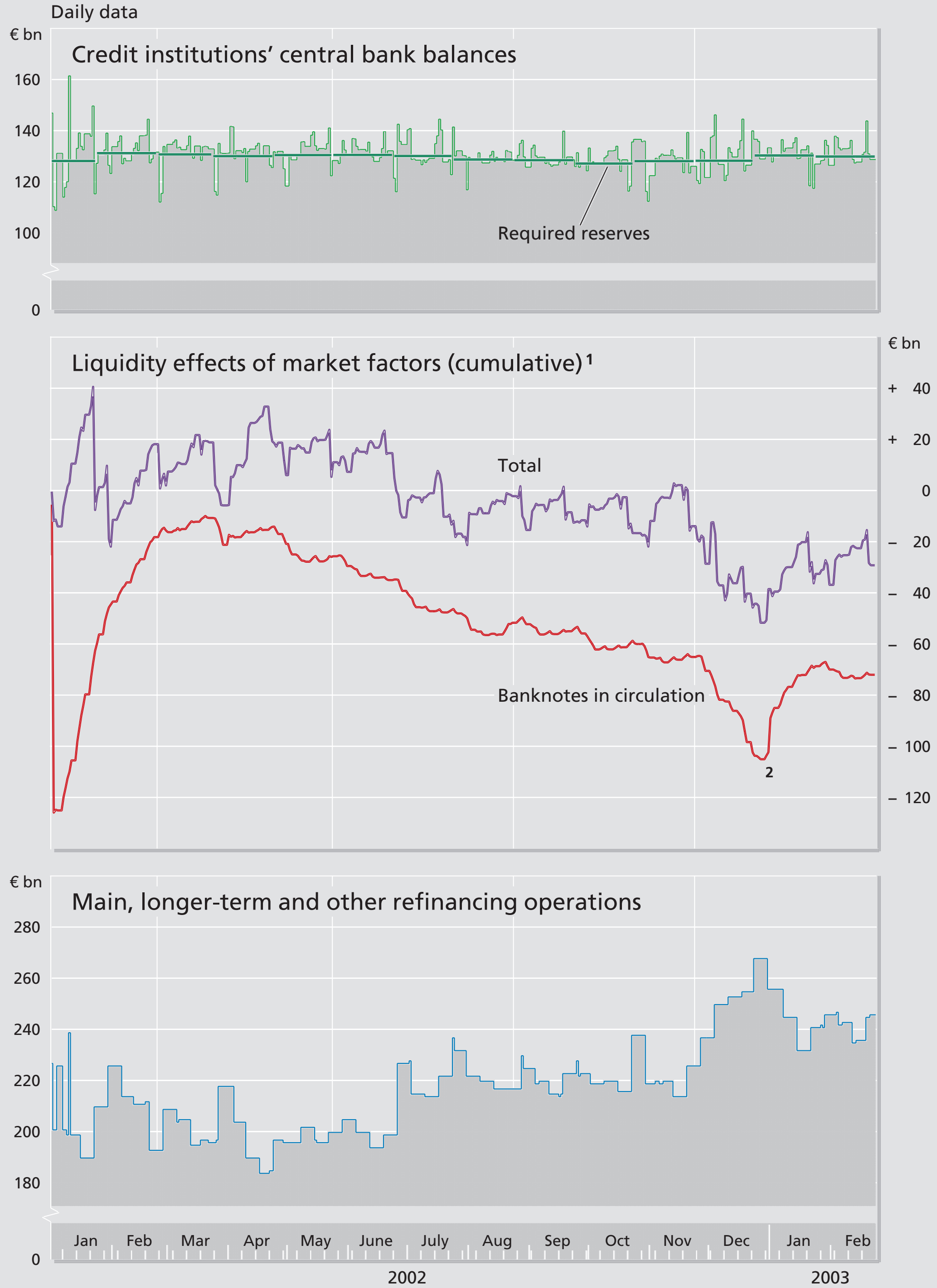
Sight deposits, ...

Although the expansion of domestic non-banks' currency holding is likely to have been mainly at the expense of their overnight deposits, sight deposits did show a notable overall increase in the past year. At the end of December 2002, they were just under 6% higher than 12 months previously, having benefited greatly in 2001, especially towards the end of year, from a reduction in domestic currency hoarding. It was precisely in the second half of the year that overnight

Liquidity management in the Eurosystem

Chart 6

Daily data



1 Banknotes in circulation, general government deposits with the Eurosystem, net foreign reserve assets of the Eurosystem and other factors; provision (+) or absorption (–) of central bank balances. — 2 Nationally denominated banknotes in circulation reclassified under other liability items in the NCB financial statements as of 1 January 2003 amounting to €13.3 billion.

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Money market management and liquidity needs

In the past year the Eurosystem's ongoing money market management operations continued to be aimed at enabling credit institutions to fulfil their minimum reserve requirements on a comparatively smooth basis and thus at minimising the volatility of the overnight money market rate (Eonia). This entailed the use of open market policy instruments to achieve a timely neutralisation of the liquidity effects of autonomous factors on credit institutions' central bank balances. These were dominated by the exceptional development in the volume of banknotes in circulation resulting from the introduction of euro banknotes and coins at the beginning of 2002 and the high volatility of general government deposits with the Eurosystem.

The publication of the Eurosystem's estimates of liquidity needs concurrently with the announcement of the main tenders – and additionally on an ad-hoc basis whenever major revisions were made – had a generally stabilising effect on the overnight money market. A calming effect on the money market was exerted, too, by the fact that since November 2001 the Governing Council of the ECB has normally taken decisions on its monetary policy stance, and hence on central bank interest rates, exclusively at its first meeting in each month. This has helped to considerably reduce the frequency of possible disruptions in the overnight money market caused by interest rate speculation.

Overall, the volatility of the EONIA remained within narrow bounds in the period under review and was even smaller than the already very low level of volatility seen in 2001. Sizeable fluctuations in the overnight rate occurred only towards the end of each reserve maintenance period, calendar month and, especially, quarter. The overnight money rates quoted at the various European financial centres had a very narrow spread, which implies that the process of cross-border liquidity adjustment between credit institutions in the European money market worked very efficiently. The cross-country use of debt instruments for collateralising central bank borrowing likewise increased further.

In the period under review, monetary policy was executed in instrumental terms almost exclusively via the main refinancing operations conducted at weekly intervals. As in previous years, roughly half of the annual average volume totalling €132 billion was accounted for by the Bundesbank's counterparties. The share of main tenders in the Eurosystem's total refinancing credit decreased slightly to just under 71%. The marginal and weighted rates of allotment were in most cases close to the minimum bid rate, which thus continued to fulfil its function of signalling the monetary policy stance and served as an anchor for interest rates in the money market. The average number of bidders in the main tenders declined again in 2002, to around 300 participants per tender. This may primarily be a reflection of the ongoing processes of concentration in the financial sector of the euro area. At an annual average of €55 billion, the longer-term refinancing operations – which were without exception offered monthly in the form of variable-rate tenders without specifying a minimum bid rate – accounted for almost 30% of the total refinancing volume. From July 2002, the amounts purchased per basic tender were reduced by €5 billion to €15 billion because credit institutions' estimated liquidity needs were revised downwards at the time. At the start of 2003 the Governing Council of the ECB reconfirmed this figure as the standard amount until further notice. The number of bidders participating in the basic tenders likewise declined in 2002, averaging just under 200. Germany's share in the total basic tender volume increased to almost 70%.

The Eurosystem resorted very little to fine-tuning operations in the year under review. Given the generally adequate provision of funds by way of regular open market operations, the buffer function performed by the minimum reserve system and banks' efficient cross-border liquidity management, the Eurosystem rarely needed to conduct very short-term money market operations in order to avoid major fluctuations in the overnight money market. Owing to the unprecedented impact of the euro currency changeover on banks' liquidity, it was virtually impossible at the beginning of 2002 to make a reliable short-term forecast of credit institutions' borrowing requirements. When unexpected shortages of liquidity appeared likely against this background, the Eurosystem held liquidity-providing three-day and one-day variable-rate quick tenders on 4 and 10 January 2002, respectively. Another (six-day) quick tender was conducted on 18 December 2002 in response to the low bidding volume in the main tender allotted on the day before. The underbidding was not due to interest rate speculation but instead seemed to be mostly related to the fact that the maturity of that tender, and hence the settlement date of a new tender, fell on 31 December 2002. As the year-end closing date, the credit institutions did not want to burden that day with large-scale liquidity and collateral management operations.

In 2002 credit institutions made use of the standing facilities primarily at the end of the reserve maintenance periods; recourse to the marginal lending facility and the deposit facility, at an annual average of €0.3 billion and €0.2 billion, respectively, was below the corresponding level in 2001. Since July 2002 the liquidity situation at the end of a reserve maintenance period has been eased systematically by the advancement of the date of tax payments in Italy,

Factors determining bank liquidity *

€ billion; year-on-year changes

Item	24 Feb 2001 to 23 Feb 2002	24 Feb 2002 to 23 Feb 2003
I Provision (+) or absorption (-) of central bank balances by		
1 Change in volume of banknotes in circulation (increase: -) 1	+ 48.6	– 34.5
2 Change in general government deposits with the Eurosystem (increase: -)	+ 7.4	– 0.6
3 Change in net foreign reserves 2	+ 8.1	– 29.6
4 Other factors	+ 1.1	+ 37.2
Total	+ 65.2	– 27.5
II Monetary policy operations of the Eurosystem		
1 Open market operations		
(a) Main refinancing operations	– 61.6	+ 41.3
(b) Longer-term refinancing operations	+ 10.2	– 15.0
(c) Other operations	± 0.0	± 0.0
2 Standing facilities		
(a) Marginal lending facility	– 2.4	+ 0.1
(b) Deposit facility (increase: -)	+ 0.3	– 0.2
Total	– 53.5	+ 26.2
III Change in credit institutions' credit balances (I + II)	+ 11.9	– 1.5
IV Change in the minimum reserve requirement (increase: -)	– 11.6	+ 1.3

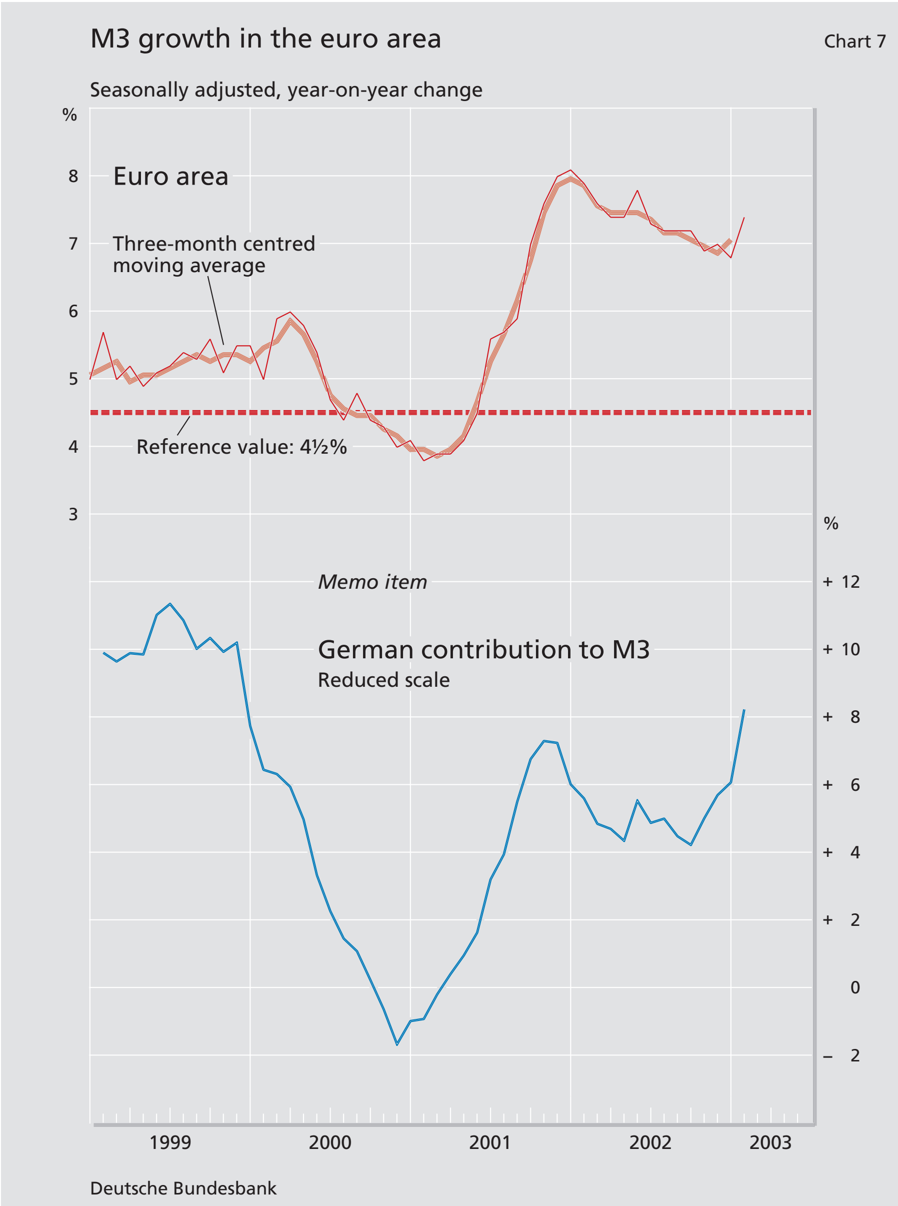
***** Calculated on the basis of daily averages in the last reserve maintenance period during the year under review. — **1** From January 2003, only euro banknotes. — **2** Including liquidity-neutral valuation adjustments at the end of the quarter.

which had previously fallen due on the 23rd of each month. The standing facilities were mostly utilised by counterparties of the Bundesbank.

In the twelve months up to the end of February 2003, the refinancing needs of euro-area banks were higher than in the preceding year. The fall in liquidity needs in 2001 – resulting from the considerable decline in the volume of (still exclusively) national banknotes in circulation in the run-up to the currency changeover – continued until the spring of 2002. Only subsequently did the rising circulation of euro banknotes issued from January 2002 onwards exceed the return flow of national banknotes still in circulation and bring about a trend increase in refinancing requirements. The euro banknotes were shown in the central bank balance sheets for the first time on 2 January 2002, which led temporarily to an enormous expansion of banknotes in circulation. However, the euro cash (€133 billion in notes and just over €12 billion in coins) frontloaded to the credit institutions prior to the currency changeover was not debited to their accounts at the central banks all at once but rather in several stages up to the end of January 2002. The euro banknotes which had not yet been charged to banks were backed until their final debiting by interest-free loans in the same amount which the Eurosystem granted to the banks. This delayed debiting meant that the banks' refinancing costs were temporarily lowered in January 2002.

The year-on-year increase in refinancing needs was also attributable to the decline in banks' net foreign assets (adjusted for liquidity-neutral valuation adjustments and for interest income on foreign currency assets). By contrast, the banks received extra resources from the lowering of the required minimum reserves and the distribution to the Federal Government in April 2002 of its share of the Bundesbank's large profit for the year 2001 (amounting to more than €11 billion). The liquidity withdrawals from the market of just over €27 billion and the reduction in the volume of the basic tender were offset by a substantial increase in the main refinancing operations to almost €169 billion.

The monetary policy framework continued to fulfil its functions effectively in the year under review. In particular, it allowed the Eurosystem to efficiently manage its operational target, the overnight money rate, and to precisely signal its monetary policy intentions. Even so, in January 2003, following a public consultation procedure, the Governing Council of the ECB decided to implement some changes for the year 2004 in order to enhance the efficiency of its monetary policy instruments (for more details on this subject see pages 138-139 of this *Annual Report*).



deposits increased sharply; seasonally adjusted and annualised, they grew by just over 8½% during that period.

... short-term savings deposits and money market funds also showed a sharp increase

Deposits redeemable at notice of up to three months were also rather popular last year and grew more or less as strongly as in 2001. Given the low interest rate level, there was evidently little incentive to shift them into more highly remunerated deposits. In contrast to this, deposits with an agreed maturity of up to two years were reduced slightly last year, after having been increased by a large amount in the two preceding years. Domestic investors' marked preference for liquidity was reflected yet again in a sharp increase in money market fund shares/units held by domestic non-banks. This paper is especially well suited to parking liquidity temporarily at an attractive rate of remuneration. In the course of 2002, they went up 17½%, although the increase in 2001 had been as much as 29½%. Repos, money market paper and short-term bank debt securities (issued with a maturity of up to two years) were not so much in demand in 2002, however.

Retention of the reference value of 4½%

At its meeting on 5 December 2002, the Governing Council of the ECB reviewed the reference value for growth of the monetary aggregate M3. On the grounds that no change had occurred in the underlying benchmark figures, the Governing Council decided to leave the existing reference value of 4½% unchanged. The quantitative definition of price stability is a year-on-year increase in HICP inflation for the euro area of below 2%. The ECB Governing Council viewed the available data as confirming the assumptions of medium-term real output growth of between 2% and 2½% and a trend decline in M3 income velocity of between ½% and 1% per annum. Once again, the Governing Council stressed that decisive structural reforms in the labour and goods markets could achieve a higher potential output growth.

(c) Determinants of monetary growth

Slowdown in credit to the private sector

In striking contrast to sharp monetary expansion, the pace of credit growth in the euro area continued to slow down in the year under review. Whereas lending to non-banks in the euro area had been expanding at a rate of just over 5% in 2001, it was only 4% up on the year at the end of 2002. It was solely credit to the private sector which continued to lose momentum, whereas lending to the public sector increased more strongly in the reporting year after having stagnated in 2001. One of the reasons for the slower growth in credit to the private sector in the euro area is the fact that MFIs in the euro area are acquiring perceptibly fewer securities issued by resident private borrowers. Above all, debt securities were taken into banks' portfolios on a noticeably smaller scale than in 2001. Another factor was that the growth in loans to domestic enterprises and individuals also declined. The main reason for this is likely to have been the slow growth of the euro-area economy, which has evidently had a marked subduing effect on non-financial corporations' demand for credit. At all events, non-financial corporations took up perceptibly fewer loans. By contrast, lending to households and housing construction expanded somewhat more strongly in 2002 than in 2001.

Monetary developments in the euro area

Table 3

Changes in the course of the year

Item	Euro area 2001	Euro area 2002
	in %	
I Growth of the monetary aggregates [1]		
M1 [2]	5.5	9.8
M2 [3]	6.4	6.5
M3 [4]	8.1	6.8
	€ bn	
II Money stock and its counterparts	393.2	366.8
Money stock M3 (=1+2–3–4–5)		
Currency in circulation and overnight deposits	106.8	214.0
Other shorter-term bank deposits	160.8	87.3
Marketable instruments	125.7	65.4
Balance sheet counterparts		
1 Credit to non-MFIs in the euro area	465.4	382.5
Credit to general government	0.9	34.4
Credit to private sector non-MFIs in the euro area	464.6	348.0
2 Net claims on non-euro-area residents	– 0.0	164.0
3 Deposits of central government	– 26.9	– 5.7
4 Longer-term financial liabilities to other non-MFIs in the euro area	177.1	165.8
5 Other counterparts of M3 [5]	– 78.1	19.6

1 Seasonally adjusted. — **2** Currency in circulation and overnight deposits held by euro-area residents with MFIs in the euro area. — **3** M1 plus other shorter-term bank deposits held by euro-area residents with MFIs in the euro area (deposits with an agreed maturity of up to two years and deposits at agreed notice of up to three months). — **4** M2 plus marketable instruments held by euro-area residents (repurchase agreements concluded by MFIs with non-MFIs in the euro area, money market fund shares/units and debt securities issued with a maturity of up to two years and money market paper issued by MFIs in the euro area). — **5** Calculated as a residual.

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Once again, exclusively securitised lending to the public sector

In the year under review, domestic MFIs stepped up their lending to euro-area general governments by €34½ billion. In doing so, however, they acquired exclusively securities issued by euro-area public sector borrowers on balance. Holdings of such paper increased by €45 billion. By contrast, the decline in unsecuritised lending to the public sector continued, falling by €10½ billion, or just over 1%, in 2002. At the same time, however, central governments reduced their deposits with domestic MFIs by €5½ billion.

Monetary capital formation still moderate

In contrast to the weak expansion of credit, the – on the whole – rather restrained monetary capital formation with domestic MFIs, when viewed as a balance sheet counterpart, tended to encourage the growth of money holdings in the reporting year. With an increase of €166 billion, or just under 4½%, the rise in 2002 was still somewhat smaller than it had been in 2001 (€177 billion, or just over 4½%). The slump in transfers to banks' capital and reserves was a major contributory factor in this, however. This item increased by no more than €25 billion in 2002, compared with €79½ billion in 2001. In particular, deposits redeemable at notice of over three months were also reduced by €10 billion. In this area, there are likely to have been interest-rate-induced shifts, whereas longer-term bank debt securities were sold on a fairly large scale outside the domestic MFI sector (+€112½ billion). Much as in the two preceding years, however, the paper issued by German banks played a minor role in this context, measured in terms of its importance in the aggregate longer-term bank debt securities issued by all MFIs in the euro area. In the reporting year, longer-term time deposits likewise showed a relatively sharp rise (+€38 billion). Their increased interest rate advantage over short-term time deposits was probably the main reason for this.

Large inflows of funds in foreign payments

The expansionary effects on monetary developments generated by euro-area non-MFIs' payment transactions with non-residents were quantitatively more significant than the moderate monetary capital formation last year. In 2002, sizeable funds from outside the euro area flowed to resident non-banks. The net external position of the euro-area MFIs, in which such payments are reflected, rose by €164 billion, after having stagnated in the previous year. Higher trade surpluses were a factor in this as were securities transactions with non-residents. The inflows resulting from non-residents' acquisition of domestic equities and debt securities distinctly exceeded residents' investment in foreign paper, which came almost entirely to a halt in September and October.

2 Financial markets in the euro area

(a) Bond markets – the impact of disappointed economic expectations

Mixed movements in capital market rates

In 2002 capital market rates reflected market participants' disillusionment about the outlook for the global and euro-area economy; in the summer months, that mood began to dispel the optimism of the early part of the year and was prevalent from then on. The financial markets made a notably rapid recovery from the effects of the terrorist attacks of 11 September 2001 and economic expectations showed a perceptible improvement towards the end of the first quarter of 2002; this gave a slight boost to interest rates in the first half of the year and well into the summer. However, disappointing macroeconomic data put paid to hopes of a rapid, strong upturn in the euro-area economy and interest rates came under pressure again. By the end of the year, the average yield on euro-area government bonds had fallen from almost 5½% in the summer to around 4¼%. Under the impact of the geopolitical uncertainties associated with the Iraq crisis, the downward trend continued initially. In March 2003 capital market rates in the euro area fell to well below 4%, a new low, before starting to recover in the middle of the month. At the same time, the sharp appreciation of the euro against other major investment currencies was tending to have a dampening effect on euro-area capital market rates from the second quarter of 2002 onwards.

Yield curve and volatility affected by interest rate expectations

In parallel with the increase in long-term capital market rates in the first half of 2002, the term structure in the European capital market initially steepened somewhat. At the same time, given market players' optimism about the economy in the early part of the year under review, their uncertainty about forthcoming interest rate developments also declined. This was reflected in the implied volatility of Bund futures options. However, as scepticism about how the economy was going to develop grew, the yield curve became noticeably flatter again and was accompanied by a perceptible increase in implied volatility. It was only as the year went on, when expectations of a cut in the Eurosystem's key interest rates grew stronger and with the interest rate move in early December 2002, that interest rate uncertainty settled back to a broadly moderate level. The spread of long and short-term interest rates widened again and was around 140 basis points at the end of the period under review.

Levelling-out of interest rate differential over US capital market

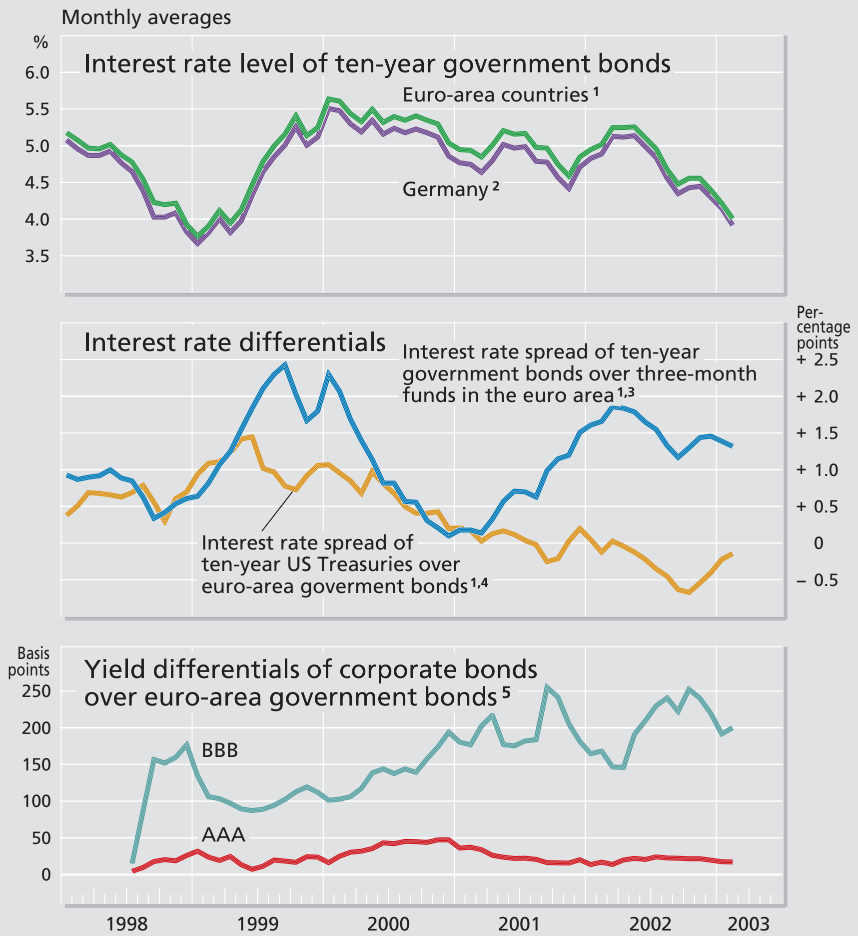
The general decline in long-term nominal interest rates was not only directly related to the reduced expectations of growth but also, to a very large extent, to the downturn in the equity markets. The dramatic price slumps on the stock exchanges in the second and third quarters of the year were accompanied by portfolio shifts in favour of fixed interest securities, which gave a corresponding impetus to the interest rate slide in the euro capital markets. The decline in yields on US government bonds was more marked than that on comparable euro-area bonds. In 2002 an interest rate spread of more than ¾ percentage point developed for a time, whereas in 2001 long-term nominal interest rates had been broadly identical on both sides of the Atlantic. European interest rates did not decline sharply again until towards the end of the year and in the first few months of 2003, leading to the interest rate spread over the US dollar levelling out.

Low real interest rates in the euro area…

Medium and long-term inflation expectations surveyed among experts also followed the same course as the nominal capital market rates. Expectations rose somewhat in the first half of the year before receding significantly during the

Interest rates in the euro-area bond market

Chart 8



1 Euro-area capital market rate: GDP-weighted yield of ten-year government bonds of all euro-area countries. — **2** Unweighted yield on outstanding Federal securities eligible for delivery on Eurex with residual maturities of nine to ten years. — **3** Euro-area three-month funds: up to the end of 1998 GDP-weighted average of euro-area countries, thereafter three-month Euribor. — **4** Ten-year US Treasuries. — **5** With a residual maturity of seven to ten years. Sources: Bloomberg, Thomson Financial.

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second half of the year; by the end of 2002 they were under 2%, back where they had started early in the year. By contrast, nominal capital market rates fell in 2002, on balance, by just over ¼ percentage point to below 4¼%. After adjustment for expected inflation, real interest rates at the end of the period under review were around 2¼%, down slightly on early 2002 and markedly lower than their average level in the 1990s.

... with differences between the member states

However, noteworthy differences between inflation rates in the individual euro-area member states have emerged, and expectations indicate that these will actually persist for some time. This will ultimately lead to some clear divergences of both short-term and long-term real interest rates across the euro-area economies, especially as the nominal interest rate spread across the individual countries had continued to shrink in 2001. This is particularly notable in the case of shorter maturities, where inflation rate differentials of more than 2 percentage points in some member states are even leading to negative real interest rates, which might tend to reinforce the existing growth differentials. Given the need to reduce concomitant tensions in the euro area, countries with persistently higher inflation rates remained under pressure to strengthen convergence within the single currency area by undertaking appropriate stability measures and structural reforms aimed at improving price and wage flexibility.

High risk premia on some corporate bonds

The deterioration of the outlook for growth and income in the course of the year under review affected the yield spreads of certain corporate bonds over euro-area government bonds. In particular, in the second and third quarters there was a striking rise in the risk premia for debt securities of borrowers with less than a first-class rating, although the situation has since relaxed again in this respect. At the end of the period under review, the yield premium on ten-year BBB-rated bonds was less than 200 basis points, ie of the same magnitude as at the start of 2002. Yield premia on paper with a higher rating were subject to far smaller fluctuations throughout the year. This was particularly true of debt securities issued by German banks, whose average interest rate spreads were less than 20 basis points and thus very low on a multi-year comparison.

(b) Massive price losses on the stock markets

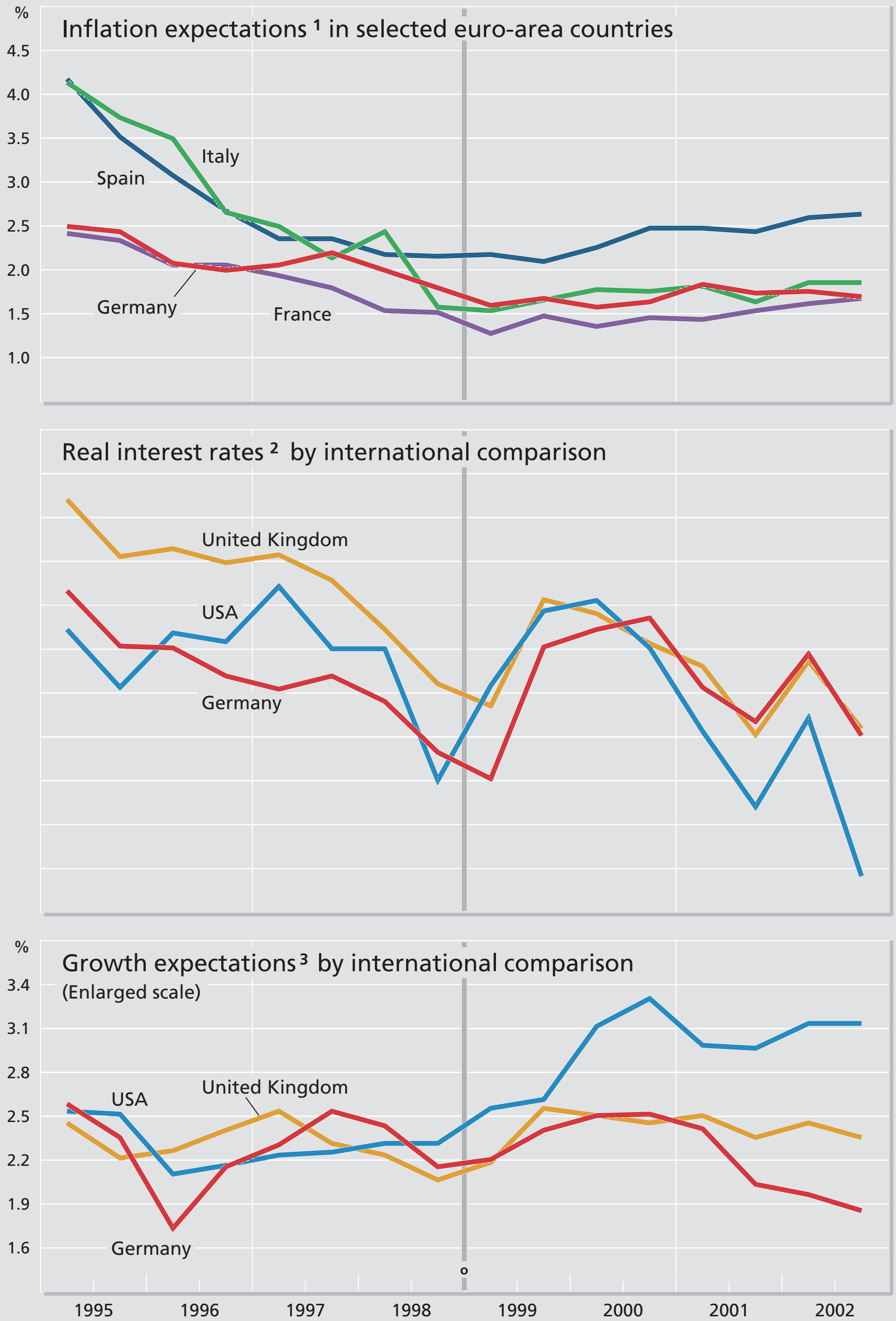
Crisis of confidence puts strain on equity markets

On the equity market, 2002 was a disappointing year. The slump in equity prices continued for the third year in succession and even gained speed. Prices began to slide especially strongly when serious accounting scandals at US companies exposed structural weaknesses in the compilation and monitoring of corporate data and financial analyses, severely shaking investor confidence around the world. In Europe, doubts simultaneously increased with regard to the strategic alignment of enterprises in key sectors such as telecommunications, technology and the financial sector. The decline in equity prices grew more intense over the summer months owing to unexpectedly weak economic indicators and the increasingly gloomy corporate outlook. Particularly large price losses were sustained by paper issued by the technology sector as well as by fund shares issued by insurance companies, whose balance sheets have also been affected as a result of (often large-scale) new investment in the equity markets in recent years. From mid-October, prices generally stabilised at a low level, but, given the un-

Inflation expectations and real interest rates

Chart 9

Six-monthly data



Sources: Consensus forecast, Bundesbank calculations. — **1** Expected average increase in consumer prices in the next five years. — **2** Five-year real interest rates based on inflation expectations over the next five years. — **3** Expected average GDP growth in the next five years. — **o** Start of European monetary union.

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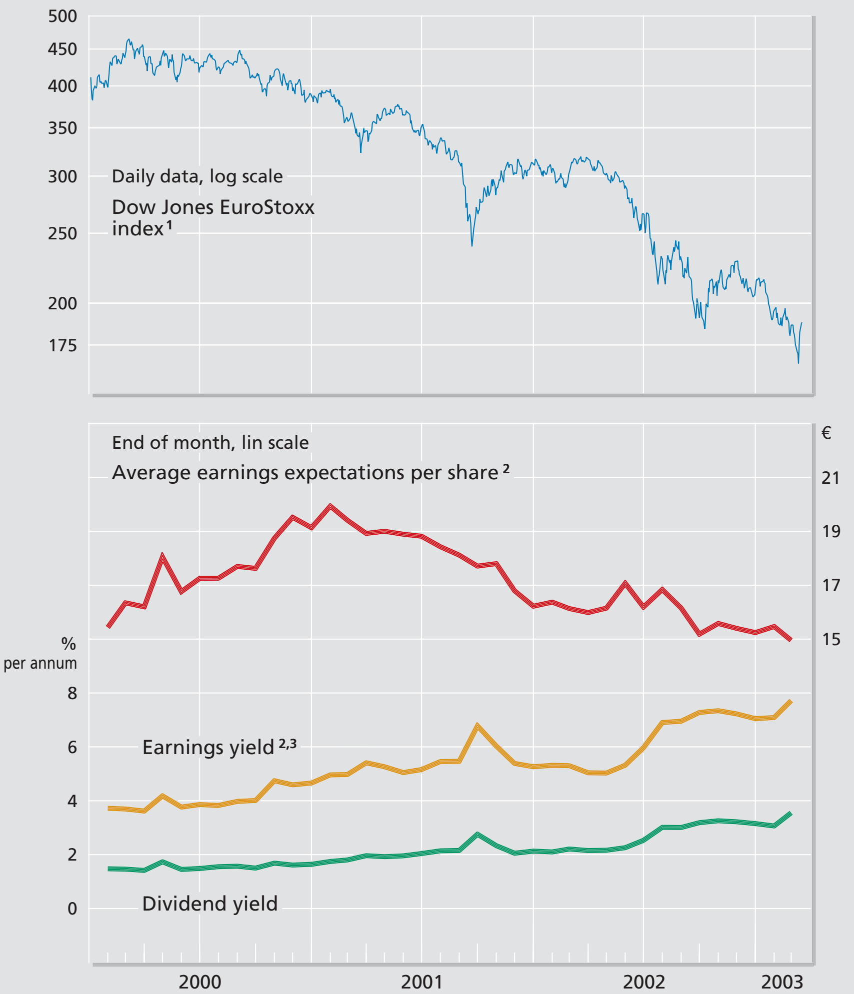
Share prices and fundamental determinants

Chart 10



1 End of 1991 = 100. Source: Deutsche Börse AG. — **2** Based on expected earnings per share for the next 12 months according to I/B/E/S. Source: Thomson Financial. — **3** As an inverse price-earnings ratio.

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certainty of the geopolitical situation, were coming under renewed pressure at the end of the period under review. When this *Annual Report* went to press, share prices in the euro area, measured on the broad Dow Jones EuroStoxx index were nearly 40% down on the start of 2002. Since their peak in March 2000, European shares have lost around 60% of their value and, at times, have reached their lowest level since 1996.

Measured on the basis of the implied volatility of relevant futures contracts, uncertainty in 2002 at times even exceeded the levels recorded during the Russian and LTCM crisis in 1998. Volatility remained exceptionally high up to the end of

High degree of uncertainty caused by geopolitical situation

the period under review. One reason for this is the intensification of the Iraq conflict, although that cannot be held solely responsible for the crisis of confidence on the equity markets.

Valuation level on a sounder basis

The dramatic collapse of equity prices started from a valuation level which, on the basis of key data, has to be classed as very high. Following their collapse, the sharp recovery of prices after 11 September 2001 and the stabilisation which then set in were accompanied by analysts' downward revisions of corporate profits. In spring 2002 analysts again began to lower their earnings estimates; by the end of the year, they had made an average reduction of more than one-quarter in the case of enterprises listed on the Dow Jones EuroStoxx index for financial year 2002 and of one-fifth for financial year 2003. However, the price-earnings ratios decreased due to falling stock prices, there was a perceptible increase of risk aversion among investors and major underlying variables were again approaching long-term average values. Viewed from this perspective, shares are now on a sounder basis than one year ago, even if their valuation is invariably complex and subject to considerable uncertainties. This uncertainty is reflected, *inter alia*, in analysts' estimates, which continue to show a wide spread, although this has been narrowing in recent months. Profit forecasts by share analysts are generally based on the assumption that the European economy will make a strong recovery, although risks are perceived in this context, too.

3 Financial markets in Germany

(a) Distinctly higher level of borrowing on the German bond market

Increase in bond sales

In 2002 there was a marked increase in the volume of German bond market issues. Gross sales of German bonds and notes reached a new peak market value of €934 billion. After deducting redemptions and adjusting for changes in issuers' holdings of their own bonds, net sales, at €124 billion, were also well up on the year (2001: €87 billion). This therefore halted the trend towards less borrowing which has been under way since 1999. The public sector, in particular, had greater recourse to the German capital market in the year under review. Owing to the poor budgetary situation and the very low level of capital market rates, public sector issuers upped their bonded debt by €62 billion (compared with €16 billion in 2001). The Federal Government alone accounted for €66 billion of this borrowing. However, it also redeemed outstanding debt instruments

Sales and purchases of securities

Table 4

€ billion

Period	Sales: Bonds – Total	Sales: Bonds – *of which* Foreign bonds	Sales: Equities – Total	Sales: Equities – *of which* Foreign equities	Sales: Mutual fund shares – Total	Sales: Mutual fund shares – *of which* Mutual funds open to the general public
1998	214.2	56.6	127.6	102.6	95.9	19.9
1999	292.7	94.6	150.0	114.0	111.3	37.7
2000	226.6	68.6	139.7	117.0	117.7	39.7
2001	180.9	94.2	82.3	64.7	96.5	35.5
2002	181.0	56.9	52.2	43.0	79.7	26.1
2002 Q1	68.1	19.8	18.7	15.1	23.7	13.7
Q2	55.6	19.1	20.3	17.7	16.7	4.6
Q3	66.1	13.5	3.8	2.1	13.4	4.6
Q4	– 8.9	4.6	9.4	8.0	25.9	3.2

Period	Purchases: Non-residents – Domestic bonds	Purchases: Non-residents – Domestic equities	Purchases: Domestic non-banks – Bonds	Purchases: Domestic non-banks – Equities	Purchases: Domestic credit institutions (including Bundesbank) – Bonds	Purchases: Domestic credit institutions (including Bundesbank) – Equities
1998	88.5	51.3	21.7	65.9	104.0	10.4
1999	136.9	46.9	81.0	84.5	74.7	18.6
2000	72.5	– 19.8	62.6	136.2	91.4	23.3
2001	66.4	84.4	78.6	12.6	35.8	– 14.7
2002	89.4	21.7	78.0	53.7	13.5	– 23.2
2002 Q1	20.7	8.0	25.1	19.3	22.3	– 8.6
Q2	31.9	10.1	7.9	19.3	15.9	– 9.1
Q3	41.0	– 0.1	30.1	9.5	– 5.0	– 5.6
Q4	– 4.2	3.7	15.0	5.6	– 19.7	0.0

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issued by its special funds for a total of €37 billion. The *Land* governments sold €33 billion (net) worth of bonds, after €23 billion in 2001. By contrast, domestic credit institutions raised €47 billion from sales of their own debt securities, ie less than in 2001 (€56 billion). As then, most of these were other bank bonds (€47 billion), for which, unlike Pfandbriefe, the institutions do not need to build up any special cover. Sales of debt securities issued by specialised credit institutions raised €22 billion (net), while €29 billion worth of public Pfandbriefe were redeemed. By contrast, sales of corporate bonds remained relatively buoyant, again reaching the record level of 2001 – €15 billion (net) – after several decades of virtual insignificance. Non-resident issuers raised €57 billion in the German bond market.

Bond purchases

In the year under review, non-resident investors were the most important group of purchasers; following a low in 2001, they again invested large amounts in the German bond market – €89 billion (net). As in the previous year, domestic non-banks added domestic and foreign paper worth €78 billion to their portfolios. Unlike 2001, domestic paper took a far larger share (€38 billion, after

€22 billion in 2001). By contrast, credit institutions reduced their holdings of domestic bonds and notes (-€3 billion) and purchased, on balance, foreign bonds and notes (€17 billion). Of bonds issued by non-resident borrowers, euro-denominated paper dominated the purchases made by both credit institutions and domestic non-banks.

(b) Fewer issues in the German equity market

Hesitant use of equity market for financing

As prices fell further in the equity market, the downward trend in share issuing, which had begun in 2000, continued. In 2002 domestic enterprises issued shares to a market value of €9 billion, only €3 billion of which were issued by listed enterprises. This was roughly half the volume of issues in 2001 (€18 billion). Only six firms made stock market IPOs in the year under review. All in all, these raised capital amounting to €0.2 billion only; in 2001, 21 enterprises had entered the stock market, issuing €3.2 billion worth of shares.

Share purchases

Non-resident investors were the most important group of investors in the domestic equity market; they purchased €22 billion worth of domestic equities, primarily as portfolio investment. By contrast, domestic credit institutions again reduced their holdings of domestic shares (by €14 billion). On balance, they sold foreign paper (€9 billion) for the first time for many years. The behaviour of the domestic non-banks was different; they continued to add large volumes of foreign shares to their portfolios (€52 billion), thus following a trend which has been observed since the mid-1990s. In the year under review, they purchased only €2 billion (net) worth of German shares.

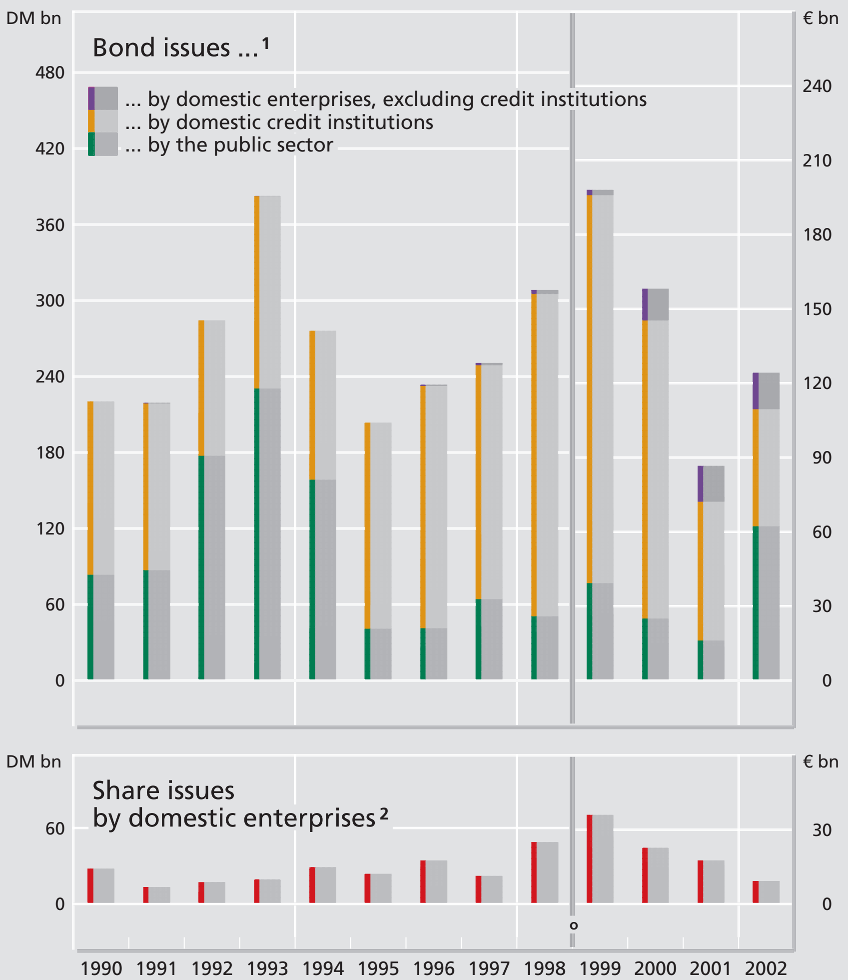
(c) Venture capital market

Restraint in the venture capital market

After the disappointments and disillusionment of recent years, consolidation and restraint again characterised developments in the German venture capital market in the year under review. Despite the adverse environment, capital investment companies' overall portfolio nonetheless increased by 5% to €16.8 billion. Losses arising from current holdings probably slowed portfolio growth in terms of value, leading to a considerable need for value adjustments and largely discouraging new investment. Venture capital investment was reduced in the biotechnology and information and communication technology (ICT) sectors in particular. During the stock market boom which lasted into 2000, as much as half of all gross investment was in these hi-tech sectors; the opportunities to make, in some cases, very large gains are likely to have given an excessive boost

Net borrowing in the German capital markets

Chart 11



1 At market value less redemptions and changes in issuers' holdings of their own bonds. — 2 Sales at market value. — o From 1999, data in euro.

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to this development. The low willingness among capital investment enterprises to take risks in the year under review was also reflected in the again limited resources available for seed and start-up financing. Instead, the focus continued to be on buy-out financing.

(d) Sales and purchases of mutual fund shares

Mutual funds affected by stock market slump

The sharp fall on the equity market also affected the investment sector. Sales of share certificates issued by domestic mutual funds declined for the fourth year in succession. This affected specialised funds and funds open to the general public, which raised €47 billion and €26 billion respectively (compared with €41 billion and €36 billion in 2001). Sales of non-resident fund shares also declined, by €13 billion to €7 billion. Shifts within investment funds open to the general public are illustrative of private investors' preferences, which changed during the bear market. These investors continued to focus on open-end real estate funds, which they considered to be low-risk; these funds sold a record €15 billion worth of shares (2001: €10 billion). Savers invested far less in money market funds (€4 billion). Despite the large loss of value on the stock markets, investors did not, on balance, redeem any share-based fund certificates. However, net inflows of funds, at €3 billion, were still below the already low level of 2001.

(e) Ongoing concentration in the European stock exchanges

Fierce competition in stock market trading

Measured in terms of business volume, in 2002 stock market equity trading in Europe tended to continue shifting to the trading platforms of the London Stock Exchange, Euronext and Deutsche Börse AG. Nonetheless, the liquidity of many national blue-chip stocks remained concentrated on their home stock exchanges. Clearing and settlement, which is handled mainly by Euroclear and Clearstream, was still taking place, by and large, within the existing national structures. With regard to stock trading, the exchanges were clearly endeavouring to attract trading participants and liquidity by offering favourable terms. The fierce competition saw a further increase in the importance of electronic trading platforms. As well as reducing trading costs, computerised share trading has tended to boost price transparency and liquidity in the European equity markets.

But relatively high cross-border transaction costs

Differences in the legal and tax systems as well as non-standard technical requirements are, however, still hindering progress in securities settlement, especially in cross-border transactions. In Europe, this makes such transactions still comparatively expensive to settle. Despite further mergers of central securities depositories in the year under review, there are still hardly any signs of standard terms being set. With regard to policy, the agreement in 2002 on the introduction of a European stock-market passport for shares and bond issuers was a breakthrough on the way to a European market for financial services.

Innovations at the German stock exchange

Decisions taken by Deutsche Börse AG will mean innovations in share trading in Germany from 2003 onwards. First, a central counterparty will be introduced in the cash market; in Germany that principle has so far applied only to forward transactions on Eurex. Second, since the start of the year, Deutsche Börse AG has subdivided the share market into a quality segment (Prime Standard), which is subject to a fee and which imposes more stringent disclosure requirements on firms, and a segment whose enterprises fulfil only minimum legal requirements (General Standard). The "architecture" of the Prime Standard segment, which is scheduled to be implemented in the spring of 2003, provides for a new combination of the small and mid-cap indices SDAX and MDAX as well as a system of sector indices, which, *inter alia*, will involve fairly large shifts among mutual funds specialising in small and mid-cap enterprises. In addition, TecDAX, an index of 30 enterprises, is set to replace NEMAX50, which has so far determined the general price development of the most important Neuer Markt stocks. Some 380 enterprises have already been admitted to this new quality segment, which is also open to non-resident issuers. However, some of the innovations, such as the terms and conditions in the Prime Standard segment, have caused some listed companies to call for corrective adjustments.

(f) Development in the deposit and lending business of German banks with domestic customers

Further sharp increase in overnight deposits

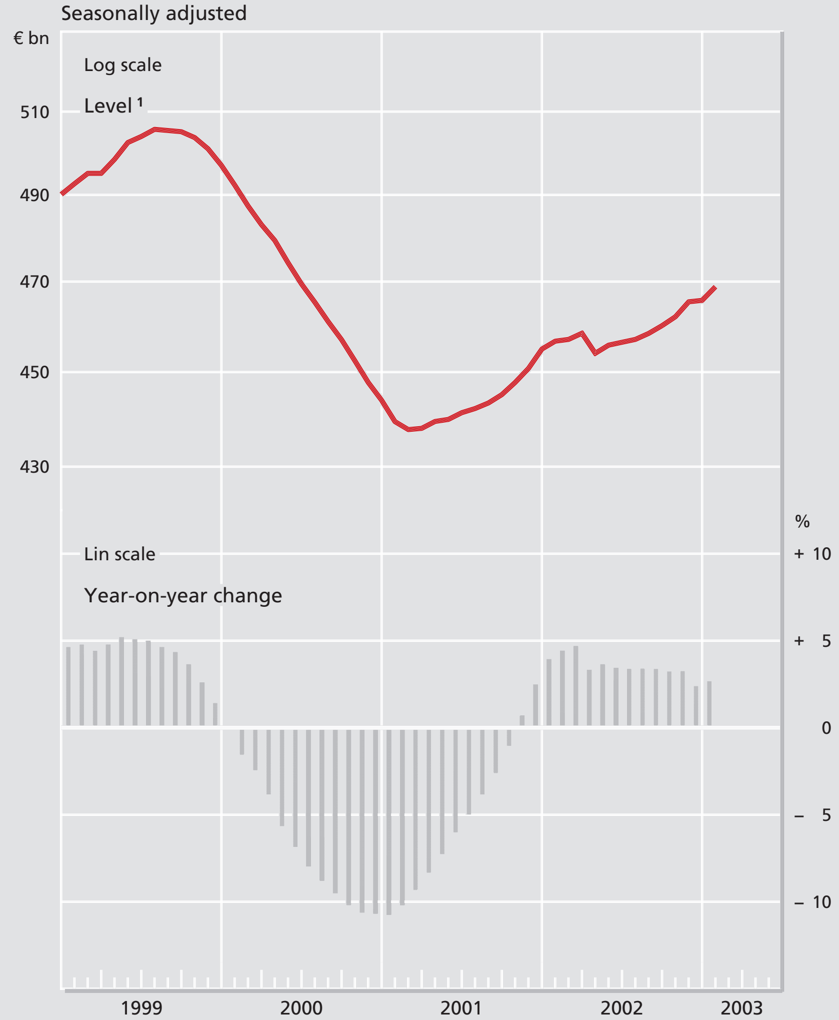
In the deposit business of German banks with resident customers, overnight deposits again rose sharply in 2002, by €50½ billion or 9½%. In 2001 they had already increased by €83 billion or just under 19% owing to the decline in the amount of currency in circulation. After a cautious rise at the start of the year, overnight deposits increased especially sharply in the spring and summer, when some share prices fell markedly and uncertainty about future interest rate developments on the capital market was high. In the autumn, when speculation about prices in the equity markets was again rife for a time, the increase was again somewhat slower. Overall, the main demand was clearly for sight deposits which are remunerated at market rates. There was a corresponding sharp rise in overnight deposits, especially at direct banks.

Varied developments among other types of deposits

Owing to the low opportunity costs, in 2002 there was again a marked increase in deposits with an agreed period of notice of three months (€11 billion), all of which, on balance, were special forms of savings bearing a higher rate of interest. Shifts out of deposits with longer periods of notice and short-term time deposits (with a maturity of up to two years) were also a factor; both types of deposits had been reduced markedly in 2001 (by €10½ billion and €11 billion respectively). Individuals were the main players to make a sharp reduction in their short-term time deposits, after having added to them considerably in 2001. Counter to the general tendency to favour shorter lock-in periods for

Short-term savings deposits of domestic non-banks at German MFIs

Chart 12



1 End of month; statistical changes eliminated.

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interest rates, time deposits with longer maturities (of more than two years) increased, at €17 billion, more sharply than in 2001 (€5 billion). In addition to individuals, insurance companies were the main operators forming longer-term time deposits.

Lending to the private sector again weak

There was a further decline in domestic private sector borrowing from German banks in 2002. After €117 billion in 2000 and €50½ billion in 2001, there was only a €16 billion increase in lending in the year under review, corresponding to a rate of increase of only ½%. The weak credit growth is due primarily to cyclical factors, which were subduing enterprises' and individuals' demand for credit up to the end of the period under review. However, given the increasing number of insolvencies and the credit losses which are frequently sustained by the banks as a result, there are also indications that institutions are exercising a certain restraint with regard to lending on account of the greater awareness of income and risk. In particular, short-term loans to the private sector were reduced by €24½ billion in 2002. On balance, German banks granted only medium and long-term credit to the private sector (€26½ billion). There was also little growth in securitised lending by the banks to domestic enterprises. Especially in the spring months, the banks sharply reduced their involvement in the domestic capital market, in fact, and did not add further paper issued by the private sector to their portfolios until the second half of the year.

Lending to the public sector stagnated

Lending by German banks to the domestic public sector stagnated in the year under review. There was even a further marked decline in loans (by €20 billion), which had already gone down by €10 billion in 2001. Unlike the financing behaviour of individuals, the public sector mainly reduced its long-term bank lending (with a maturity of more than five years) while short and medium-term lending showed a further increase. Purchases of bonds and notes issued by the domestic public sector provided a certain counterweight to the decline in loans granted to the public sector; on balance, German banks increased their investment in public sector bonds and other government debt securities by €19½ billion.

(g) Developments in the banking sector

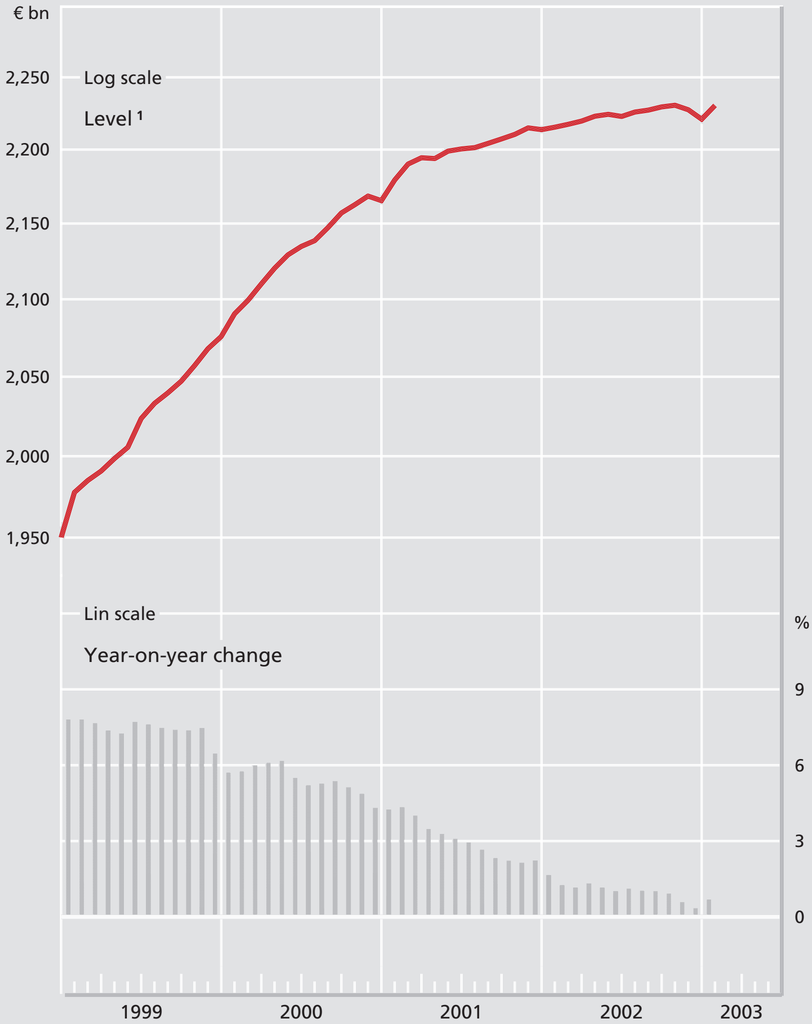
Varying development tendencies in the lending business of the various categories of banks

With regard to the lending business of private domestic non-banks, there were again extensive changes in market shares in 2002. For instance, the savings banks sector again expanded its market share in 2002, while commercial banks, as a group, further reduced their lending to the private sector. The big banks, in particular, recorded distinct decreases in lending to domestic enterprises and individuals. Specifically, loans to the private sector by savings banks and *Land* banks expanded by just under 2% and 1½% respectively, while the commercial banks taken together reduced their loans by just under 2½%. The lead was taken by the big banks, which reduced their loans by just under 7%, whereas the regional and other commercial banks increased their lending markedly by 4%. In the cooperative banking sector the regional institutions of credit cooperatives decreased their current lending by 11%, whereas lending by the credit cooperatives themselves went up by 1%.

Loans to enterprises and individuals in Germany

Chart 13

Seasonally adjusted



1 End of month; statistical changes eliminated.

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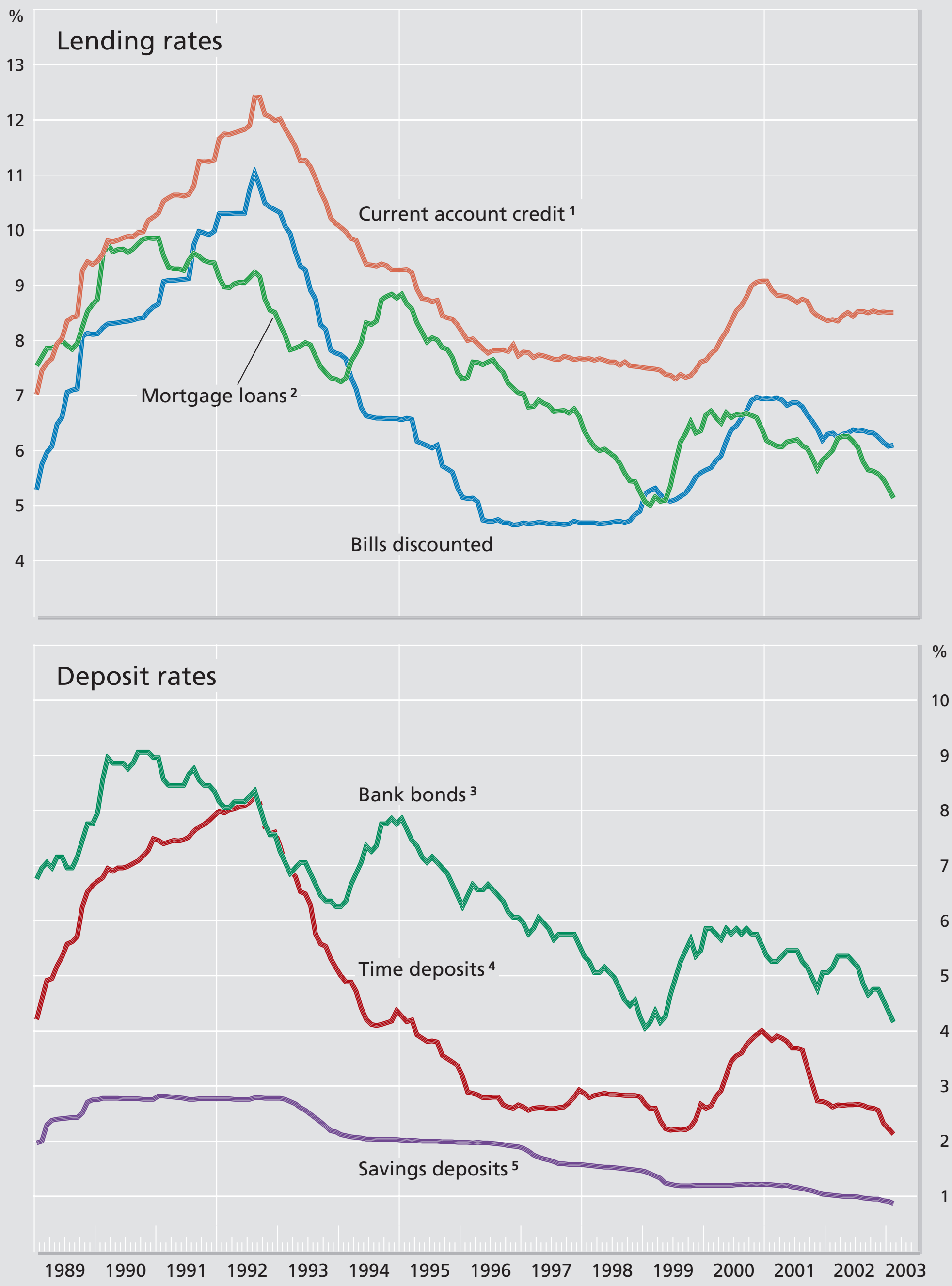
Slight overall decline in share of lending to non-banks

Given the weak credit development in 2002, which even declined in several categories of institutions, the share of lending to domestic non-banks in the balance sheet total fell again slightly as an average of all banks – by more than ¾ percentage point to just over 46½%. This change is mainly attributable to the above-mentioned developments at the commercial banks and, in particular, at the big banks. On the liabilities side of the banks' balance sheet, the share of non-bank deposits in total borrowing by banks, at 37½% overall, remained high. Owing to residents' very marked preference for liquidity, the importance of sight deposits increased, while that of savings deposits and savings bonds waned.

Selected bank interest rates *

Chart 14



* Since January 1991, including the rates applying in eastern Germany. — **1** Of €500,000 and more but less than €2.5 million; movement in November-December 1996 influenced by the changeover to new interest rate statistics. — **2** Average effective rate for fixed rate mortgage loans secured by residential real estate with interest locked in for ten years. — **3** Yield on bank bonds outstanding with a residual maturity of over nine but not more than ten years. — **4** Up to and including October 1996, with an agreed maturity of one month to three months inclusive – from November 1996, with a maturity of one month; for amounts of €50,000 and more but less than €500,000. — **5** Up to the end of June 1993, savings deposits at statutory notice, thereafter at three months' notice; earning minimum/basic interest.

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Further decline in performance

Following the already unsatisfactory performance growth in 2001, the currently available information for financial year 2002 reveals that a further marked worsening of the overall performance figures may be expected. In terms of the balance sheet total, the operating result and the pre-tax profit for the year are likely to show a further decline. Given the flattened interest rate curve, the interest rate spread is likely to decrease further and net commissions are likely to have been adversely affected by the weak equity markets and reduced stock exchange turnover. Furthermore, the weak development of the economy and a further rise in company insolvencies have led to risk provisioning related to credit transactions placing a greater strain on the banks' results than in the previous year. In addition, higher write-offs of shares, credit and claims from investment abroad are likely to place additional pressure on net income or net charges from the valuation of assets. Given the development of interest rates, write-downs of fixed interest securities should, however, have hardly any impact. By contrast, sales of some financial assets will again have a stabilising effect on performance. Regarding expenditure, there seems to have been some initial success in terms of administrative costs. The extensive cost-cutting measures that have been introduced are leading, however, to some additional temporary strains, with the result that, on balance, no great amount of relief can yet be expected from the expenditure side despite some drastic cuts.

Continued structural changes

The number of credit institutions went down by 156 to 2,365 in 2002; the decrease mainly involved credit cooperatives (130). Consolidation also continued at the savings banks. In addition, there was some initial restructuring in the category of *Land* banks, given the removal of government guarantees by mid-2005. Especially in view of the weak performance by the banks, consolidation can also be expected to continue in 2003. In addition, cooperation projects at the level of payment transactions, securities settlement and debt management and in the field of risk management seem to be making progress and, in some cases, to be going beyond the boundaries of the individual categories of banks.

III Economic trends and economic policy in Germany

1 Weak recovery overshadowed by high risks

Economic outlook poor

The performance of the German economy was again disappointing in 2002. Although it was possible early in 2002 to stem the downward trend that had set in during the second half of 2001 and to set off again on a generally positive course, no economic breakthrough emerged. While exports continued to fare well in an internationally difficult environment, domestic demand again proved to be the weak link in the chain. Thus, the recovery process had a narrow base and was rather sluggish and lacking in power; towards the end of the year it actually came to a standstill.

Over the year as a whole total economic activity, measured in terms of real GDP, increased by no more than 0.7%; this, too, is an indication that the economy was still in the period of cyclical weakness that had been persisting since mid-2001. Given the low starting point at the beginning of the year, the lack of momentum meant an economic growth rate of only 0.2% for 2002 as a whole compared with the already modest rate of 0.6% a year before.

This was not only the smallest rise in output since the dramatic cyclical downturn in 1993; once again, Germany was unable to keep up with output in the euro area and other industrial countries. Owing to the under-utilisation of plant capacity, the labour market also came under greater pressure; in December 2002 10.1% of the workforce was registered as unemployed compared with 9.5% a year earlier. The unemployment rate rose further at the beginning of 2003 and stood at 10.5% in February.

The lack of more favourable economic growth prospects last year and the severely depressed state of private expenditure as a result of the pessimistic mood, the marked preference for liquidity and the high risk premiums were due to a cumulation of shocks and uncertainties which, in their nature and extent, may be described as unusual. If an economy – like that of Germany at present – is in a state of virtual stagnation, however, even fairly minor disturbances and downturns in sentiment can have a severe impact. Despite the unfavourable start to 2003 and the persistent handicaps, there is still a chance of improvement later in the year. However, this is very much dependent on the removal of the many existing uncertainties and the revival in investor and consumer confi-

Key economic variables in Germany

Table 5

Percentage change from previous year

Item	1999	2000	2001	2002
Growth (real) [1]				
Private consumption	+ 3.7	+ 1.4	+ 1.5	– 0.6
Government consumption	+ 1.0	+ 1.2	+ 0.8	+ 1.5
Expenditure on machinery and equipment	+ 7.2	+ 9.5	– 5.8	– 9.4
Buildings	+ 1.4	– 2.6	– 6.0	– 5.9
Other investment	+ 13.5	+ 8.4	+ 5.0	+ 2.5
Stockbuilding				
Change (in € billion)	– 8.3	+ 4.0	– 12.5	+ 1.3
Domestic demand	+ 2.8	+ 1.8	– 0.8	– 1.5
External balance of goods and services [2]				
Change (in € billion)	– 13.4	+ 19.9	+ 27.3	+ 31.8
Exports	+ 5.6	+ 13.7	+ 5.0	+ 2.6
Imports	+ 8.5	+ 10.5	+ 1.0	– 2.1
Gross domestic product	+ 2.0	+ 2.9	+ 0.6	+ 0.2
Contribution to GDP growth in percentage points				
Domestic demand (excluding stocks)	+ 3.2	+ 1.6	– 0.2	– 1.5
Stockbuilding	– 0.4	+ 0.2	– 0.6	+ 0.1
External balance of goods and services	– 0.7	+ 1.0	+ 1.4	+ 1.6
Employment				
Employed [3]	+ 1.2	+ 1.8	+ 0.4	– 0.6
Average working time per employed person	– 0.7	– 1.1	– 0.8	– 0.5
Total number of hours worked	+ 0.6	+ 0.7	– 0.4	– 1.0
Unemployed (in thousands) [4]	4,099	3,889	3,852	4,060
Western Germany	2,604	2,380	2,320	2,498
Eastern Germany	1,495	1,508	1,532	1,563
do. as percentage of the civilian labour force	10.5	9.7	9.4	9.8
Western Germany	8.6	7.6	7.2	7.6
Eastern Germany	17.3	17.1	17.3	17.7
Prices				
Consumer price index	+ 0.6	+ 1.4	+ 2.0	+ 1.4
Producer prices of industrial products [5]	– 1.0	+ 3.4	+ 3.0	– 0.5
Overall construction price level	– 0.3	+ 0.7	+ 0.2	+ 0.1
Import prices	– 0.5	+ 11.2	+ 0.6	– 2.5
Export prices	– 0.5	+ 3.5	+ 1.0	– 0.1
Terms of trade	0.0	– 6.9	+ 0.3	+ 2.3
GDP deflator	+ 0.5	– 0.3	+ 1.4	+ 1.6
Productivity and labour costs				
GDP per hour worked by employed persons [1]	+ 1.5	+ 2.2	+ 1.0	+ 1.2
Compensation per hour worked by employees [3]	+ 2.0	+ 3.3	+ 2.5	+ 2.2
Labour costs per unit of value added in real terms in the economy as a whole [6]	+ 0.5	+ 1.1	+ 1.5	+ 0.9

Sources: Federal Statistical Office; Federal Labour Office. — **1** At 1995 prices. — **2** Balance of transactions in goods and services with the rest of the world. — **3** Domestic concept. — **4** As defined by the Federal Labour Office. — **5** Domestic sales. — **6** Gross compensation generated in Germany per hour worked by employees divided by real GDP per hour worked by employed persons.

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dence. A clear course set out by economic policy makers could make a decisive contribution here.

Investment ratio at all-time low

The German economy was particularly badly hit by the weakness in gross fixed capital formation, with investment in this area declining by 6¾% on an annual average compared with 5¼% in 2001. With the exception of "Other investment", which essentially contains the creation of computer software and accounts for only a small proportion (7%) of total fixed investment, the propensity to invest generally decreased. After deduction of depreciation, which represents the amount of fixed assets that have been used up as a result of normal wear and tear and foreseeable obsolescence, net expenditure on fixed capital formation in relation to nominal GDP amounted to only 3¼% in 2002 compared with an average of 7½% during the period from 1991 to 2000. Despite the budgetary deficit, which is structurally-related for the most part, gross fixed capital formation by general government probably did not even amount to the value of depreciation. The fall in the net investment ratio did not fail to have repercussions for the growth in fixed investment. Whereas the average growth in the total capital stock was 3¼% (at 1995 prices) in 1992, it was probably less than 2% in 2002. If housebuilding is excluded, the accumulation rate actually levelled off even faster.

Investment in machinery and equipment continues to fall sharply

The year-on-year downturn in real investment in machinery and equipment was particularly pronounced, at 9½%. After the elimination of the usual seasonal variations and changes in the number of working days the decline between the last cyclical peak in the summer of 2000 and the end of 2002 amounted to 16%. This is yet another illustration of how responsive industrial investment is to cyclical factors, global shocks and risks. In periods of increased uncertainty the "wait-and-see" option evidently plays an important role, and the usual profitability thresholds are raised as a result. Even so, the stabilisation of investment in machinery and equipment at a low level at the end of 2002 might be an initial indication that the need to adjust the capital stock has diminished.

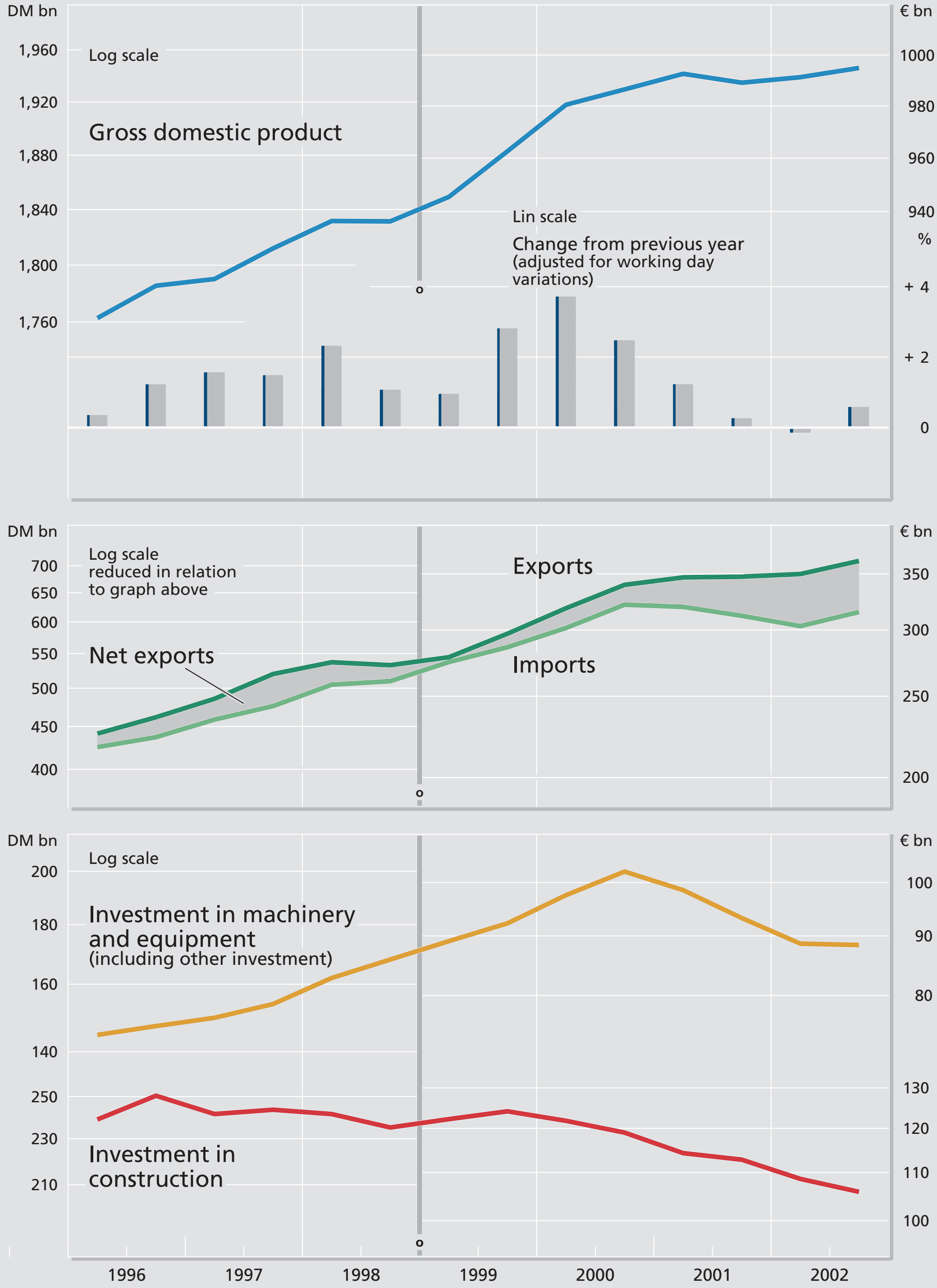
Adjustment crisis in construction continues

The contraction of the construction sector, which continued in the year under review at the same pace as before, proved yet again to be a special problem for the German economy. Real investment in construction was about 6% below the previous year's level. That means that the cumulated decline since the last peak in 1994 amounted to almost one-fifth. Last year's investment did not even reach the level of 1991. Adjustment in eastern Germany was particularly pronounced. For the third year in succession the fall in the rate of real investment in

Gross domestic product and selected expenditure components

Chart 15

1995 prices, seasonally adjusted, half-yearly



o From 1999 data in euro.

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construction in eastern Germany was in double digits. Given a downturn of 4¾% in western Germany, however, a significant fall was recorded there, too. Generally speaking, all sections of the construction sector were affected by a sharp downward trend. In view of the large stock of empty dwellings, the fall in the number of people living in eastern Germany and the generally satisfactory provision of residential accommodation in western Germany, investment in housebuilding, when calculated at 1995 prices, was 6% less in Germany as a whole than in the previous year. The decline in investment in industrial construction likewise continued, but at least part of that decrease was probably in connection with the reduced need to expand capacity. Owing to the increasing budgetary problems, general government also restricted its construction activity significantly.

Decline in private consumption

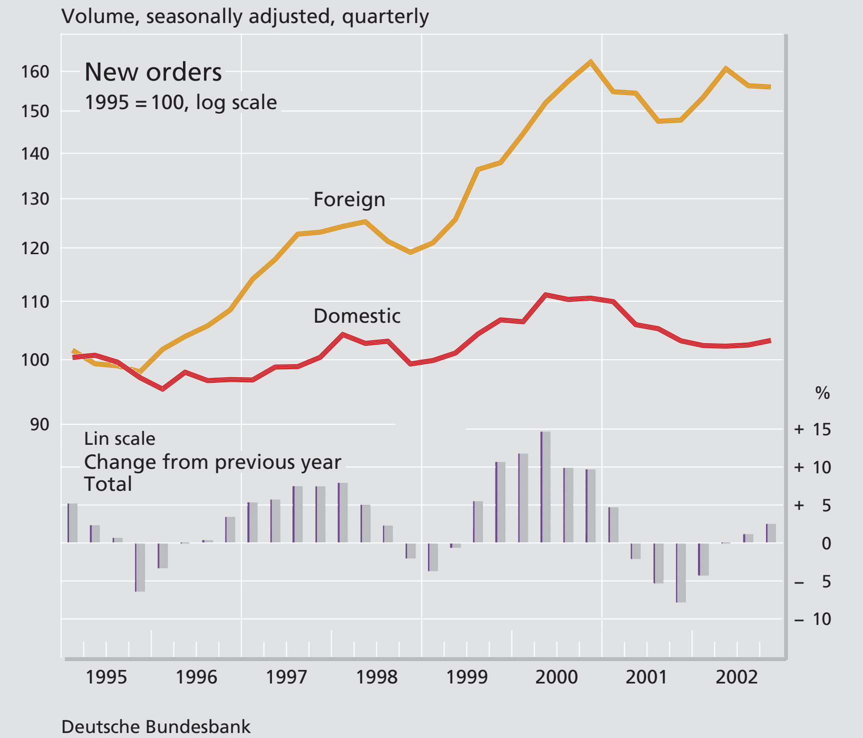
In 2002 consumer spending by individuals declined in real terms for the first time since German reunification. In the previous year it had stimulated economic activity. This decline is primarily a reflection of the sluggish growth in households' disposable income, which rose by no more than 1¼% at current prices and was actually down on the previous year if inflation is eliminated. Increasing unemployment was clearly also a factor here. It is true that labour-market-related transfer payments increased in return. However, this only partially compensated for the loss in purchasing power. Another point is that households saved a greater proportion of their disposable income. Several factors probably contributed to the increase in the saving ratio from 10% in 2001 to almost 10½% in 2002. The general uncertainty on the part of many consumers about the effects the introduction of euro banknotes and coins would have on prices probably curtailed their willingness to spend, especially in the first few months of the year. This was followed later in the year by growing uncertainty about general economic growth and, in particular, about the increasingly gloomy outlook for the labour market. Finally, the fall in share market prices probably also played a role in encouraging saving. By contrast, the new promotion of private pension provision ("Riester pension") had almost no discernibly positive effects on the saving ratio.

Export performance comparatively good

Although German exports of goods and services, which rose by 2½% in real terms in 2002, did not retain their underlying momentum, German exporters were able to maintain their international market position despite the difficult conditions worldwide. This is an indication that German exports are competitive with respect to price and quality and are also regionally well spread. Towards the end of last year, however, industrial orders received from abroad had ceased

Demand for industrial products

Chart 16



to show an increase. As real imports declined by 2% in 2002, real net exports provided as great a boost (at 1½ precentage points) to macroeconomic growth as in 2001. It must be remembered in the case of such a mechanical analysis of the balances that last year's movement in imports, which was downwards for the first time since 1993, has to be seen primarily in connection with weak overall demand and can therefore be explained largely by endogenous factors. Consequently, the economic momentum derived from foreign trade was not so pronounced in 2002 as in the year before.

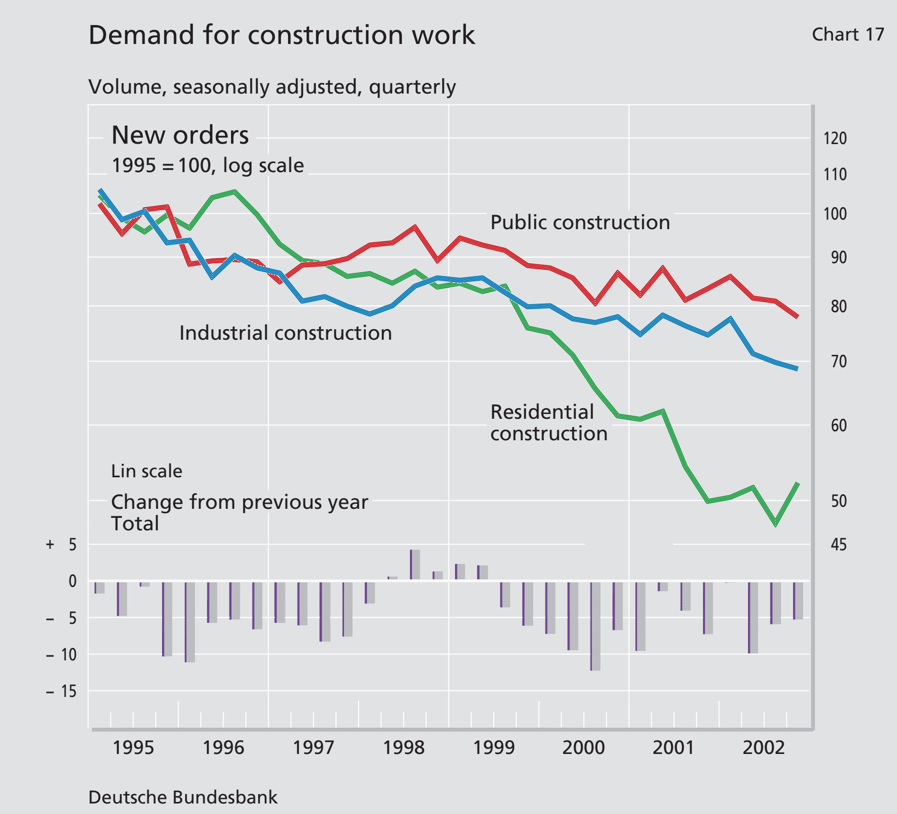
Growth prospects for 2003 depressed

For Germany, the new year started without momentum. Consumer sentiment remained persistently at a fairly low ebb owing to the burden of various additional taxes and levies, rising unemployment and the continuing debate about the pros and cons of economic policy reforms. Although the mood had stabilised in trade and industry, the assessments given by enterprises in surveys varied considerably from one sector to another. According to the latest data provided by leading indicators, total economic output in the first quarter of 2003 will probably have risen again somewhat. However, it is only if this development is confirmed in the next few months that some improvement might emerge on the labour market towards the end of the year. That will certainly only materialise if the international environment is intact, and it is again the US economy which will play the leading role in that.

Wage round in 2002: large pay settlements follow industrial disputes

In contrast to those in previous years, the 2002 wage round was a source of conflict. This became clear at an early stage. On the one hand, the trade unions' pay demands were much higher than in earlier years; on the other hand, employers pointed to the weak macroeconomic situation and the low level of profitability. Thus, strikes occurred in several economic sectors during the wage negotiations. In the end the pay agreements concluded in 2002 were much higher than in previous years.

The first major agreement in the 2002 pay round was concluded in the west German chemical industry. Management and labour agreed to a one-off payment of €85 for the first month and a linear increase of 3.3% for a further twelve months. Furthermore, they introduced a major new element with regard to collective agreements, namely the option of making the annual special payment in the chemical industry performance-related. In the metal-working and electrical engineering industry the new pay settlement, which emerged only after lengthy negotiations and strikes, is scheduled to run for 22 months and includes two "zero months" as well as a lump-sum payment of €120 for May 2002, which is to be followed by an increase in negotiated rates of pay in two stages: 3.1% from 1 June 2002 and a further 2.6% from 1 June 2003. In addition, all employees receive a lump-sum payment amounting to 0.9% of the negotiated rate of pay for the period of the first stage and a further lump-sum payment amounting to 0.5% of the negotiated rate of pay for the period of the second stage. The terms of the settlement for the construction sector, which is still under severe pressure to adjust, run for a period of 24 months and likewise provide for an increase in two stages: 3.2% from 1 September 2002 and a further 2.4% from 1 April 2003. Finally, the pay settlement concluded in 2000 for the public sector ran until 31 October 2002. Here, too, management and labour agreed at the beginning of 2003 to a longer-term settlement, which would extend into 2005. The settlement provides not only for one-off payments in March 2003 and November 2004 but also for increases in the basic remuneration in several stages: 2.4% from 1 January 2003, a further 1.0% from 1 January 2004 and a final additional 1.0% from 1 May 2004. Furthermore, the pay of public sector employees in eastern Germany will be raised in two stages from the previously valid ratio of 90% of the corresponding west German wage and salary levels to 92½%; it is planned to bring east German pay fully into line with that of western Germany by the end of 2009.



Agreed rates of pay, wage drift and actual compensation

The average level of negotiated wages and salaries in the economy as a whole rose by just over 2½% on an annual basis in 2002 compared with rises of just 2% in each of the previous two years. This implies that the basic position of moderate negotiated pay rises did not continue. The pay increases exceeded the available scope for income distribution although it has to be borne in mind that the scope for doing so was reduced discernibly last year by higher indirect taxes and the raising of contribution rates to the statutory health insurance scheme. Even so, enterprises evidently succeeded in keeping the increase in wage costs in check by reducing non-negotiated wage components, with the result that the actual earnings per employee increased by an average of only 1½%. The fact that pay settlements, despite the remaining widespread application of the negotiated agreements as a whole, now definitely permit more scope for certain deviations from the negotiated standard than before probably also played a role. Furthermore, there might have been a decline in the use which enterprises that are not bound by negotiated pay settlements have traditionally made of collective wage agreements as a guideline. This applies especially to enterprises in the private services sector.

Distinct fall in employment

For the labour market 2002 was a year of setbacks. Unemployment rose sharply, and the level of employment fell for the first time in five years. According to an estimate by the Federal Statistical Office, the number of persons employed declined on an annual average to 38.69 million. That was almost 230,000, or 0.6%, fewer than in the previous year and means that the increases in employment in 2001 were more than offset by last year's decline. The volume of work actually decreased by 1%. Many firms tried to avoid redundancies by restricting working hours. Somewhat more than 205,000 employees were on short-time working on an annual average; that was two-thirds more than in 2001. However, as the accumulated working time that had been built up when orders had been more plentiful was increasingly depleted, the number of redundancies increased. While an average of less than 30,000 persons per month lost their jobs in the first six months of the year, the figure was subsequently more than 35,000.

Decline in numbers employed sharpest in manufacturing

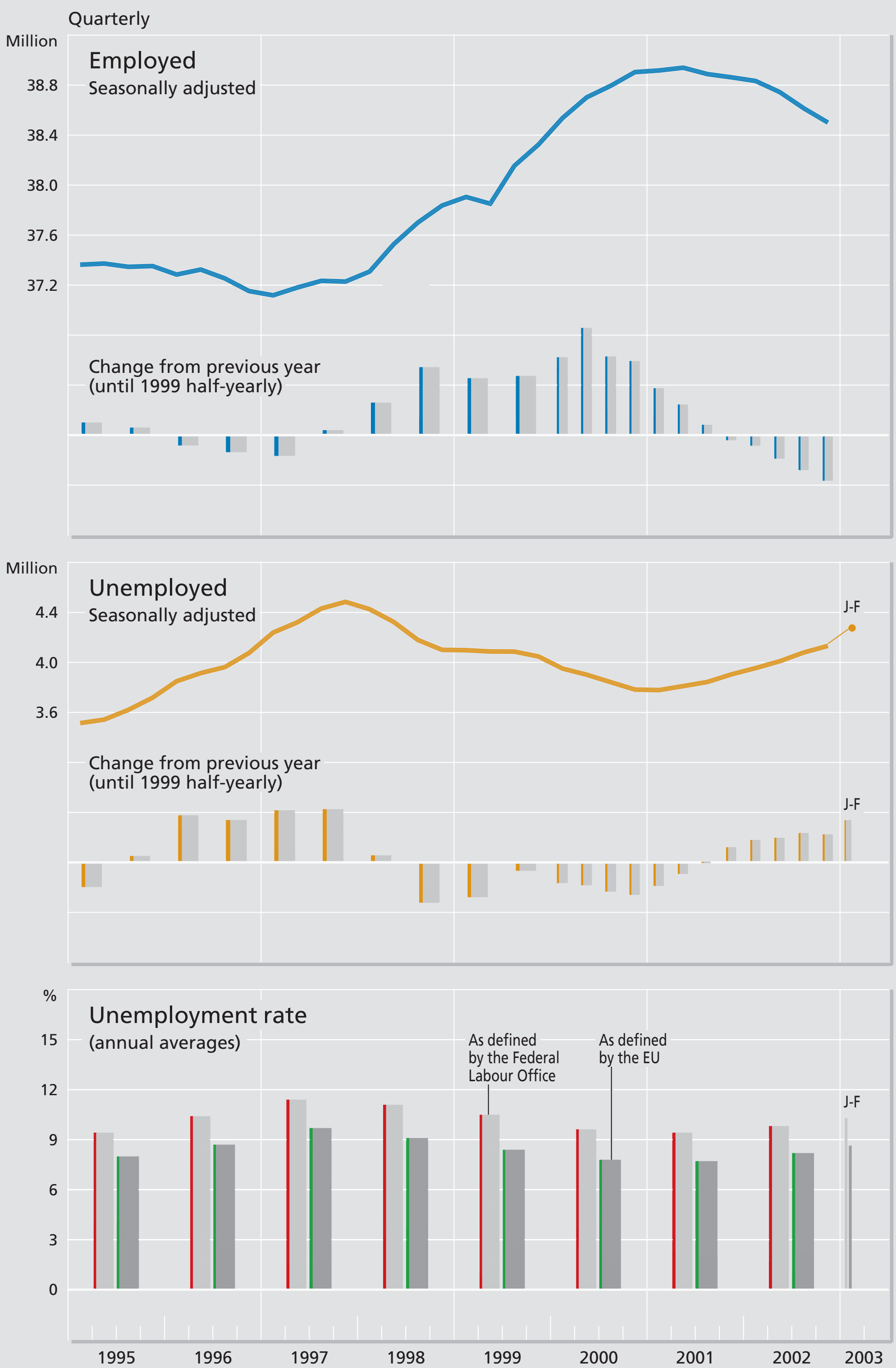
Employment fell fastest in industry (including the energy sector). On an annual average the number of persons employed declined by just under 180,000. In construction, where the numbers employed declined for the seventh year in succession, the fall in the volume of work was not much less. A further 165,000 workers lost their jobs. New jobs continued to be created in the services sector, which now employs almost 70% of all persons in work. However, the increase of just under ½% represents less than one-third of previous growth. The numbers employed in the trade, hotels and restaurants and travel sectors actually fell slightly for the first time in several years. Owing to the rising pressure on costs and profitability in the financial sector, a stop was put to the very rapid increase in staff numbers both here and at corporate service providers. This increase had stretched over many years and in some cases had reached growth rates of significantly more than 6%. Only providers of public and private services, which include not only administration but also education and health, continued to increase their workforce.

Number of vacancies declines

The cyclical downturn has also resulted in a substantial fall in the search for workers. Only 2.77 million vacancies were reported to the labour offices in the course of the year. That was almost 1 million fewer than in 2001. Advertisements in the daily newspapers have also shown another dramatic fall. While the decline in 2001 amounted to about one-third, there was a further reduction of up to 40% in some cases last year. Even if account is taken of the fact that, when advertising for staff, the business community is probably using newspaper

Labour market

Chart 18



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advertisements to an increasingly lesser extent and, instead, is having recourse to the internet, the decline is still extremely sharp.

Rise in unemployment

The reduction in the numbers employed in trade and industry played a significant role in the fact that the number of unemployed persons increased to 4.06 million on an annual average last year. That was about 210,000, or 5½%, more than in 2001. As a result, a large part of the reduction in unemployment, which had amounted to 535,000 persons between 1998 and 2001, was reversed. According to figures from the Federal Labour Office, 9.8% of the effective potential labour force (employed and unemployed persons) still had no chance of finding work; in 2001 9.4% were in this position. If calculated in line with the internationally approved definition, the unemployment rate amounted to 8.9% compared with 8.4% in 2001.

Labour market in state of flux

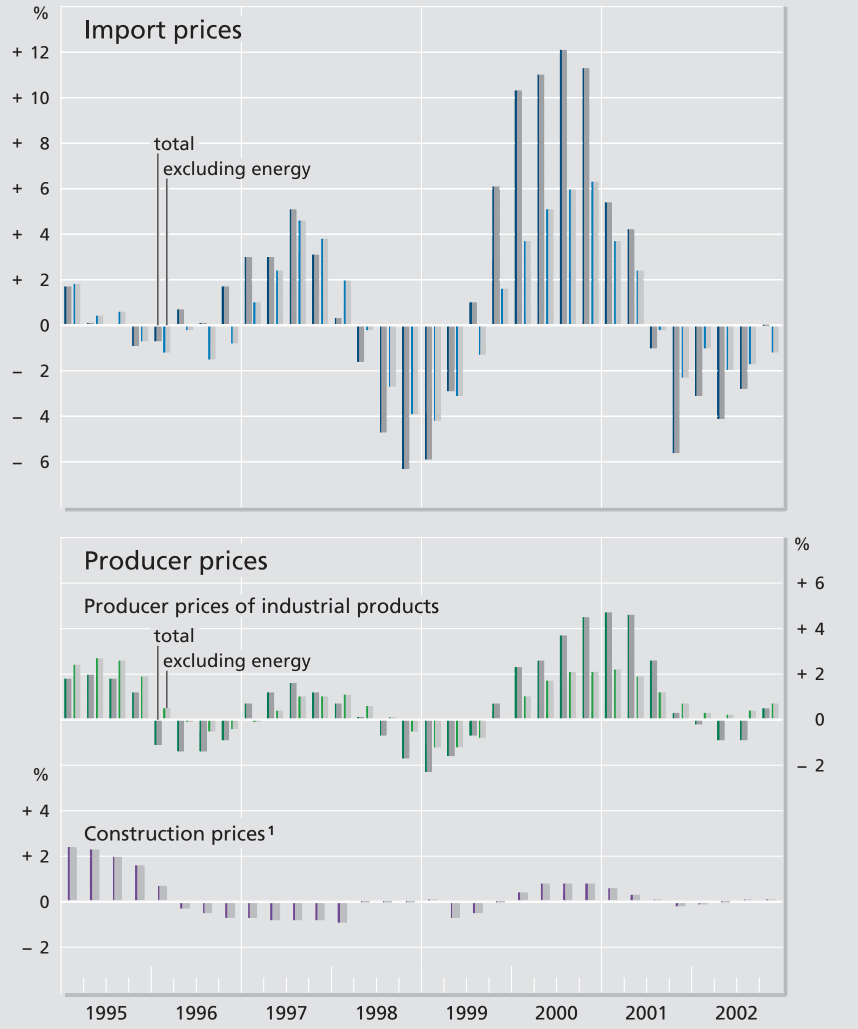
Nearly 7½ million persons registered as unemployed at the labour exchanges in the course of last year. Just under half of them had been in paid employment immediately before. The year-on-year increase in this group of unemployed amounted to 6%. Despite the cyclical downturn, somewhat more than 3 million persons were able to find employment again. The fact that this figure was almost as high as in the previous year has something to do with the prolonged use of extensive employment promotion measures. While restricted use was made of traditional job creation schemes and structural adjustment measures, other forms of assistance, not least the settling-in grants and bridging payments, were increased significantly.

Changes pertaining to non-employed persons also increased sharply. For example, there was a 5½% rise to approximately 3½ million in the number of persons who had not been in paid employment prior to registering as unemployed. Those deregistering rose, in turn, by just over one-tenth to very much the same number. According to the Federal Labour Office, one of the reasons for this increased movement was stricter use of the Job-AQTIV legislation, an act designed to get people back to work, and the launch last year of the "job placement offensive". As these new measures required the unemployed to show greater cooperation, the instances of deregistration became more frequent during an initial phase. In a second phase, however, not a few of these persons reregistered after a waiting period. Even so, this is likely to have had a beneficial effect on the overall level of unemployment.

Import and producer prices

Chart 19

Change from previous year, quarterly



1 Own calculations.

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Generally moderate consumer price increases ...

The living costs of individuals increased only moderately in 2002. A sharp rise in prices in January was followed by minor increases during the rest of the year. The year-on-year increase declined from 2.1% at the beginning of the year to 1.2% in December. The average rate of inflation was 1.4% compared with 2.0% in 2001.

... despite price leap at start of year

The price rise in January 2002, which was very large month on month at 1.0%, excluding package holidays and hotel and restaurant services, strengthened the belief which had already arisen in the course of 2001 that the introduction of euro banknotes and coins and the associated conversion of prices into euro would lead to a rise in consumer prices. In fact, almost half of the increased rate of inflation measured in January was due to higher taxes on energy, tobacco and insurance premiums. In addition, there were the effects of unusually cold winter weather, which temporarily increased the prices of seasonal varieties of fruit and vegetables, for example. These rose by 18% within a month. That was by far the steepest rise in ten years. After deducting the usual price increases at the beginning of the year (rents, for example, are frequently adjusted at that time), there remains a "residual" of only 0.1 to 0.2 percentage points that can be associated with the conversion of prices into euro.

Introduction of euro cash affects prices of services

The effects of the introduction of euro banknotes and coins were evident in only a few cost-of-living items, but these were all the greater for that. There were a fair number of sometimes large price changes in the case of a few services. Prices for hairdressers rose by an average of 1.9% compared with December 2001, for a car wash by 1.3%, dry cleaning by 2.5% and restaurants by 2.1%. Cinema tickets were 2.3% dearer. Such sharp rises from one month to the next are unusual. In the case of some of these services the price adjustments later in 2002 were somewhat smaller than usual, with the result that there was a partial compensation for the steep rise in January. Overall, the prices of services rose by 2.4% on an annual average.

Prices of foods and industrial goods

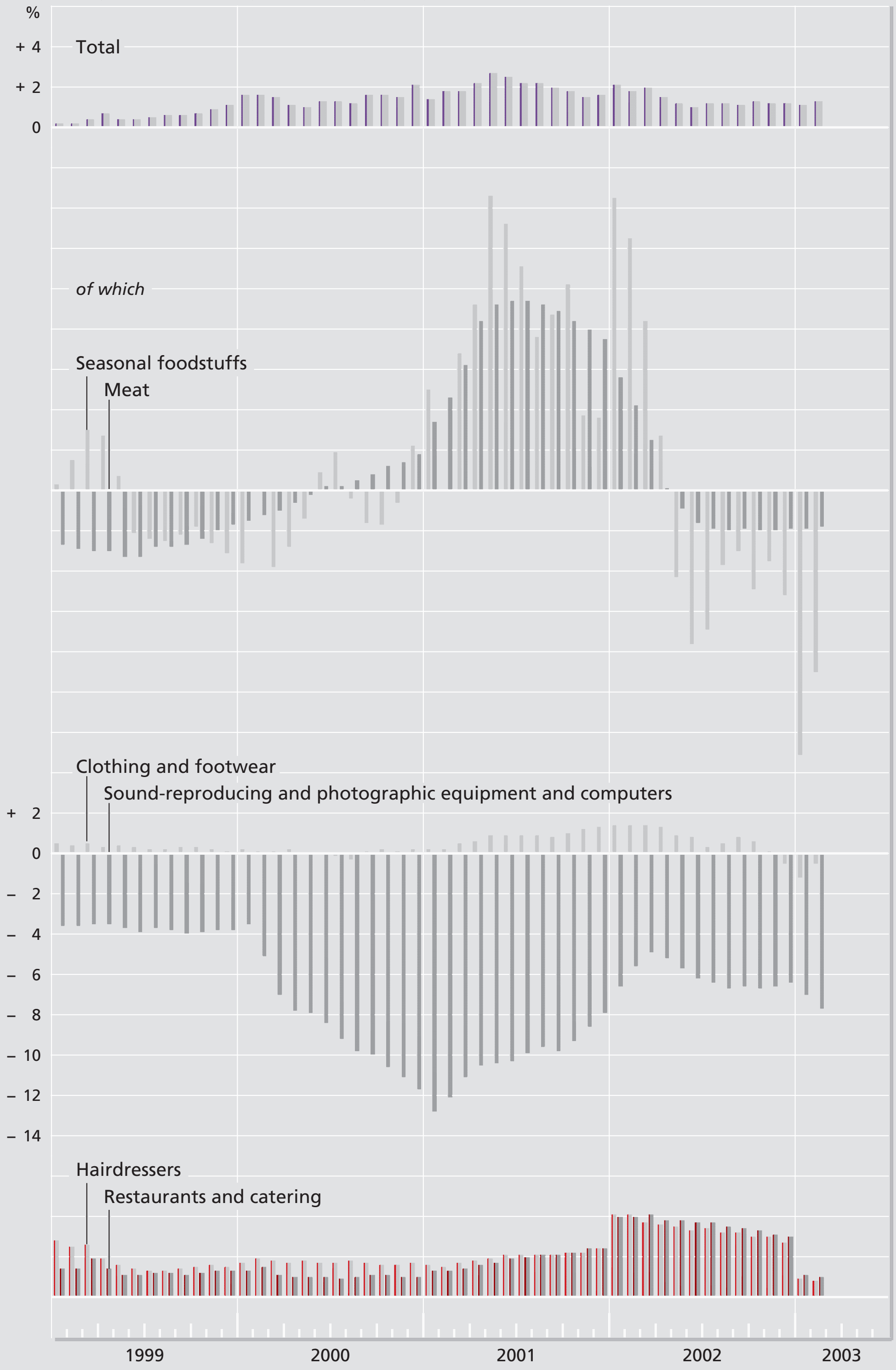
The prices of foods, which had already risen towards the end of 2000 and in 2001, increased in January 2002 by a seasonally adjusted 3¼% owing to weather-related crop failures but subsequently tended to decline again. The overall increase was 1.0% on an annual average. Much the same is true of industrial goods, even if the increases were not so pronounced. The price rises in the first few months of the year, which to a large extent were due to the increase in tobacco tax, were followed by price reductions from the second quarter onwards. Weak turnover in the retail trade as well as cheaper imported goods and a significant reduction in producer prices had a moderating effect on the prices of industrial goods. If the effects of the tobacco tax are included, industrial goods were 0.8% dearer than in 2001 on an annual average.

Rents rise more slowly

As in the previous two years, there was only a moderate rise in residential rents. They increased by no more than 1.4% on an annual average. This is a sign that the overall stock of dwellings is ample even if there are shortages in some conurbations. These are also a reason for regional variations. Whereas the increase in rents was above average in western Germany, it remained comparatively small in eastern Germany.

Consumer prices

Chart 20



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Energy prices

Consumer prices for energy remained virtually constant on an annual average. In 2001 these had risen at an above-average rate primarily as a result of tax increases, other administrative measures and the effects of higher oil prices on the prices of gas. Even if the annual average price of a barrel of Brent crude on the international markets was no lower than in 2001, the appreciation of the euro provided significant relief. Consequently, heating oil was actually more than 9% cheaper than in the previous year. In the case of gas the price reduction was more than 5½%, and the cost of heating for those in rented accommodation fell by almost 1%. Only electricity and fuel, which were affected by the fourth stage of the ecology tax, increased in price, namely by 4½% and 2¼% respectively.

Moderate price rises expected to continue

There are promising signs that the moderate price rises at the consumer level will continue in the current year. The rate of inflation was 1.3% in February, and the annual average rate could still be somewhat lower than in 2002. However, a fairly large fall is unlikely, the main reason being the renewed increase in taxes from 1 January 2003, especially in the case of energy. Even so, the generally favourable price scenario for 2003 could be impaired if international oil prices rise further and persist at a high level for a lengthy period. That would probably lead to a sharp increase in consumer prices.

Little risk of deflation in Germany

In view of the persistent economic weakness, continuing cyclical risks and growing structural and profitability problems in the banking system at a time when prices are rising only marginally, there are fears in some quarters that the general situation in Germany is so unstable that in the event of a negative shock the country could easily descend into a state of deflation with a subsequent acceleration of recessionary effects. If deflation is defined as a general price collapse in the sense that a lengthy decline in consumer prices is accompanied by a contraction in the circular flow of goods and finance, however, the present economic situation in Germany is not characterised by such a crisis scenario. Instead of falling prices there is a large measure of price stability, which is an important advantage with respect to further economic development. This is particularly true in the present situation where the burden of taxes and levies is constantly growing and unemployment is increasing. Stable prices preserve purchasing power and encourage competition; with regard to wage policy, stable prices also help to avoid conflict.

Success in maintaining stability depends on an appropriate monetary policy, increasing integration in the single European market, progress in deregulating the

Reasons for success of stability policy

goods markets and in privatising government-owned enterprises and price reductions that are achieved in ICT goods through technological innovation. The market power of many enterprises has declined. The pressure of international competition ensures that reduction in costs derived from technical progress is passed on increasingly in the price of the product (instead of being used to remunerate the factors of production). These fundamentals are now being augmented by cyclical weakness and cheaper imported goods. Furthermore, the ample provision of residential accommodation is curbing rents in many areas. All these factors suggest that the level of price stability that has now been achieved will be maintained in the foreseeable future. They are absolutely not an indication of a generally declining price level, however.

Differences between Germany and Japan

The analogy frequently drawn with the parlous state of affairs in Japan oversimplifies matters as far as the special causes and the dimension of the problem are concerned. For example, the deflation in Japan was preceded by the creation of a highly speculative bubble on the real estate markets, which ultimately brought the whole Japanese banking system with its traditionally low capitalisation into a critical situation. In Germany, by contrast, average real estate prices have remained largely stable, and the banking system – despite some difficulties – is not in danger. In Japan the main problem is a credit squeeze arising from the highly flawed intermediary function of the banks. In Germany the provision of credit is still guaranteed even if numerous banks now pay more heed than before to the increased risk of default and the declining creditworthiness of borrowers when granting loans. Another point is that in Germany, and in the euro area as a whole, the overall financial position of the corporate sector is not giving cause for concern despite the large differences in individual circumstances.

Price stability encourages recovery

Generally speaking, the risk of deflation in Germany is small. Rising prices for services, marked increases in pay and a less restrictive monetary policy do not indicate a declining price level. Nor does the behaviour of consumers and investors point to a wait-and-see attitude to buying and investing that has been triggered by the expectation of falling prices. The German economy has been in virtual stagnation for a relatively lengthy period, but the chances of recovery are, if anything, enhanced by the positive effect which the level of price stability achieved is having on purchasing power. A self-perpetuating downward spiral of prices and economic activity is expected neither by the markets nor by the major national and international forecasting institutions.

2 Foreign trade and payments at time of sluggish world economic growth

Export growth without momentum …

Given the sluggish growth in the world economy and the consequently insignificant expansion of export markets, German exports proved to be comparatively robust in 2002. Exports of goods increased by 2% in value.[1] Growth in real terms was almost exactly as high because there was little change in export prices year on year. Despite this moderate rise, exports therefore provided a stimulus to the German economy at a time of general economic uncertainty. However, the trend in German exports was fairly uneven during the year. For example, the marked revival at the beginning of the year was followed by a period of stagnation. Then came a very sharp increase in the third quarter, and finally a slight decline in the final quarter of the year. The preliminary foreign trade indicators such as the volume of orders received and export expectations did not point to any clear export trend either, with the result that the general economic uncertainty prevailing in Germany was ultimately nurtured from the export side, too. Exchange rate movements during the periods of appreciation in the spring of 2002 and again at the turn of 2002-03 undoubtedly played a part here. Generally speaking, however, the strength of the euro had no clearly identifiable detrimental effect on German exports; even so, there is normally a time lag before export deliveries respond to exchange rate movements. What probably did have a positive impact last year was the fact that Germany's price competitiveness has remained fairly favourable when compared over the long term; that applies both inside and outside the euro area. Accordingly, German exports in 2002 were largely determined by the cyclically-related demand situation in the various regions of the world. For example, exports to countries outside the euro area rose by 3% whereas sales of German goods inside the euro area rose by only 1%. While in earlier years German exporters recorded substantial gains in market share both within the euro area and elsewhere, they probably succeeded in 2002 in at least maintaining their market positions.

… and marked by uncertainty despite positive growth

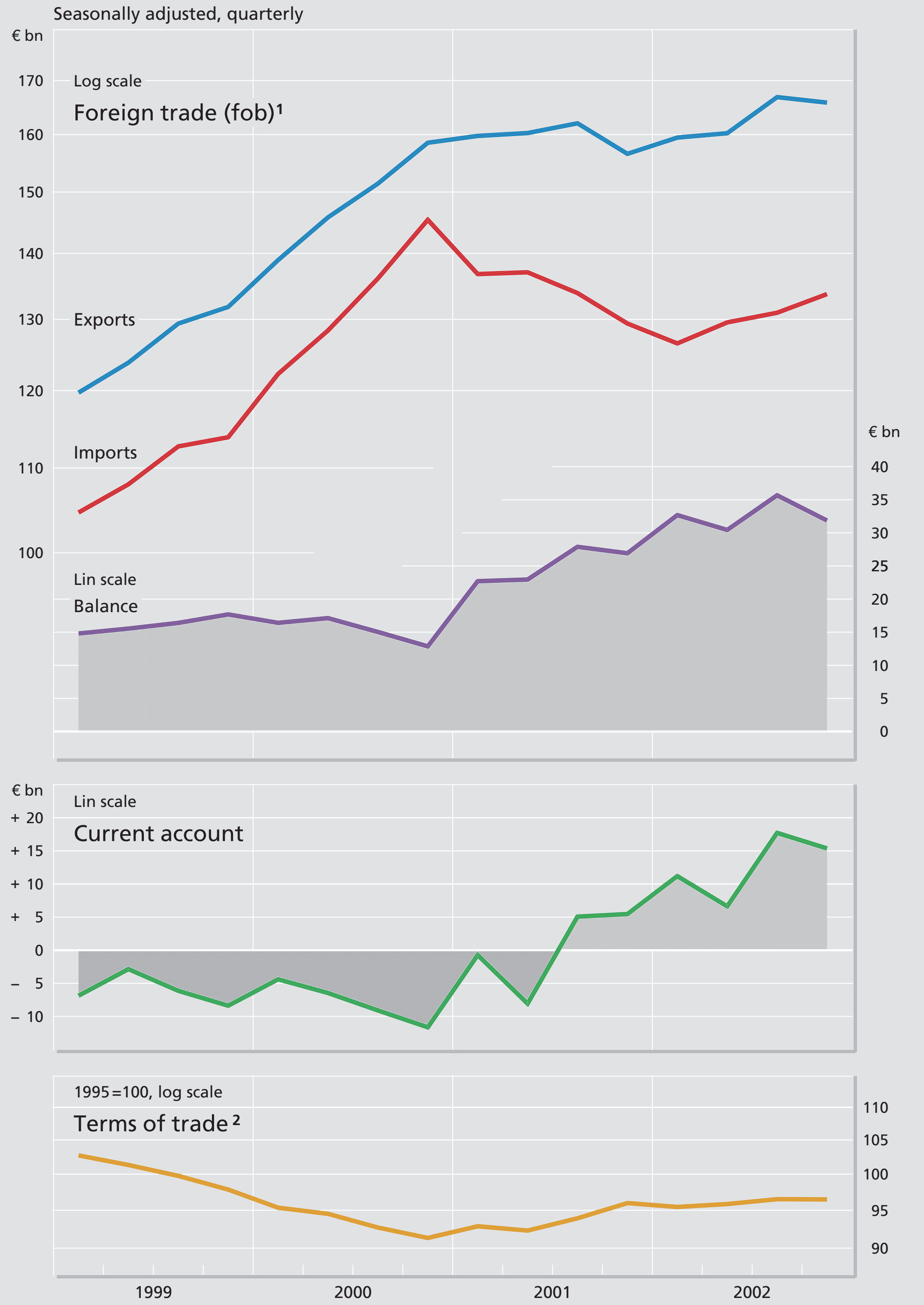
Imports marked by weak demand

In the case of imports of goods, by contrast, there was a marked decline of 3%. This was partly the result of price effects, but even after the elimination of the price-curbing effects of the euro's appreciation and the more favourable energy imports during extensive periods of the year imports of goods went down by ½%. This was primarily a reflection of the weak German economy, which never quite turned the corner in the course of the year owing to the generally uncer-

1 The data on trade in goods as a whole also contain supplementary trade items and are calculated on an fob/fob basis, ie without the freight and insurance costs payable on imports, which are shown under services.

Foreign trade and current account

Chart 21



1 Including supplementary trade items. — 2 Export price index in relation to the import price index.

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tain environment. Thus, German enterprises imported far fewer semi-finished products and capital goods. With the exception of the central and east European countries in transition, which are playing an increasingly important role in Germany's trade in goods, trading partners in all other regions felt the effect of weak German demand.

Much larger surplus on current account

Owing to the asymmetrical movements in exports and imports and the discernible improvement (of 2.3%) in the terms of trade, the foreign trade surplus again increased significantly. In 2002 the German trade balance ran a surplus of €130½ billion, which was approximately €30 billion more than in the previous year. At the same time, the deficit of €48½ billion on services was very much smaller than in 2001 (€62 billion). Although the fall of €1½ billion in the deficit on foreign travel was a contributory factor here, the primary reason for this was the change in insurance services and in the "other" services which comprise a broad range of items. There were also improvements in the other sub-balances in the field of invisible current transactions with non-residents. For example, net expenditure on cross-border factor income declined from €10½ billion in 2001 to €6½ billion in the year under review; and the balance on current transfers made to non-residents amounted to €26½ billion compared with €27½ billion in 2001. These developments resulted in a substantial improvement in the current account surplus for the second year in succession. In 2002 it amounted to almost €49 billion (or 2.3% of GDP) compared with €1 billion in 2001.

Financial transactions determined by uncertain world economic situation and Iraq crisis

The uncertainties surrounding the future development of the world economy, financial scandals in the United States and the worsening of the Iraq crisis meant that – as in the year before – cross-border capital flows to and from Germany in 2002 were comparatively small.

Net capital imports through portfolio investment

Germany's securities transactions with non-residents were determined in 2002 by the repeatedly changing economic and political framework. For example, net amounts of capital were exported during the first few months of last year whereas in the third and fourth quarters of 2001 substantial amounts of capital had flowed into Germany as a safe haven. Owing to the growing uncertainty about the future development of the world economy and the balance sheet irregularities, especially in the case of US enterprises, the capital flows then reversed abruptly early in the third quarter; large inflows of funds were recorded until well into the fourth quarter. Towards the end of the year another reorientation on the part of internationally operating investors – possibly as a result of the tax debate in Germany – again triggered a reversal in capital flows arising

Balance of payments

Table 6

€ billion

Item	1999	2000	2001	2002
I Current account	– 22.2	– 28.5	+ 1.0	+ 48.9
1 Foreign trade [1]	+ 66.6	+ 62.8	+ 100.7	+ 130.5
Exports (fob) [1]	509.7	596.9	637.3	650.9
Imports (fob) [1]	443.1	534.0	536.7	520.4
2 Services	– 55.3	– 60.6	– 61.8	– 48.4
of which				
Foreign travel	– 36.4	– 37.4	– 37.4	– 36.0
3 Factor income	– 8.4	– 2.4	– 10.4	– 6.7
of which				
Investment income	– 7.7	– 1.9	– 10.2	– 6.3
4 Current transfers	– 25.0	– 28.4	– 27.4	– 26.6
of which				
Net contributions to the EU budget [2]	– 13.4	– 15.0	– 12.3	– 10.9
Other official current transfers to non-residents (net)	– 4.0	– 4.2	– 4.7	– 4.9
II Capital transfers [3]	– 0.2	+ 6.8	– 0.4	– 0.2
III Financial account (net capital exports: –)	– 24.1	+ 36.9	– 18.2	– 78.7
1 Direct investment	– 50.5	+ 158.7	– 9.1	+ 14.3
German investment abroad	– 102.9	– 61.7	– 47.0	– 26.1
Foreign investment in Germany	+ 52.4	+ 220.4	+ 37.9	+ 40.4
2 Portfolio investment	– 9.3	– 155.8	+ 26.6	+ 37.0
German investment abroad	– 177.4	– 203.4	– 129.6	– 69.0
of which Shares	– 68.0	– 102.3	– 15.6	– 5.3
Bonds and notes	– 94.6	– 70.3	– 95.1	– 50.8
Foreign investment in Germany	+ 168.1	+ 47.6	+ 156.2	+ 106.0
of which Shares	+ 22.6	– 35.9	+ 88.6	+ 16.8
Bonds and notes	+ 97.6	+ 74.0	+ 81.2	+ 79.2
3 Financial derivatives	– 2.2	– 5.5	+ 6.3	– 0.5
4 Credit transactions	+ 40.3	+ 41.3	– 40.6	– 128.0
Credit institutions	+ 53.0	+ 13.8	– 76.3	– 102.2
of which Short-term	+ 60.4	+ 38.3	– 33.1	– 88.7
Enterprises and individuals	+ 40.5	+ 4.6	– 7.8	+ 4.1
of which Short-term	+ 38.7	+ 0.5	– 17.3	– 0.7
General government	– 3.6	– 19.4	+ 16.8	+ 5.5
of which Short-term	+ 5.1	– 17.9	+ 16.8	+ 5.4
Bundesbank	– 49.5	+ 42.4	+ 26.6	– 35.4
5 Other investment	– 2.4	– 1.9	– 1.3	– 1.5
IV Change in the foreign reserves at transaction values (increase: –) [4]	+ 12.5	+ 5.8	+ 6.0	+ 2.1
V Balance of unclassifiable transactions	+ 34.0	– 21.0	+ 11.6	+ 28.0

1 Special trade, according to the official foreign trade statistics, including supplementary trade items; imports excluding freight and sea transport insurance costs, which are included under services. — **2** Excluding collection expenses, EAGGF (Guidance Fund) and Regional Fund and other capital transfers, where identifiable. — **3** Including the acquisition/disposal of non-produced non-financial assets. — **4** Excluding SDR allocation and changes due to valuation adjustments.

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from portfolio investment. The interaction of the various factors at play resulted in net capital imports of €37 billion through portfolio investment in 2002 (compared with €26½ billion a year earlier).

German residents reluctant to invest abroad

German investors acquired foreign securities worth €69 billion in 2002. In terms of value this was much less than in the previous year (€129½ billion) when they had substantially restricted their foreign investment in the light of the increased uncertainty after the terrorist attacks in the United States. Even so, there was little change in the preferences of German investors. For example, they again concentrated their demand on foreign bonds and notes (€51 billion) while their investment in foreign shares and foreign investment certificates was comparatively light (€5½ billion and €7 billion respectively).

Foreign investment in Germany likewise declines

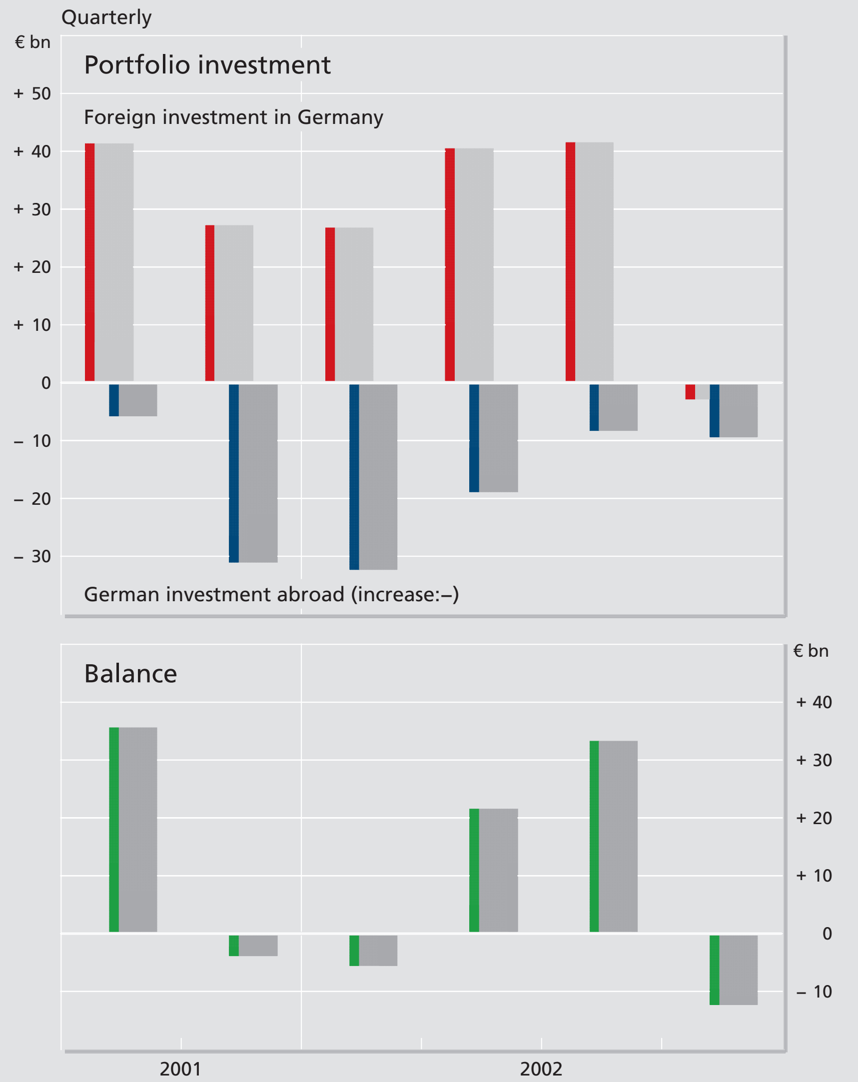
There was also a discernible decline in foreign interest in German securities (€106 billion in 2002 compared with €156 billion in 2001). This was due mainly to the fact that international investors sharply reduced their demand for German shares in view of the poor economic prospects in Germany (€17 billion compared with €88½ billion). A contributory factor here was probably the falls in share prices on the German share market, which were fairly sharp by international comparison. By contrast, foreign investor demand for German bonds and notes was fairly stable. At €79 billion, non-residents' net purchases of this paper was only slightly down on 2001 (€81 billion). The focus on German bonds at a time of pronounced uncertainty and widespread risk aversion is presumably due, firstly, to the high degree of liquidity and security enjoyed by Federal bonds, in particular, and by other German debt certificates with first-class ratings. Secondly, the shifts in interest and exchange rate patterns probably played a major role in investment decisions. For example, the interest rate disadvantage of ten-year Federal bonds compared with US Treasury paper turned into an advantage in the course of the year. Furthermore, the euro grew significantly in value, and this brought additional exchange rate gains to investors calculating in foreign currency. This was possibly also the reason why foreign investors again showed interest in German money market paper in 2002 (€10 billion) after selling this paper in net terms in 2001 (-€15 billion).

Foreign direct investment in Germany rises

There were also net capital imports (of €14½ billion) through direct investment in 2002 whereas a year earlier there had been net outflows of funds (€9 billion). Investment by foreign enterprises in Germany was somewhat higher, at €40½ billion, than in the previous year. This is striking in that the climate for cross-border investment had cooled down discernibly owing to the cyclical and

Financial transactions with non-residents

Chart 22



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stock exchange weaknesses worldwide. By contrast, German enterprises were restrained in their direct investment abroad last year. They provided their branches abroad with net funds amounting to only €26 billion compared with €47 billion a year before. The decline was partly due both to the fall in German enterprises' acquisitions of participating interests and to the large amounts of funds borrowed by German parent companies from their branches and subsidiaries abroad.

Net amounts of capital were imported through the statistically recorded non-securitised credit transactions of the non-banks. For example, German enter-

Net capital imports through credit transactions of non-banks…

prises and individuals repatriated about €4 billion net; a sharp reduction in balances held with foreign banks played a decisive role in this. In addition, the operations of general government resulted in inflows of funds amounting to €5½ billion net.

…and large exports through the banking system as a whole

The large incoming payments arising from the aforementioned current and financial transactions were reflected, as it were, in extensive capital exports through the non-securitised credit transactions of the banking system. For example, the external operations of German credit institutions resulted in outflows of funds amounting to €102 billion net as German banks sharply expanded their claims on foreign customers, in particular. As a result of those external transactions of the Bundesbank that are classified as credit transactions, there were further outflows of €35½ billion; in contrast to what had happened a year earlier, the Bundesbank accounts in 2002 reflected a large balance on the assets side that arose through the EU payment system TARGET.

Sharp rise in net external assets of the Bundesbank

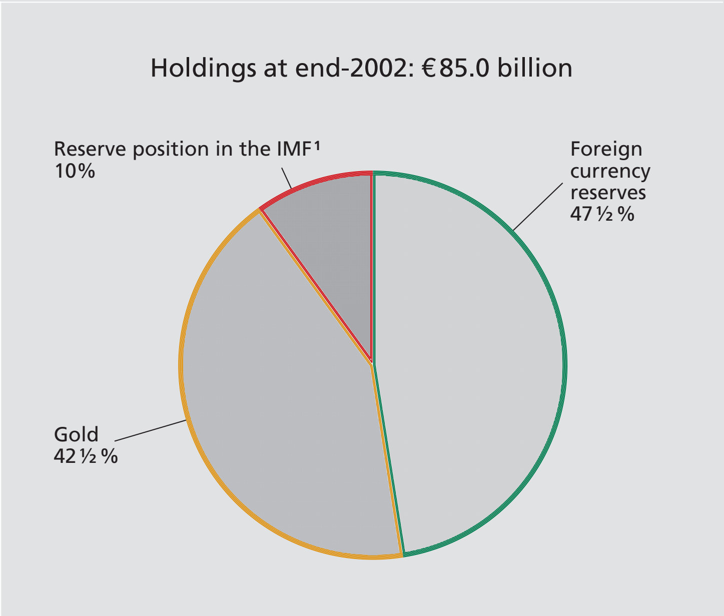
These outflows of funds were also the main reason for the sharp rise in the net external position of the Bundesbank last year. The external position rose from €67½ billion at the end of 2001 to approximately €95 billion at the end of 2002 whereas in 2001 it had declined by a comparable amount. The large balances in the TARGET system, which frequently change from being in credit to being in deficit and which are the reason for the fluctuation in the external position, are of a transitory nature and are not the result of deliberate intervention by the Bundesbank. Instead, they are a reflection of the closely interlinked cross-border payments transactions within the European System of Central Banks.

Breakdown of foreign reserves

The foreign reserves represent the bulk of the Bundesbank's external assets. At the end of 2002 the foreign reserves – valued at the stock market prices and exchange rates prevailing at that time – amounted to approximately €85 billion; this means that they were just over €8 billion below their previous year's level and had declined discernibly for the first time since the beginning of monetary union. However, if the revaluation losses arising from the weakness in the dollar are excluded, ie if the foreign reserves are calculated using the transaction values recorded in the balance sheet, the decline in these reserves was much less, at €2 billion. Even so, the foreign exchange holdings, which were primarily affected by the decline, amounted to €40½ billion at the end of 2002 and still account for the largest part of the foreign reserves (47½%). Monetary gold accounted for a further €36 billion (42½%) and the reserve position in the IMF (including the allocated special drawing rights) for €8½ billion (10%). In the

Foreign reserves of the Bundesbank

Chart 23



1 Including special drawing rights.

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case of the last two items mentioned the changes were comparatively small in 2002.

3 Tense situation of public finance

(a) Developments in 2002

Deficit ratio exceeds Maastricht ceiling

In January 2003 the Ecofin Council formally ruled that an excessive deficit exists in Germany. This was the consequence of the fact that in 2002 the general government deficit in Germany rose by almost 1 percentage point to 3.6% of GDP (as defined in the national accounts), thus exceeding the 3% ceiling set by the Maastricht Treaty, after having already doubled to 2.8% in 2001. Whereas the tax reform had been the main reason for the deterioration of public finance in 2001, the persistent economic slowdown and other temporary factors were the principal causes last year. By contrast, the structural deficit barely changed; additional burdens from child benefit, in particular, were offset by the effects of several increases in taxes and social security contributions and stringent budget management.

Taxes and social security ratio and expenditure ratio

The main reason for the increase in the deficit was the persistently weak revenue trend of general government. Despite the rises in excise taxes which entered into force last year and the higher contribution rates to the statutory health insurance funds, the taxes and social security ratio declined further in 2002; it fell to 41.4%, which was almost ¾ percentage point lower than in 2001. By contrast, the government expenditure ratio went up marginally (to 48.8%), after declining somewhat in 2001. Government spending rose by 2% (somewhat more sharply than in 2001) as a result of much higher labour market-related expenditure and the increase in child benefit.

Debt ratio likewise above reference value

The large deficit was additionally reflected in a sharp increase in government indebtedness. Since nominal economic growth was also weak, the debt ratio of general government rose to 60.8% last year. Thus the debt-to-GDP ratio again exceeded the reference value of 60% set by the Maastricht Treaty, after temporarily falling below this ceiling in the previous year thanks to the extraordinary redemptions arising from the UMTS proceeds.

Budget outturn in 2002

The general government deficit expanded by a similar margin when measured by the definition used in the financial statistics – which differs from that applied in the national accounts. Owing to continuing high privatisation proceeds and repayments of loans, however, the deficit as defined in the financial statistics amounted to an estimated €69 billion – or 3.3% of GDP – and was therefore again lower than the comparable figures defined according to the Maastricht Treaty. The combined deficit of central, state and local government rose by roughly €14 billion to around €61 billion. The Federal Government's budget gap of almost €33 billion was €11½ billion worse than in 2001. Its deficit also exceeded the amount projected in the original budget plan by €9 billion, although it was considerably lower than the estimate contained in the supplementary budget. Additional expenditure vis-à-vis the targeted total arose primarily from the substantial labour market-related burdens, which were mirrored in higher transfers to the Federal Labour Office and additional spending on unemployment assistance. But the collective deficit of the *Land* governments, too, rose vis-à-vis last year's already very high level by a further €5 billion to €32 billion. As was the case with the Federal budget – for which the exemption clause of Article 115 of the Constitution had to be invoked – numerous *Land* government budgets also overshot the permissible budgetary ceiling, ie net borrowing exceeded total self-financed investment expenditure. The financial gap in local government budgets (€4½ billion in 2001) is also likely to have increased last year; in many cases the administrative budgets were not covered by current rev-

General government as defined in the national accounts * — Table 7

Item	2000	2001	2002 pe	2000	2001	2002 pe
	€ billion			Year-on-year change		
				as %		
Expenditure	991.8	1,009.0	1,028.9	1.9	1.7	2.0
of which						
Social benefits	534.7	548.1	573.0	2.2	2.5	4.5
Compensation of employees	165.6	164.9	165.9	0.1	– 0.4	0.6
Intermediate consumption	78.5	81.6	84.3	2.1	4.0	3.3
Interest	68.2	67.8	67.2	– 1.0	– 0.5	– 0.9
Gross capital formation	37.0	35.8	33.7	– 2.1	– 3.3	– 5.9
Memo item						
Old-age provision 1	255.9	263.7	273.0	3.2	3.1	3.5
Health 2	138.6	141.7	145.9	3.2	2.2	3.0
Labour market 3	63.9	65.7	71.6	– 5.4	2.7	9.0
Revenue	963.7	951.5	952.7	2.2	– 1.3	0.1
of which						
Taxes	511.7	488.3	485.0	4.3	– 4.6	– 0.7
Social security contributions	378.5	383.6	388.7	0.8	1.3	1.3
				in € billion		
Balance	– 28.0	– 57.5	– 76.2	1.7	– 29.5	– 18.7

* In accordance with ESA 95, including customs duties, the EU's share in VAT revenue and EU subsidies which have no effect on the balance. Figures for 2000 do not include UMTS proceeds. — 1 Expenditure of the statutory pension insurance fund and on civil servants' pensions. — 2 Expenditure of the statutory health insurance fund and on government assistance towards civil servants' medical bills. — 3 Expenditure of the Federal Labour Office and on unemployment assistance.

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enue and had to be financed through greater recourse to bridging loans. By contrast, the special funds achieved a surplus of €9 billion (€4 billion more than in 2001) thanks to the increase in the Bundesbank's profit. The social security funds ran up a larger deficit (-€8 billion) than in 2001. The deficit of the statutory pension insurance fund, in particular, widened considerably; its fluctuation reserve fell below the required minimum level, even though it had already been lowered to 0.8 month's expenditure. Despite the marked rises in contribution rates, the statutory health insurance funds recorded a deficit on a par with that sustained in 2001.

Further decline in tax revenue

The revenue trend of central, state and local government was marked by a further decline in tax receipts of just over 1%.[1] The overall tax ratio receded further (by 0.6 percentage point to 20.9% as defined in the government's financial statistics), after having already decreased sharply in 2001 as a result of the tax reform. The revenue figure targeted in the comparable official estimate from autumn 2001, on which the budget plans were largely based, was massively undershot by €25 billion (or just over 1% of nominal GDP). Besides the per-

1 According to preliminary results, which contain only an estimate for local authority taxes.

Record of general economic and fiscal policy measures

1 January 2002
A number of fiscal and social policy measures come into effect. They include the pension reform, involving the introduction of measures to promote private pension plans, the further improvement of family-related benefits, the fourth stage of the "ecological tax reform", the raising of insurance tax and tobacco tax and further changes in business taxation.

31 January 2002
In its Annual Economic Report 2002, the Federal Government expects that global economic expansionary forces will gain the upper hand in the course of the year. Against that backdrop, business activity in Germany, too, should gradually pick up. Real GDP is forecast to grow by an annual average of around ¾%.

12 February 2002
The Ecofin Council refrains from holding a vote on whether to issue an "early warning" to Germany, as recommended by the European Commission, pursuant to the Stability and Growth Pact, following the Federal Government's pledge to take due account of the concerns reflected in the Commission's recommendation. It promises to seek to comply with the 3% deficit ceiling in 2002 by intensively monitoring the implementation of the budgets at all levels of government. The Federal Government promises to avoid taking measures that would burden the budget and to use any budgetary leeway available for cutting the deficit. In addition, it reaffirms that, in line with its previous commitments, a budgetary position close to balance will be achieved by 2004.

6 March 2002
The Federal Constitutional Court declares the divergent method of taxing general state pensions and civil servants' pensions to be incompatible with the principle of equality pursuant to Article 3 of the Constitution and orders Parliament to devise a new arrangement, which is to enter into force by the beginning of 2005 at the latest.

21 March 2002
At a special meeting of the Financial Planning Council, the Federal Government and *Land* governments acknowledge their respective responsibilities regarding the commitments arising from the European Stability and Growth Pact and reaffirm the fiscal objective of a balanced budget for their tiers of government. A corresponding amendment to the Budget Principles Act is to come into effect during the current legislative period, instead of 2005. In addition, it is decided that, in order to meet the obligations of the Stability and Growth Pact, spending by the Federal Government is to be reduced by an average of ½% in the years 2003 and 2004, while the expenditure growth of state and local government is to be limited to 1%.

16 May 2002
The official tax estimate revises revenue expectations for 2002 downwards by almost €12 billion vis-à vis the comparable November forecast. A number of federal states react by freezing their budget. Besides Berlin, Saxony-Anhalt adopts a budget with a level of net borrowing which is kept within the bounds of the Constitution only by declaring that it serves to avert a disruption of the overall economic equilibrium.

19 June 2002
The Federal Cabinet adopts the draft Federal budget for 2003 involving total expenditure of €246.3 billion, which is 0.5% below the amount budgeted for in 2002. The projected deficit amounts to €15.9 billion and is €7.8 billion lower than in the budget for 2002. According to the medium-term financial plan, which is presented at the same time, the increase in expenditure between 2004 and 2006 is to be limited to an annual average of 0.4%, with the increase focusing on the year 2006 (following a further decrease in spending by 0.5% in 2004 and a flat level in 2005). At the same time, the objective of achieving a balanced Federal budget by 2006 is reaffirmed.

16 August 2002
The Commission for Promoting Modern Labour Market Services ("Hartz Commission") presents an expert opinion to the Federal Chancellor in which various measures to reduce unemployment are proposed.

26 August 2002
The Federal Cabinet adopts the Flood Victim Solidarity Act under which a "Reconstruction Aid" Fund with a volume of up to €7.1 billion is set up to finance aid to the flood victims in eastern and southern Germany. The funds are to be raised by postponing the tax relief measures envisaged for 2003 to 2004 and by temporarily raising the corporation tax rate in 2003 by 1.5 percentage points to 26.5%.

16 October 2002
Following the German parliamentary elections, a number of measures are outlined in a coalition agreement which are aimed, *inter alia,* at closing the financial gap that has become apparent in the Federal budget for 2003 relative to the earlier draft. They comprise savings of €7½ billion on labour market-related expenditure and the reduction of various tax subsidies, with the resultant additional revenue expected to reach €7 billion in 2003 (more than €4 billion of which is to accrue to the Federal Government) and to increase to €22 billion by 2006. The objective of achieving a balanced budget by 2006 is reaffirmed.

6 November 2002
The Federal Cabinet adopts the draft Act Continuing the Ecological Tax Reform which, in particular, raises the tax on natural gas and curtails the benefits hitherto granted to the producing and agricultural sectors under this reform. This is to result in additional revenue for the Federal Government of almost €1½ billion per annum from 2003 onwards. The Federal Government also adopts a draft Act to Stabilise Contribution Rates under which the statutory health insurance institutions are to be afforded relief in 2003 totalling almost €3 billion – especially via higher discounts for pharmaceuticals and budget freezes for medical services providers. In addition, the minimum amount defined for the fluctuation reserve in the statutory pension insurance scheme is reduced further, and the maximum level of earnings subject to contributions to the statutory pension and unemployment insurance schemes is raised.

15 November 2002
In its Annual Report 2002-03, the German Council of Economic Experts notes that previous efforts to achieve the aims of full employment and adequate economic growth have fallen well short of the target. It therefore proposes a comprehensive reform programme to lastingly strengthen economic momentum. A core proposal concerns the reform of the labour market. Besides boosting demand for labour and increasing labour market flexibility, key elements of the reform include reducing the reservation wage level and extending the low-wage sector. Aggregate output, which in 2002 showed only tentative signs of recovery, will grow only moderately in 2003,

Record of general economic and fiscal policy measures

(continued)

too. Annual average growth is likely to reach merely 1%. Such a development will not ease the labour market. Instead, employment will again decrease slightly (-0.2%), and the number of registered unemployed will increase to an annual average of 4.2 million.

20 November 2002
The Federal Cabinet adopts a draft supplementary budget for 2002 and a revised draft budget for 2003. According to the new plans, the deficit run up by central government in 2002 is put at €37.3 billion, which is €13.5 billion more than previously estimated; of this, €8.5 billion is due to tax shortfalls (less the lower transfers to the EU) and €5 billion to labour market-related additional spending. Since net borrowing, at €34.6 billion, exceeds the amount envisaged for investment, the exemption clause stipulated in Article 115 of the Constitution has to be invoked. For 2003, the original deficit estimate of the Federal Government is revised upwards by €3.4 billion to €19.3 billion. The extra burdens resulting from additional tax revenue shortfalls of almost €9 billion and from labour market-related additional spending of €6½ billion are to be largely offset by savings of just under €6 billion on unemployment assistance and at the Federal Labour Office, by additional receipts of €3 billion from the planned reduction of tax subsidies and by other savings not provided for in the original draft budget. The Federal Government also adopts a draft Act Reducing Tax Subsidies under which the – meanwhile modified – second part of the tax package included in the coalition agreements (which requires Bundesrat approval) is to be implemented. The resultant additional receipts for central, state and local government are expected to amount to €3½ billion in 2003 and to increase to almost €17 billion by 2006.

18 December 2002
The Federal Government presents an updated stability programme which, after a marked overshooting of the ceiling set by the Maastricht Treaty in 2002 (3¾%), envisages cutting the general government deficit ratio to 2¾% in 2003 and eliminating it altogether by 2006. To this end, the general government spending ratio is to be reduced by 4 percentage points (to 44½%) in the four years to 2006. The debt-to-GDP ratio, following a further rise of ½ percentage point to 61½% in 2003, is projected to decline by 4 percentage points to 57½% in 2006. This is based on assumed real economic growth of 1½% in 2003 and 2¼% in each of the following years.

20 December 2002
The First and the Second Act Promoting Modern Labour Market Services ("Hartz Acts") pass the Bundestag and Bundesrat. From 1 January 2003 onwards, unemployed persons are to be placed with enterprises *inter alia* through new Personnel

Service Agencies and are to be helped to find a new job faster through earlier registration with the labour office and a tightening of the rules governing jobs which the unemployed can reasonably be expected to accept. The preconditions for claiming unemployment assistance are tightened up. Moreover, the earnings limit for low-paid part-time work (mini-jobs) is raised, a scale of rising social security contribution rates is introduced for monthly incomes between €400 and €800, and employment of older employees and transition to self-employment are promoted.

1 January 2003
A number of fiscal policy measures come into effect. They include the last stage of the "ecological tax reform", the second stage of the tobacco tax increase, the temporary raising of the corporation tax rate, the curtailing of existing subsidies under the "ecology tax" provisions, an increase in the contribution rate to the statutory pension insurance scheme by 0.4 percentage point to 19.5%, and a marked raising of the income ceiling for paying contributions to the statutory pension and unemployment insurance schemes.

9 January 2003
The social partners in the public sector agree on a wage settlement that runs for 27 months. It contains an increase of 4.4% in negotiated wages and salaries over the entire period, with an additional gradual adjustment of earnings in eastern Germany to west German levels by the end of 2009 at the latest, plus various counterfinancing measures. The Federal Ministry of Finance puts the additional cost for public sector budgets in 2003 at €2.5 billion.

14 January 2003
According to the preliminary outturn, the deficit recorded in the Federal budget for 2002 amounted to €32.7 billion, which was €4.6 billion below the amount provided for in the supplementary budget. This was due to additional tax receipts of €1.3 billion and lower expenditure of €3.2 billion, with the rise in labour market-related spending having been more than offset by an undershooting of other budget appropriations, especially for interest payments and guarantees.

21 January 2003
The Ecofin Council, acting on a recommendation from the European Commission, formally concludes that an excessive deficit exists in Germany. In a recommendation addressed to Germany, the Council calls for the excessive deficit to be eliminated as quickly as possible. This requires, in particular, stringent budget management and the implementation of the fiscal consolidation measures announced for 2003, amounting to 1% of GDP. Germany is given a time limit of four months, pursuant to the Stability and Growth Pact, to fulfil these requirements. If individual measures are not implemented, they must be replaced by others so that the overall consolidation volume is preserved.

24 January 2003
In its Annual Economic Report, the Federal Government expects that economic activity will pick up above all in the second half of 2003. Taking the year as a whole, however, aggregate output is unlikely to grow by more than 1% given the unfavourable performance at the start of the year. For the labour market, the very low rate of economic growth will cause the number of unemployed to rise further in 2003 to an annual average of 4.2 million.

17 March 2003
The Commission charged with reviewing the tax treatment of contributions to and income from retirement pensions presents its expert opinion which, in particular, advocates a switch, following a lengthy transition period, to taxing statutory pensions at the benefits stage.

General government finance

Table 8

Item	2000 pe 1	2001 pe	2002 pe	2000 pe	2001 pe	2002 pe
	€ billion			Year-on-year change		
Central, state and local government				in %		
Expenditure	594.8	601.0	606.5	0.3	1.0	1
of which						
Central government	264.5	260.9	271.5	– 0.7	– 1.4	4
State government	250.9	256.5	257.5	1.8	2.3	0.5
Revenue	562.6	553.9	545.5	– 0.6	– 1.5	– 1.5
of which						
Taxes	467.3	446.2	441	3.1	– 4.5	– 1
				in € billion		
Balance	– 32.2	– 47.0	– 61	– 5.4	– 14.7	– 14
of which						
Central government	– 23.9	– 21.1	– 32.5	2.3	2.8	– 11.5
State government	– 8.6	– 26.6	– 32	– 0.0	– 18.0	– 5.5
Social security funds				in %		
Expenditure	434.1	448.4	464.5	2.0	3.3	3.5
Revenue	434.1	444.5	456.5	1.2	2.4	2.5
				in € billion		
Balance	– 0.0	– 3.9	– 8	– 3.5	– 3.8	– 4
of which						
Statutory pension insurance fund	0.3	– 0.9	– 4.5	– 4.3	– 1.2	– 3.5
Statutory health insurance fund	– 0.1	– 2.9	– 3	0.7	– 2.8	– 0

1 Figures do not include UMTS proceeds (€50.8 billion).

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sistent economic slowdown, this was also attributable to the temporary effects arising from the previous tax reform. Turnover tax yielded ½% less than in 2001, primarily because of lower retail trade turnover; it appears that no significant additional revenue was yielded either by the measures to combat tax evasion. Wage tax receipts likewise decreased somewhat; even before deducting the increased child benefit, they rose only marginally as a result of the weak growth of gross wages and salaries. Although, in contrast to 2001, corporation tax receipts were positive again last year, this improvement was smaller than the arithmetical increase implied by the non-recurrence of the previous year's exceptionally high profit distributions. Besides the continued unfavourable profit situation, this was caused by sizeable refunds for 2001, being the last year for which corporations could claim tax write-downs on their participating interests. Receipts from trade tax and assessed income tax were lower than in 2001 and considerably lower than the expectations, too.

Social security contributions and other revenue

The growth of social security contributions was likewise adversely affected by the continuing macroeconomic sluggishness. Despite the rise in contribution rates in the statutory health insurance funds contribution receipts grew relatively weakly by 1½%. Of the other items of general government revenue, the

Bundesbank's profit, in particular, rose, whereas privatisation proceeds failed to match their high prior-year level.

Somewhat faster expenditure growth

The expenditure of central, state and local government rose last year by around 1%. Transfers to the social security funds again increased sharply, fuelled by the fact that a growing share of pensions is now financed out of general taxation and by the poorer labour market situation. The latter was also the main reason for the increase in transfers to households. In the case of personnel expenditure, further savings arose from the decline in the size of the public sector workforce, although the downsizing was not as pronounced as in previous years. Interest payments fell marginally owing to the lower interest rate levels and public construction investment was curbed considerably in the wake of the cost retrenchment policy pursued notably by local government. The spending of the social security funds showed a further significant rise of 3½%. This was due to higher payments for unemployment benefits and renewed sharp rises in expenditure of the statutory pension insurance fund and sections of the statutory health insurance funds. On balance general government expenditure grew by an estimated 1½%.

(b) Further outlook and fiscal policy requirements

Fiscal policy facing major challenges

German fiscal policy is currently facing major challenges. It must develop a clear and reliable perspective for the consolidation of public finance in order to reduce the excessive government deficit as quickly as possibly – not least with regard to Germany's European commitments – and to achieve a balanced general government budgetary position in the medium term. The consolidation measures should be designed to be as conducive to stimulating growth as possible. Hence tax policy should avoid burdening the investment climate. In addition, fundamental reforms are required to strengthen the longer-term conditions for growth and employment – and also to reinforce the prospects of consolidation. In particular, it is necessary to markedly improve the economic incentive structures and to lower non-wage labour costs in Germany – which are very high also by international standards.

Consolidation measures for 2003

A significant step towards consolidation is required already this year in order to keep the deficit ratio below the 3% ceiling and to terminate the excessive deficit procedure which has been initiated against Germany. It is therefore right that the deficit ratio is to be reduced by 1 percentage point according to the updated stability programme put forward in December. In its Annual

Economic Report, the Federal Government reaffirmed its intention not to exceed the 3% ceiling this year, even though the economic outlook has deteriorated somewhat vis-à-vis the expectations from autumn. This objective can be achieved if the decisions taken by the government after the German parliamentary elections in September 2002 are implemented in full and supplemented by stringent budget management at all levels of government – as laid down in the decisions of the Financial Planning Council. However, it is likely that the Act to Reduce Tax Subsidies – which, besides correctly reducing subsidies and tax breaks, also includes some cuts that will negatively affect business investment – will be amended considerably in the further stages of the parliamentary process. In order to fulfil the European commitments, it is essential that other measures are introduced to offset any revenue shortfalls which may arise if parts of the tax package are voted down. If the consolidation measures approved for this year are implemented to their full extent, it would be acceptable to tolerate any additional budgetary burdens resulting from a further weakening of the overall economic momentum and to allow the automatic stabilisers to take effect accordingly.

Sharp rise in the levy burden this year

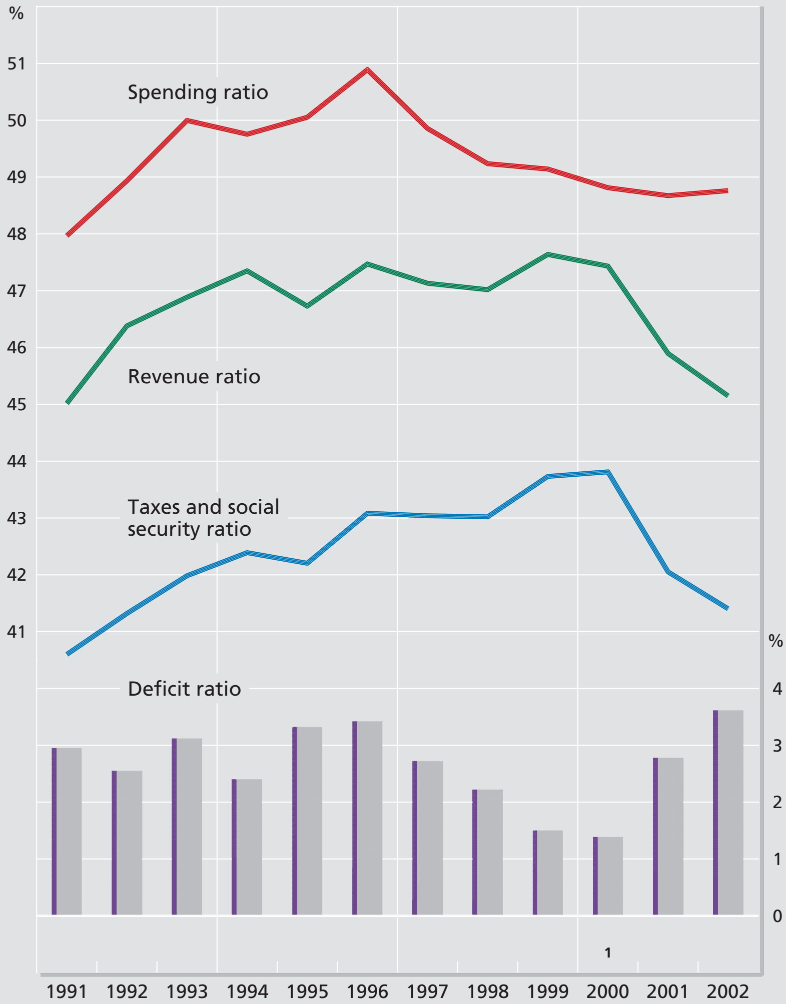
Following a decline in the taxes and social security ratio in the past two years, consolidation is to be achieved in 2003 primarily via an increase in the levy burden. Firstly, the tax ratio is set to rise by around ½ percentage point, according to current plans. Secondly, social security contributions will also have a stronger impact following the increases at the start of this year in the contributions rates to the statutory pension insurance fund and many health insurance institutions coupled with the raising of the maximum level of earnings subject to contributions. The combined taxes and social security ratio could consequently go up by around 1 percentage point this year compared with 2002. With regard to expenditure, the Federal Government and the *Land* governments have reaffirmed their intentions in the Financial Planning Council to keep within the limits agreed in March last year, which envisage a decrease of ½% in Federal Government spending in both 2003 and 2004 and an increase of no more than 1% in the expenditure of the *Land* governments (including their local authorities). The expenditure growth of the social security funds may be slowed by the savings which the Federal Labour Office and the statutory health insurance funds intend to make.

Greater consolidation efforts needed on the expenditure side

Over the next few years, greater consolidation efforts will have to be made on the expenditure side by all levels of government in order to achieve a budgetary position that is balanced in the medium term – as laid down by the European

General government fiscal ratios* Chart 24

As a percentage of GDP



* As defined in the national accounts. — **1** Excluding the proceeds from the UMTS auction.

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Stability and Growth Pact – without weakening the basis for economic growth by further raising taxes and social security contributions. Against this background, the objective of the updated stability programme to achieve the required deficit reduction by 2006 by lowering the government expenditure ratio by 4 percentage points (to 44½%) is to be welcomed. Such a stringent spending policy will inevitably require an ongoing limitation of expenditure on personnel, which in turn necessitates a critical review of the present scope of government activity and the pruning of the current dense web of regulations. It is also necessary to define the targets of general government transfers more precisely and to accelerate the reduction of subsidies – also with regard to macroeconomic allo-

Indebtedness of central, state and local government Table 9

€ billion

Item	2001	2002 pe	2001	2002 pe
	Level at year-end 1		Year-on-year change 2	
Loans against borrowers' notes	435.7	422.5	– 8.5	– 13.5
Securities	779.0	846.5	+ 56.3	+ 67.5
Other debt	9.2	8	– 35.4	– 1
Total indebtedness	1,223.9	1,277	+ 12.5	+ 53
Federal Government 3	701.1	725.5	– 14.7	+ 24.5
Land governments (western)	305.8	328.5	+ 23.4	+ 23
Land governments (eastern)	58.8	63	+ 3.1	+ 4.5
Local authorities (western) 4	82.2	84	+ 0.8	+ 1.5
Local authorities (eastern) 4	17.0	17	– 0.0	– 0
"German Unity" Fund	39.6	39.5	– 0.8	– 0
ERP Special Fund	19.2	19.5	+ 0.8	+ 0
Indemnification Fund	0.3	0.5	+ 0.1	+ 0

1 In the definition relevant for compliance with the EMU convergence criterion, government indebtedness comes to €1,233 billion (2001) and €1,283 billion (2002). — **2** The change in the debt level differs from net borrowing, since it includes the assumption of old debt and transfers of items previously included in the general government accounts. — **3** Including the off-budget special funds not shown separately here. — **4** Including municipal special-purpose associations.

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cation functions. Finally, there is a considerable need to reform the system of social benefits, particularly in the field of social security, with a view to lowering non-wage labour costs. As a general principle, fiscal policy should be geared over the next few years to combining the required deficit reduction with a strengthening of individual responsibility.

IV European and international cooperation

1 European integration

(a) Coordination of fiscal and economic policies

More flexible time frame for balancing budgets

Sound public finances in every country participating in European monetary union (EMU) are a cornerstone of the single currency's desired stability. The "Broad Economic Policy Guidelines" of June 2002 laid down that the EU member states were to achieve a medium-term balanced budgetary position as set forth in the Stability and Growth Pact (SGP) by the year 2004 at the latest, were to ensure sound financing of any planned tax cuts and, moreover, were to align their public budgets with the long-term consolidation requirements. However, in the latter part of 2002, it became apparent that initial hopes for a clear upturn in economic activity would remain unfulfilled and that it would, therefore, be more difficult to achieve the envisaged consolidation targets. As a result, in October 2002, the Eurogroup finance ministers with the support of the ECB Governing Council accepted an initiative put forward by the European Commission with the aim of securing further progress in fiscal consolidation without setting a new target date. The euro-area countries which have not yet achieved a medium-term balanced budgetary position undertook to reduce their structural budget deficits in relation to GDP by at least ½ percentage point per year. France alone insisted on the terms of this agreement not already being met in 2003.

Expansionary effects of automatic stabilisers and discretionary fiscal loosening

According to the SGP, the EU member states are to submit updated stability or convergence programmes between October and December every year. The Ecofin Council then examines whether these programmes are in line with the Broad Economic Policy Guidelines and the SGP. During the most recent round of examinations, the Ecofin Council established that public finance developments in the member states were for the most part more negative in 2002 than had been expected. In that year, only six countries had budgetary positions which were close to balance or in surplus and the combined budget deficit of all the EU member states – at 1.9% of GDP – was around 1 percentage point higher than in 2001. This made 2002 the second consecutive year in which the budgetary positions of the EU member states as a whole had deteriorated. The automatic stabilisers were one reason for this development. In a number of countries, including France and Italy, there was also a deterioration in the structural budgetary position. Therefore, it was not possible to further reduce the outstanding government debt ratio in the EU in 2002.

Excessive deficit procedure initiated against Portugal and Germany and early warning given to France

In February 2002, Germany and Portugal both managed to avoid an early-warning procedure recommended by the Commission pursuant to the SGP by undertaking to ensure that the reference value for the budget deficit would not be exceeded in 2002. However, in September 2002, the newly-elected Portuguese government reported an ex post deficit for 2001 of 4.1% of GDP. Moreover, in its autumn forecast of November 2002, the European Commission predicted a German government deficit of 3.8% of GDP in 2002. As a result, it initiated an excessive deficit procedure in both cases. The Ecofin Council consequently acknowledged the exist-

Planned fiscal developments according to the updated stability or convergence programmes of the EU member states

Table 10

Programme/country	Year in which the programmes will end	Fiscal balance as % of GDP		Gross debt as % of GDP	
		2002	Final year of the programme	2002	Final year of the programme
Stability programmes (euro-area countries)					
Austria	.	.	.	.	.
Belgium	2005	0.0	0.5	106.1	93.6
Finland	2006	3.8	2.8	42.5	40.7
France	2006	– 2.8	– 1.0	58.7	57.0
Germany	2006	– 3¾	0	61	57½
Greece	2006	– 1.1	0.6	105.3	87.9
Ireland	2005	– 0.3	– 1.2	34.1	34.9
Italy	2006	– 2.1	0.1	109.4	96.4
Luxembourg	2005	– 0.3	– 0.1	5.1	2.9
Netherlands	2006	– 0.7	0.1	51.9	45.3
Portugal	2006	– 2.8	– 0.5	58.8	52.7
Spain	2006	– 0.2	0.2	55.2	46.9
Convergence programmes (other EU member states)					
Denmark	2010	1.5	2.2	43.9	26.0
Sweden	2004	1.7	1.6	53.6	49.3
United Kingdom 1	2007	– 1.8	– 1.6	37.9	39.2

Sources: National stability and convergence programmes. — **1** Fiscal year beginning on 1 April.

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ence of an excessive deficit in Portugal on 3 October 2002 and in Germany on 21 January 2003. Portugal and Germany are, therefore, required to reduce their excessive budget deficits to a level below the reference value by no later than 2003 and 2004 respectively. Furthermore, in January 2003, the Council gave France an early warning in light of a further increase in French budgetary problems projected for the current year. In March 2003, it emerged that the French government deficit in 2002 had already amounted to 3.1% of GDP.

Unconvincing demands for increase in scope of fiscal policy

In March 2002, the European Council asked the Commission to present recommendations for improving economic policy coordination in time for the Spring European Council of 2003. In November 2002, the Commission therefore published proposals aimed at a modified implementation of the Stability and Growth Pact. These proposals contained justified requests, which could give greater impetus to fiscal policy consolidation. For example, it was requested that a pro-cyclical budget policy (which squanders the opportunity of less painful budget consolidation during an economic upswing) be avoided in future and that countries with a very high debt be monitored more closely. At the same time, however, the Commission complied with calls for a relaxation of the Stability Pact. These calls had come from various sources in the course of the year in view of existing or imminent breaches of the SGP provisions. The critics of the Pact base their views not only on the desire for greater scope in demand management, but also advocate exempting credit financing for general government investment from the Pact's rules as well as other special concerns. The Commission accommodated these views by recommending that, under certain conditions, temporary discretionary divergences from the target of a balanced budgetary position should also be allowed. The Bundesbank objected to this line of thinking because, in its view, the current EU fiscal policy rules provide governments with sufficient room for manoeuvre even during bad economic times, although this must first be created through successful consolidation. In the Bundesbank's opinion, a departure from the simple and explicit provisions laid down by the Treaty and the SGP would increase the risk of an ultimately problematic fiscal policy being more easily justified in the short term. At all events, the loss of transparency in connection with the proposed changes to the rules could cause public confidence in the efficacy of the existing disciplinary measures to decline. It would, therefore, be more difficult for the ECB Governing Council to successfully defend the goal of sustainable monetary stability. The Ecofin Council took due account of these reservations in rejecting an increase in the scope for an expansionary budgetary policy.

Improvement in general economic policy coordination

Based on another request made by the European Council in March 2002, the Ecofin Council agreed in December 2002 to streamline the other economic policy coordination processes. In this respect, it was agreed that the Broad Economic Policy Guidelines should be fundamentally revised only every three years and that the focus of annual reviews should be on the implementation of the policy guidelines in future. Moreover, the annual reviews of these economic policy guidelines should be synchronised more closely with adjustments in the employment and structural policy guidelines (Luxembourg and Cardiff processes).

(b) EU enlargement

Accession negotiations completed with ten countries

The accession negotiations with ten countries (Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia) were successfully completed at the European Council meeting in December 2002 following almost five years of negotiations. In October 2002, the European Council already endorsed the Commission's view that the aforementioned countries fulfil the political accession criteria and will also be able to fulfil the economic requirements (creation of a functioning market economy and sufficient ability to withstand competition) and assume the obligations of EU membership as of 2004. The accession treaty, through which the EU population will increase by 75 million people to over 450 million people, will be signed in Athens on 16 April 2003 and will come into force on 1 May 2004. This is provided that the ratification procedures in the current and new member states as well as the referenda due to be held in most acceding countries are concluded successfully beforehand.

EU enlargement made easier by several transitional regulations

Until accession, the progress made by the future member states in adopting and enforcing EU law will be subject to a special monitoring procedure. Their economic, budgetary and structural policies will likewise be subject to joint surveillance before accession to the EU. In sensitive areas, in particular agricultural and environmental policy as well as the free movement of capital and labour, EU law will not come fully into force until after a transitional period, as was also the case for earlier rounds of accessions. Furthermore, the accession treaty stipulates that if there is adequate reason – for example, in the event of severe disruptions in the internal market as a result of accession – all member states will be able to take protective measures for up to three years following EU enlargement.

ERM II membership not to be seen as merely a "waiting room"

Membership of the EU is not tantamount to accession to the euro area. At the time of EU entry, the ten new acceding countries will initially be "Member States with a derogation" with regard to EMU. Pursuant to Article 124 of the Treaty establishing the European Community, however, they shall be obliged to treat their exchange rate policy as a matter of common interest. This is intended, above all, to prevent manipulation of the exchange rate for trade policy purposes. Moreover, the acceding countries are expected to participate in the exchange rate mechanism of the European Monetary System (ERM II) after accession to the EU, but not necessarily immediately. This follows from the fact that the Treaty requires all new member states to see the introduction of the euro as an obligatory goal and that tension-free participation in ERM II is a necessary step towards doing so. The acceding countries should be aware, however, that they will for a long time still have to undergo a complex transformation and adjustment process, which is normally easier to complete with a high degree of exchange rate flexibility. The time of accession to ERM II, which requires parity and fluctuation margins to be laid down by mutual consent for each country, should therefore be well considered. Some countries should work towards making further progress in economic convergence and exchange rate stability before participating in ERM II. Furthermore, in view of the EMU convergence criterion of tension-free ERM II membership for two years, participation in ERM II should not be seen as merely a "waiting room" for rapid accession to EMU. Instead, ERM II provides the acceding countries with an independent exchange rate policy framework which, on the one hand, can help to further the convergence process by gearing economic policy towards exchange rate targets whilst, on the other, being sufficiently flexible to allow room for necessary exchange rate changes at any time. From the point of view of each individual acceding country as well as the EU as a whole, "freezing" an excessively high exchange rate (which would hamper economic growth) would be as undesirable as fixing a rate which is too low (thus giving inflationary forces new impetus). This means that accession to both ERM II and EMU must be guided by each individual country's circumstances and that, therefore, there should not be a time frame for accession to the exchange rate mechanism or even for participation in monetary union. The euro-area central banks and the acceding countries' central banks discussed all these issues at a joint high-level seminar organised by the ECB and the National Bank of Belgium in Genval, Belgium, in December 2002.

(c) Further political integration within the EU

ECB recommendation concerning an adjustment of the voting modalities in the ECB Governing Council

The Treaty of Nice entered into force on 1 February 2003, thus completing the EU's institutional preparations for enlargement. Most of the approved changes will, however, come into effect only upon enlargement in 2004 or later.[1] The adjustment of the voting modalities in the ECB Governing Council in an enlarged euro area, which is generally considered to be necessary, is of particular importance for European monetary policy. The Treaty of Nice – in adding Article 10.6 to the Statute of the European System of Central Banks (ESCB) and the ECB – contains an enabling clause for a simplified amendment of Article 10.2 of the Statute of the ESCB and the ECB which lays down the voting modalities in the ECB Governing Council. This will not affect the right to participate and the right to be heard of the members of the ECB Governing Council, which means that more extensive reforms to the ECB's management can be ruled out from the start. The decision about the future voting modalities, which is to be ratified by the member states, shall be made unanimously by the EU Council, meeting in the composition of Heads of State or Government, on the basis of a recommendation from the ECB or the European Commission. According to the Treaty, a recommendation of this kind made by the ECB requires a unanimous decision by the ECB Governing Council. In a declaration on the

1 For details about the outcome of the Intergovernmental Conference in Nice in December 2000 see: Deutsche Bundesbank, The outlook for the enlargement of the EU following the Nice European Council, *Monthly Report*, March 2001, pp 15-18.

Treaty of Nice, the Intergovernmental Conference assumed that a recommendation within the meaning of Article 10.6 of the Statute of the ESCB and the ECB would be submitted as quickly as possible after the Treaty entered into force. The ECB, therefore, approved a formal recommendation for an adjustment of the voting modalities in the ECB Governing Council on 3 February 2003 and forwarded it to the EU Council. The recommendation envisages the voting rights of the national central bank governors being based on a rotation system in which the individual governors are allocated to particular groups according to the size of their countries' economies. They will exercise a voting right with greater or less frequency depending on their group membership. This recommendation is intended to ensure that the ECB Governing Council will in future maintain its capacity for efficient and timely decision-making and that the governors involved in making monetary policy decisions always represent a substantial part of the euro area. An arrangement of this kind is appropriate as monetary policy decisions are to be orientated towards the needs of the euro area as a whole. In view of the forthcoming enlargement of the euro area to include many smaller countries, particular significance will be attached to the principle of "representativeness". This will not encourage a renationalisation of monetary policy; rather, sufficient legitimacy of decisions will contribute considerably towards making them acceptable to the financial markets and the EU's citizens. At the same time, the proposed solution upholds the key principles of the ECB ie that each member of the Governing Council has a vote and attends meetings in a personal and totally independent capacity.

State of deliberations in the European Convention

Even after the reforms implemented by the Treaty of Amsterdam and the Treaty of Nice, there are still considerable shortcomings in the Community's institutional system. In Nice, therefore, the European Council started an in-depth debate about the future of the European Union. In December 2001, it convened the European Convention by way of the Laeken Declaration on the future of the European Union. The principal tasks of the European Convention are to fully prepare a further Intergovernmental Conference scheduled to be held in 2004 and to pave the way for a constitutional treaty for Europe. The idea is to make the Union more transparent, democratic and in touch with its citizens. The Convention began its work in February 2002 based on numerous working groups. At the beginning of 2003, the deliberations entered the stage of drafting a treaty. The Convention is to submit a draft European constitutional treaty by the time the European Council meets in Thessaloniki in June 2003. Issues relating to economic and monetary policy were discussed in depth by the Convention's Working Group on Economic Governance. In its final report of October 2002,

ECB Recommendation of 3 February 2003 concerning an adjustment of the voting modalities in the ECB Governing Council in an enlarged euro area

Based on its current institutional framework, the ECB Governing Council has proposed that, in an enlarged euro area, the six Executive Board members should maintain a permanent voting right whilst 15 national central bank (NCB) governors should be able to exercise a voting right. When the number of euro-area NCB governors exceeds 15, they will exercise a voting right on the basis of a rotation system. In order to ensure that the decisions made are representative of the euro area as a whole, the governors will exercise a voting right with different frequencies depending on an indicator of the relative size of their economies. The principal component of this indicator is to be gross domestic product at market prices (⅚ weighting). The second component is to be the total assets of the aggregated balance sheet of monetary financial institutions (⅙ weighting).

Based on this indicator, the NCB governors are to be allocated to groups with different voting frequencies.

- During a transitional phase – which will continue as long as there are fewer than 22 euro-area member states – there will be two groups. The first group will consist of five NCB governors who will share four voting rights and the second group will consist of all other governors who will share 11 voting rights.

- Once there are at least 22 euro-area member states, a final three-group rotation system will come into operation. The first group will consist of five governors with four voting rights, whilst the second group will consist of half of all the NCB governors (rounded up to the nearest whole number) who will share a total of eight voting rights. The third group will consist of the remaining governors, who will share three voting rights.

The voting frequency in the first group – to which the President of the Deutsche Bundesbank will belong – will always be at least 80%. In the second and third groups, the voting frequency in the final system will decrease as the number of euro-area member states increases from 22 to 27 countries (from 73% to 57% in the second group and from 50% to 38% in the third group).

Decisions relating to the technical details of the rotation system and necessary adjustments in group allocations as a result of euro-area enlargement are to be adopted by the Governing Council with a two-thirds majority of all its members. During the transitional period, ie as long as there are fewer than 19 euro-area member states, special provisions may be necessary to ensure that the voting frequency of the members of the first group is not lower than that of the second group. The ECB Governing Council may also decide to refrain from introducing the rotation system until there are more than 18 euro-area member states.

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the Group recommends that the current structure of economic governance be maintained. This means that exclusive competence for monetary policy should remain with the Community and should be formulated solely by the ECB Governing Council in the independent capacity conferred upon it by the Treaty whilst leaving responsibility for economic policy with the member states.

2 Strengthening the international monetary and financial system

(a) Fundamental aspects of IMF resources and their use

Latest quota review completed

According to the IMF Articles of Agreement, the quotas of the member countries, which represent the key measure of each country's financial commitments, drawing rights and voting power, must be reviewed at least once every five years by the Board of Governors. Owing to the resistance of major member countries, the 12th general quota review was concluded in January 2003 without any quota increases. The stated reason for maintaining the status quo was that the Fund's current liquidity situation was adequate by historical standards. By contrast, the debate launched in early 2000 on reforming the quota formula has not yet resulted in a decision. The problem is how the economic position of the individual countries can best be defined under today's economic conditions and what consequences the alternative solutions would have for member countries. During the debate within the IMF Executive Board, increased convergence was reached on some issues. A broad consensus on a new quota formula (ie on economic factors and their weighting), however, has not yet been achieved. At the 2003 annual meetings, the Executive Board will present to the International Monetary and Finance Committee (IMFC), which meets at the level of finance ministers and central bank governors, an interim status report on its discussions.

Chile's accession to NAB

In late 2002 the IMF Executive Board and the members of the New Arrangements to Borrow (NAB) approved Chile's application to join the NAB. At the same time, the NAB and the General Arrangements to Borrow (GAB) were both renewed for an additional five years with effect from November and December 2003 respectively. The NAB entered into force in November 1998 as a supplement to the GAB, which up to then had been the sole borrowing arrangement. Both arrangements enable the IMF, in the event of a systemic threat to the world monetary system, to borrow financial resources from financially strong countries in order to assure its ability to provide extensive loans in a crisis. The GAB's members are the G-10 countries, with Saudi Arabia as an associate member. The NAB's membership, in addition to the GAB countries, now includes 14 other industrial countries and emerging market economies. The total amount of credit available under the NAB was set in 1998 at SDR 34 billion (just over US$46 billion at the end of 2002). Upon the entry of Chile (with a credit arrangement of SDR 340 million), the IMF decided to leave the total volume available under the NAB unchanged and to reduce the amount of the other NAB members' credit arrangements accordingly. This reduced the maximum amount the Bundesbank would have to provide in any future activation of an NAB from SDR 3,557 million to SDR 3,519 million. The NAB have been activated only once so far, and that was to finance a stand-by arrangement with Brazil in December 1998.

Agreement in principle on increased discipline in official lending

The international debt crises of the past few years and the escalating IMF financial assistance associated with these crises have finally convinced members that financial packages awarded all too readily could give market participants the wrong incentives. If the public sector is always hovering in the background as a potential financial troubleshooter, lenders and borrowers will invariably throw caution to the winds. In the end, more crises, not fewer, will erupt. For that reason, in April 2002 the G-7 countries produced an action plan for improving crisis prevention and crisis management which declared that more discipline should be used when granting official financial assistance in future and that the private sector needed to take a more active role in debt crisis resolution. The Bundesbank believes that, in practice, this should mean making IMF member countries' access to exceptionally large financial assistance packages conditional on extremely strict requirements. This would mean that in cases where the crisis has been caused by massive capital outflows, in particular, the debtor country would have to be extremely likely to regain market access quickly, with the result that IMF financial assistance would be, in effect, only a relatively short-term bridging operation. There is also a need to clarify the terms under which the Fund can provide its members with exceptional financial assistance in such liquidity crises. This is basically the scenario for which the special Supplemental Reserve Facility (SRF), which is not subject to access limits, was devised. This facility was created in 1997 with the idea that, in such emergencies, it would be the sole source of funding for that part of financial assistance in excess of the normal access limits. SRF loans have intentionally been made more expensive than all other facilities and are thus an additional disincentive against recourse to exceptionally large financial assistance packages. In the Bundesbank's opinion, therefore, a stop should be put to the occasional practice of using Stand-By Arrangements to provide financial assistance on relatively favourable terms in the case of exceptional liquidity assistance in excess of the regular access limits (300% of the quota in cumulative terms), a practice which contradicts the original intention.

CCL still unused

The Contingent Credit Line (CCL), a crisis-prevention instrument created in 1999, remained unused in 2002 as well. Apparently countries which meet the key eligibility requirements for using the CCL (consistent economic policies and sound economic structures) have no interest in this crisis-prevention credit line whose purpose is to prevent contagion effects. Attempting to make the financial terms more attractive would probably not be enough to allay the doubts of potential borrowers. The Bundesbank's opinion is that, owing to its conceptual problems, the CCL should be allowed to expire in November 2003 as envisaged.

New conditionality guidelines

In September 2002 the Executive Board of the IMF adopted new guidelines governing economic policy conditions on the use of IMF resources. This marked the end of a review of conditionality launched two years earlier. The new guidelines, which also take account of input from civil society and public forums in the member countries, are particularly aimed at streamlining conditionality and focusing it more on the IMF's core macroeconomic tasks. This streamlining of conditionality makes it easier for the member countries concerned to establish "national ownership" of the policy reform measures, thus improving the likelihood that the adjustment measures will be fully implemented. Finally, the modified guidelines should also help enhance the division of labour with other international financial institutions. In this regard the IMF is seeking, among other things, closer coordination with the World Bank to bring the latter's expertise in structural policy more to bear.

Independent Evaluation Office's first report

The IMF's new Independent Evaluation Office (IEO) presented its first status report on the prolonged use of IMF financial resources to the IMF Executive Board in September 2002. The first assignment was actually able to meet the great expectations regarding the independent evaluation of the IMF's policies which had led to the establishment of the IEO in July 2001. In its first report the IEO was very candid in its criticism of the use of IMF financial resources. The report cited overly optimistic assumptions regarding growth, the underestimation of risks, the insufficient account taken of inadequate capacity for implementation and the widespread toleration of waivers as frequent causes of the prolonged use of IMF financial resources by means of consecutive credit arrangements. In the meantime, the IMF's management has taken steps to overcome these weaknesses.

(b) Improving crisis prevention

Separating the IMF's surveillance and financing tasks?

One proposal for improving crisis prevention was greater organisational division between the IMF's surveillance and financing tasks. Advocates of an institutional barrier between the general surveillance of member countries' economic policies, on the one hand, and lending and the monitoring of adjustment programmes, on the other, hope that this will give the involved units greater independence and promote increased cross-monitoring, which in turn would ultimately enable them to assess their own policies more critically. It seems doubtful, however, whether such an organisational division will really make adjustment programmes more efficient. General surveillance of economic policy and the monitoring of reform measures that accompany IMF lending are mutually complementary tasks which should remain closely linked in practice in order to utilise synergy effects. The Executive Board can take primary responsibility for the necessary monitoring of the success of the IMF's various surveillance and stand-by tasks. The IEO also has an important role to play in this area. Further control mechanisms do not appear necessary at this juncture.

ROSCs and FSAPs for Germany

The crisis-prevention initiative of implementing internationally recognised standards and codes in order to promote the stability of national financial systems and thereby also the world economy works best if a maximum of countries take part. The IMF and World Bank joint progress reports, the Reports on the Observance of Standards and Codes (ROSCs), which – on the basis of voluntary participation of member countries – are generally published, represent an instrument with which the international community can enhance market transparency and thus, over the longer term, facilitate the improved differentiation of capital exports to emerging market economies by risk category. The results of these reviews are also included in the general Financial Sector Assessment Programs (FSAPs). They are published by the IMF as Financial Sector Stability Assessments (FSSAs), which relate to aspects of importance for the Fund's general monitoring tasks on the basis of case-by-case decisions. Germany supports these initiatives in both word and deed. In 2002 Germany's compliance with fiscal rules was reviewed; the final report is still pending. In addition, a review of Germany's overall financial system was begun in early 2003 and is to be completed later in the year.

The Financial Action Task Force (FATF), created in 1989 by the G-7 economic summit and based at the OECD, has adopted a total of 48 recommendations for combating money laundering and the financing of terrorism. They have been recog-

Pilot stage regarding compliance with FATF standards

nised in the aggregate by the Financial Stability Forum as one of the 12 most important standards for promoting stable financial systems. In autumn 2002, the IMF, World Bank and FATF agreed on a methodology for assessing countries' compliance with FATF standards as a 12-month pilot project. In these reviews, the IMF and World Bank focus on issues forming part of their macroeconomic mandate while the FATF and its appointed experts monitor criminal law aspects.

(c) Measures for private sector involvement in crisis resolution

G-10 recommendations for standardised collective action clauses

On the basis of the aforementioned G-7 action plan for improving crisis prevention and resolution, various efforts were made in 2002 to create a more comprehensive framework for timely and orderly debt restructuring in situations where sovereign debtors, despite all adjustment efforts, will not be able to service their foreign debts to private creditors in the foreseeable future. Given that recourse by emerging market economies to international securities markets has risen sharply since the early nineties, vast difficulties can arise in extreme crisis scenarios where debt restructuring is unavoidable if consensus solutions always have to be reached with a considerable number of bond creditors spread over a wide area. The best way to solve such coordination problems would be for all emerging market economies to include contractual provisions for majority decisions in their new international bond issues. This had already been proposed in the G-10's 1996 Rey Report. Yet this initiative was not pursued further at the political level, and the markets failed to react adequately to those recommendations – not least because they believed that the IMF would continue to provide financial assistance which would ultimately be used to service bonded debt. The envisaged change of course in IMF lending policy should, however, have deflated such expectations. In this sense, Argentina's moratorium should serve as a lesson, as this country (which had become the second-largest emerging market bond issuer) had to default despite considerable IMF assistance. Therefore, at the request of the G-7 countries, the G-10 once again took the lead in paving the way for the desired general use of collective action clauses.[1] For this purpose, in June 2002 the finance ministers and central bank governors commissioned a group of legal experts, in which the Bundesbank was represented, to develop, in close contact with market intermediaries, a set of model clauses suitable for all market segments since that would make it easier for market partici-

1 Owing to a long tradition, bonds issued under English law, in particular, include such clauses whereas this has not been the case for bonds issued under New York law or German law. According to the IMF, at the end of 2002 some 30% of emerging market sovereign bonds issued in foreign currency included collective action clauses.

pants to take a joint approach. In September 2002 the group presented a report to the G-10 finance ministers and central bank governors. The recommendations for model clauses essentially provide for the following:

– Designation of a permanent creditor representative to facilitate contact between debtor and creditors where further information is needed.

– Provisions to elect a negotiating creditor representative in the event of a crisis, whereby relatively small majorities should suffice (not more than two-thirds).

– Alternative proposals for the size of the qualified majority necessary to take restructuring decisions binding on all creditors (with an upper limit of 75% of holders of an issue).

– Only the creditors' representative should be able to institute litigation for non-performance, either at his own discretion or upon instruction of at least 25% of those present at an assembly of creditors.

– Assets gained through litigation are to be distributed pro rata among all creditors to make it less attractive for minority interests to resort to litigation.

Private sector has its own proposals for collective action clauses

The international representatives of market intermediaries have now presented an additional joint draft for collective action clauses. The major difference between these proposals, published in January 2003, and those of the G-10 is that the required majority for decisions on debt restructuring is much higher. It remains to be seen whether disparate views on these and some other issues can be reconciled. This is a pressing issue for the EU because in September 2002 the informal Ecofin Council decided that all government bonds issued in the EU under foreign jurisdiction should include collective action clauses in future. Since the intention is to show emerging market economies by example that such clauses do not intrinsically raise interest rates (a correction of insufficiently priced-in risks as a result of sustained curtailment of IMF lending would be a different matter), it is necessary for these countries to craft their terms of issue in a manner which is also best suited to emerging economies and thus capable of becoming a market standard. In this connection, Germany – which is an important issuing market for other EU member states – is being urged to clarify, at the request of German market experts, that the inclusion of collective action clauses in foreign bonds issued under German law will not encounter any legal hurdles.

A sovereign debt restructuring mechanism (SDRM) – Basic approach and unresolved issues

In November 2001, as Argentina's crisis came to a head, the IMF staff publicly proposed the creation of a formal sovereign debt restructuring mechanism (SDRM), preferably by amending the IMF Articles of Agreement. The purpose of such a mechanism was to make it easier for overindebted countries whose governments have large foreign debts to private creditors to ask their creditors in a timely manner for an unavoidable restructuring of their debts. A prime motivating factor was the concern that the sharp increase in the importance of securitised loans could make the concerted involvement of the typically very large number of bond creditors in restructuring agreements much more difficult, thereby making debtors loath to admit insolvency. With a view to preventing debt problems from dragging on indefinitely, the SDRM is designed to give the debtor the prospect of an orderly and relatively rapid restructuring. Qualified majorities of creditors – divided up according to major categories of debt instruments – would be able to take decisions on restructuring agreements which would be binding on all creditors holding the same category of claims. The SDRM would have one important advantage over the envisaged inclusion of collective action clauses in the documentation for new international bonds: as there would be one single decision-making procedure for each category of claims, no aggregation problems would arise within these individual classes of assets.

The International Monetary and Finance Committee of the IMF, which meets at ministerial level, asked the IMF staff in September 2002 to present a concrete proposal for a sovereign debt restructuring mechanism by the next spring meeting of the committee in April 2003. In the following, attention is drawn to some concrete SDRM issues which have not yet been sufficiently clarified by the IMF Executive Board.

1 What legal protection should be provided to debtor countries upon activation of the SDRM?

In the original IMF proposal, debtor countries would be able to activate the SDRM in the event of the introduction of a moratorium and thus automatically be entitled to legal protection from creditor enforcement for a limited period. This would enable the debtor to attempt to negotiate a majority restructuring arrangement with all creditors without minority creditors being able to disrupt the consensus formation by resorting to legal action. Any extension of the period of legal protection would likewise require a majority decision. However, if a majority decision on a restructuring agreement were not reached, the SDRM procedure would end and creditors would have the unrestricted right to take legal action to enforce their claims. In addition, a blocking minority would be authorised to revoke the debtor's legal protection if there were suspicion of abuse.

However, the SDRM proposal was vehemently criticised by the private sector and some emerging market economies (fearing that the mechanism could be abused, thus causing the cost of importing capital to increase). For that reason the IMF staff now holds that the activation of an SDRM need not require a comprehensive moratorium on debt payments (ie giving the debtor the possibility of imposing a selective moratorium); however, creditors whose debtors are in arrears should then be free, in principle, to enforce their claims by litigation. The IMF staff is of the opinion that litigation to force the debtor country to meet its payment obligations would be a relatively unattractive option to individual creditors if the SDRM were to require that those amounts extracted by enforcement be offset against any restructured debt agreed by majority vote. Thus, activating the SDRM would initially only mean formally asking creditors to institute negotiations on debt restructuring.

The Bundesbank's view is that a key element of the IMF staff's original proposal is its due recognition of the principle of equal treatment of creditors. A stay on litigation after a suspension of payments would create a reliable and transparent procedure. At the same time, this would not unduly encroach on creditors' rights since the procedure is only for a limited period. By contrast, it seems doubtful whether activating an SDRM without a broadly based moratorium would be a suitable instrument with which to bring an acute debt crisis under control in the first place.

2 How would the SDRM be activated?

The consensus is that the SDRM should be activated only at the initiative of the debtor country. It was also generally held that the debtor country itself should be authorised to activate the debt restructuring procedure. Another point to ponder is whether, in addition to the aforementioned possibility of lifting the stay on litigation at an earlier stage, there is also a need for additional precautions in order to minimise the scope for abusing the SDRM. The Bundesbank is of the opinion that the risk of abuse would be very small because the IMF would make its financial assistance, which is indispensable in a crisis, dependent on the debtor country acting in good faith.

3 What types of debt would be included?

The main aim of the SDRM would be to cover sovereign debt to private creditors which was taken up in a foreign legal jurisdiction and therefore, in practice, also in foreign currency. Foreign currency debt subject to the debtor country's law should be restructured under comparable conditions; however, this could be done outside the SDRM because the sovereign is able to create the legal conditions for an orderly restructuring in its own country. According to majority opinion, bilateral official debt in the context of the Paris Club should not initially be included in the SDRM. However, as in the past, comparable solutions should be sought for both categories of debt.

4 How would creditor claims be included in the voting procedure?

Once the mechanism is activated, creditors would be requested to register their claims by a certain deadline to obtain eligibility to participate in subsequent voting. Disputes should be resolved in a Sovereign Debt Dispute Resolution Forum (SDDRF). Creditor claims under the control of the debtor are a serious potential bone of contention. The mere suspicion of this happening, unless refuted, should lead to the revoking of the holder's voting rights. No decision has been taken on whether the activities of this forum should be subject to oversight (ie by the IMF Board of Governors).

5 Would there be exceptions for new lending during a crisis?

In line with the basic provisions of national insolvency codes, the SDRM proposal envisages allowing the debtor to retain access to new private sector lending during a crisis and, to this end, to exclude new lending during the debt restructuring procedure from restructuring. This would be predicated on approval by a qualified majority of creditors. Such lending would be very expensive, however, and the group of creditors would have no say in the economic policies of the affected country. For that reason, it is doubtful whether such exceptional rules would benefit all creditors and whether they should therefore be part of an SDRM. The IMF staff, however, do not regard these objections as serious enough to negate the advantages which the potential mobilisation of new funds would provide.

In principle, this was already explained publicly by the Federal Government in coordination with the Bundesbank in February 2000.[1] The Federal Ministry of Justice, in cooperation with the Federal Ministry of Finance and the Bundesbank, is preparing legislation to clarify the issue in order to remove once and for all any remaining doubts held by market participants.

Modification of SDRM proposal a step towards strengthening creditor rights

Whereas the general introduction of collective action clauses in bond contracts would serve only to close an increasingly significant gap in crisis-resolution instruments (along with the tried and tested Paris Club and London Club procedures), the IMF staff proposal of November 2001 to create an official procedure for handling the restructuring of sovereign foreign-currency debt, also known as a sovereign debt restructuring mechanism (SDRM), represents a qualitative leap in crisis resolution. In some respects an SDRM would be comparable to a modern national insolvency code, in which, in the event of serious crises, creditor protection and debtor protection would be given equal attention for the common good. The key practical advantage of this type of mechanism would be that, in the event of a moratorium and an unavoidable restructuring, a temporary stay on litigation would be imposed, and at least foreign currency liabilities to private creditors would be dealt with according to a uniform, and therefore more manageable, procedure. This, however, is precisely what market participants perceive as a major weakness of this proposal. Many market intermediaries, not to mention some emerging market economies, feel that there would be a considerable threat of this procedure being misused to impose moratoriums; such a development might engender increased risk aversion and ultimately lead to a steady drop in the desired capital imports of emerging market economies. The IMF staff has responded to these concerns during the international public debate by not only reducing its own role in activating such a mechanism (in order to avoid a conflict of interest with its role as a creditor) but also by advocating giving debtors, in the event of a moratorium, only greatly limited legal protection (as opposed to an automatic stay on litigation) in order to minimise the impact on creditors' rights. However, the underlying idea that debtors in major financial difficulties should generally waive the option of a general moratorium on payments raises considerable problems in terms of crisis management. In September 2002 the IMFC assigned the IMF staff the task of presenting a proposal which is ready for implementation at the next spring meeting. It re-

1 See "Statement by the Federal Government on the admissibility of including collective action clauses in foreign sovereign bond issues subject to German law", reprinted in Deutsche Bundesbank, *Annual Report* 1999, p 109.

mains to be seen to what extent the existing unresolved issues can be clarified by the IMF Executive Board prior to the meeting.

Proposed codes of conduct deserve support

In severe balance of payments crises which cannot be brought under control even by drastic adjustment measures, the mere existence of an SDRM is likely to help creditors and debtors reach agreement on voluntary debt restructuring earlier than in the past and would therefore shorten crises and cushion their international impact. To make it easier to reach such informal solutions, private sector and public sector bodies have put forward a series of proposals for a code of conduct which, in good times, would foster an exchange of opinions and the establishment of trust between the debtor and its private creditors and, in critical phases, can facilitate cooperation between the two sides. In principle, such projects deserve all the support they can obtain; however, this must not be construed as rendering an SDRM superfluous. A code of conduct can become fully effective only when backed by an official debt restructuring mechanism.

3 International financial assistance

Extreme concentration of IMF lending among very few countries

The amount of total IMF credit outstanding went up by SDR 10.6 billion in the 2002 calendar year to just under SDR 70.5 billion (US$95.9 billion). Member countries took recourse mainly to Stand-By Arrangements (SBAs) whereas the importance of drawing on the Supplemental Reserve Facility (SRF), which is subject to stricter financial terms, diminished. Argentina, Brazil and Turkey account for the bulk of IMF credit outstanding, whereas erstwhile large-scale debtor countries in east Asia reduced their debt significantly from their 1998 peak levels. The Fund's five largest borrowers now account for over 80% of credit outstanding (one-quarter of all lending going to Turkey alone and nearly two-thirds to the three largest borrowers put together). At the end of 2002 over one-third of the credit outstanding consisted of lending in excess of the regular access limits (300% of the quota in cumulative terms). This was distinctly more than following the 1997-98 financial crises. Another problem is that the granting of IMF financial assistance has in some cases been associated with a sharp rise in repayment obligations, which is tantamount to debt restructuring. In the end, the extreme concentration of risk among a very few countries could severely impair the ability of the IMF's lending mechanism to function properly.

Details on developments regarding the IMF's three largest exposures in 2002 are given below:

Details of the IMF's largest loans

– After missing programme targets by a considerable margin and imposing a far-reaching moratorium (December 2001), Argentina in 2002 was not able to draw any further on its credit line, which had originally been increased in September 2001 to SDR 16.9 billion (800% of the quota). The IMF, however, approved several extensions of the due date for repaying SRF loans, a move which was very problematic given the absence of agreement on a sustainable IMF programme. More deserving of criticism, however, is the new credit line of SDR 2.2 billion which, despite insufficient adjustment agreements and reservations aired publicly by the IMF's management, was approved after lengthy negotiations in January 2003 for political reasons and which will last until August 2003. The purpose of the credit line is to replace the IMF loans due during that period. By the end of February 2003 Argentina had effectively drawn on SDR 10.5 billion worth of IMF assistance (495% of the quota).

– In 2002 Brazil drew around SDR 7.7 billion from its IMF credit line of SDR 12.1 billion (400% of the quota) approved in September 2001. Moreover, it drew SDR 4.6 billion of the SDR 22.8 billion (750% of the quota) SBA approved in September 2002. This put Brazil's debt to the IMF at a total of SDR 15.3 billion (505% of the quota) at the end of February 2003.

– In February 2002 a new, heavily frontloaded SBA of SDR 12.8 billion (1,330% of the quota) was provided to Turkey. One of its purposes is to make it easier for Turkey to meets its repayment obligations to the IMF. In 2002 just under SDR 10 billion was drawn on this credit line, nearly SDR 5 billion of which was to settle IMF loans that had reached maturity. Setbacks in budgetary consolidation have been a key factor inhibiting further repayment so far. IMF assistance drawn upon by Turkey thus totalled SDR 16.2 billion (1,680% of the quota) at the end of February 2003.

Argentine crisis jeopardising international financial institutions' preferred creditor status

The dramatic crisis afflicting Argentina has also put this country's relations to the two most important development banks for Latin America to a serious test. In October 2002 the World Bank had to pay US$250 million to the creditors of a guaranteed Argentine government bond after Argentina had failed to pay a tranche of this bond. A month later Argentina announced to the World Bank that it would repay only part of the already overdue sum of more than US$800 million in debt service payments which it owed the World Bank. The World Bank then imposed the sanctions which are reserved for these cases. The first step was that its Executive Board was no longer allowed to approve new loans to

Purchases, repurchases and total credit outstanding under IMF facilities — Table 11

SDR billion

Item	1998	1999	2000	2001	2002
Purchases					
Credit tranches [1]	12.1	7.5	5.9	23.0	23.9
Extended Fund Facility (EFF) [1]	6.3	1.8	1.3	0.7	1.3
Compensatory Financing Facility (CFF) [2]	2.2	0.7	0.0	0.0	0.0
Poverty Reduction and Growth Facility (PRGF) [3]	0.9	0.7	0.5	0.9	1.3
Total purchases	21.5	10.7	7.7	24.6	26.6
Repurchases	7.3	20.0	15.8	14.1	16.0
Net purchases	14.2	– 9.3	– 8.2	10.6	10.6
Total IMF credit outstanding [4]	66.8	57.5	49.3	59.9	70.5
of which [5]					
Europe	19.6	17.4	16.7	21.6	25.2
Asia	24.2	17.9	18.6	12.4	10.3
Latin America	15.6	14.9	6.8	19.0	28.2
Africa	6.8	6.6	6.5	6.2	6.1

Source: IMF. — **1** Including purchases under the Supplemental Reserve Facility (SRF). — **2** Formerly the Compensatory and Contingency Financing Facility (CCFF). — **3** The PRGF is the successor facility to the Enhanced Structural Adjustment Facility (EASF), which in turn succeeded the Structural Adjustment Facility (SAF). Like the SAF, the PRGF is financed out of special assets administered by the Fund. — **4** End-of-year level. — **5** Delineation of regions according to IMF definitions; Europe includes the countries of the former Soviet Union.

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Argentina. After Argentina had remained in arrears for a further 30 days, disbursements on all loans granted to Argentina were suspended as well. Finally, Argentina also fell behind on its payments to the Inter-American Development Bank (IDB). Since borrowers from international financial institutions regard themselves as co-owners of these banks and thus attach great importance to the corporative character of membership, these institutions have always been regarded as creditors that have to be repaid first and on time (hence the term "preferred creditor status"). This status plays an important role in the rating of development banks on international financial markets and thus has immediate repercussions on their refinancing and lending costs. Argentina's actions have jeopardised the international financial institutions' preferred creditor status by, among other things, encouraging copycat behaviour. In addition, this status, which restricts the servicing of private sector claims in a crisis, will probably be called more and more into question by private lenders the less actual respect it is given by borrowers.

The activities of the most important multilateral development banks had mixed results in 2002. The economic difficulties faced by a number of Latin American countries had an adverse impact on the IDB's lending because of the reduced

Countervailing developments in lending commitments by multilateral development banks

ability of borrowers to repay their debts. The IDB's lending commitments (including its concessional facility) were reduced from around US$7.9 billion to around US$4.5 billion. By contrast, the European Bank for Reconstruction and Development (EBRD), with lending commitments of €3.9 billion, again had a good financial year. The new lending commitments made by the World Bank (International Bank for Reconstruction and Development (IBRD) plus the International Development Association (IDA)) likewise rose further in the 2002 financial year (July 2001 to June 2002), reaching US$19.5 billion against US$17.3 billion in the previous year. The IDA's lending contributed to this rise; it provides concessional loans to the poorer developing countries and, with lending commitments of US$8.1 billion, achieved its best-ever annual result. After relatively tense and arduous negotiations, the Thirteenth Replenishment was approved. Donors pledged to replenish the IDA's resources for lending commitments for the financial years of 2003 to 2005 by around US$13 billion. If other contributions such as transfers from the IBRD's net profits and repayments of past loans are included, the IDA has nearly US$23 billion at its disposal for the above mentioned three-year period.

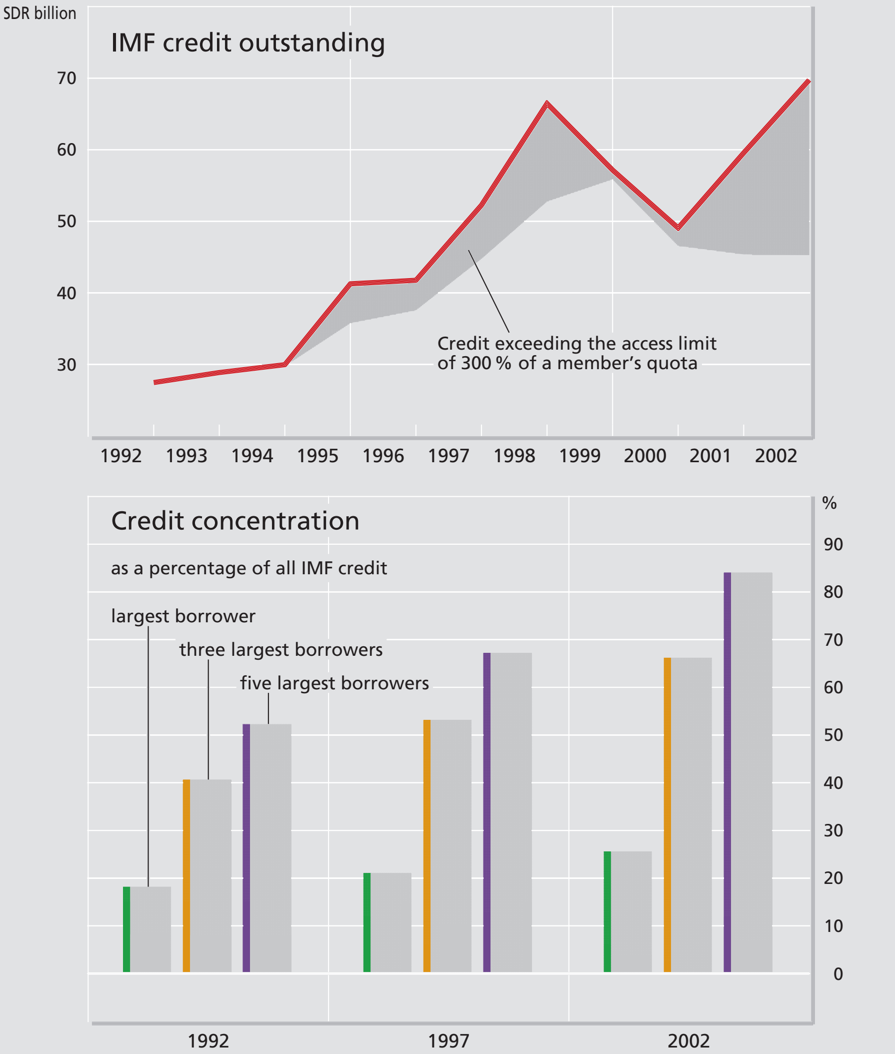
Slow progress in HIPC debt reduction initiative

The concrete implementation of the Heavily Indebted Poor Countries (HIPC) debt reduction initiative was rather sluggish last year. Of the 38 countries which the IMF and World Bank expect to seek debt relief under the HIPC initiative, only 26 countries had reached the "decision point" at the end of 2002. At the end of 2001 24 countries had already reached this stage. The amount of debt relief is defined for each qualifying debtor country once its decision point has been reached, the ultimate goal being the attainment of a sustainable level of debt. The explanation for the lack of progress is that many countries have not made a satisfactory degree of adjustment owing to military conflict or for other reasons. That leads to major problems in agreeing on credible reform programmes. To make debt relief available to these countries as well, the sunset clause of the initiative was extended to the end of 2004. The debt relief granted in 26 cases – of these countries, six had also reached the "completion point", where the committed debt relief is actually provided, by the end of 2002 – will reduce those countries' debt by around US$40 billion in nominal terms. As the year 2002 progressed, it became clear that some HIPCs probably had to struggle with excessive debt caused by severe exogenous shocks by the time they reached the completion point. The topic of additional debt cancellations at the completion point was therefore discussed with increasing intensity last year. The first instance of such "topping up" was in April 2002. Additional debt relief naturally gives rise to further financing problems. The HIPC Trust Fund managed by

IMF credit outstanding and its concentration

Chart 25

End-of-year levels



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the IDA already has a shortfall which at last report was between US$750 million and US$800 million.

New UN initiatives to promote development

In 2002 the general debate on development policy was strongly influenced by the UN International Conference on Financing for Development, which took place in Monterrey, Mexico, in March 2002. This conference was dedicated to measures to achieve the "Millennium Development Goals". One of the most cited of these millennium goals, which were enshrined in the UN "Millennium Declaration" in 2000, is to reduce the number of people living in extreme poverty by 2015 by half compared with 1990 figures. The closing document of this conference, the Monterrey Consensus, which was adopted by more than 50 heads of state and government, calls for further liberalisation of trade, an increase in development aid and a reduction in the external indebtedness of the poorest countries. Donor countries were urged to undertake concrete efforts to come closer to ultimately providing 0.7% of their GNP in development aid, an aim already agreed with UNCTAD in 1970. Even before the conference, the EU had announced that it would increase its share from 0.33% to 0.39% by the year 2006. Developing countries were called upon, in particular, to institute good governance and sound economic policies. At the World Summit on Sustainable Development which took place in August and September 2002 in Johannesburg, South Africa, by contrast, a wider range of topics was presented for debate. The conference's final report exhorts the rest of the world to give developing countries improved access to the world markets for their especially important products. In this connection, the report stresses the visionary "New Partnership for Africa's Development" (NEPAD) initiative, which puts forward a plan for rebuilding and developing the African continent, as a commitment which the African heads of government owe their countries.

Operations of the Deutsche Bundesbank

I Structural reform

1 Adaptation of the Bundesbank's management structure to the situation under monetary union

New situation following the introduction of the euro

The introduction of the single European currency on 1 January 1999 radically changed the Bundesbank's tasks and activities in the field of monetary policy. As an integral part of the European System of Central Banks (ESCB), it is now jointly responsible for ensuring the stability of the euro together with the central banks of the other participating countries and the European Central Bank (ECB). One of the Bundesbank's prime tasks as part of the ESCB is to contribute towards safeguarding the stability of the common currency. It does this firstly through the Bundesbank President's membership of the ECB Governing Council and secondly through the Bank's involvement in preparing and implementing monetary policy decisions and communicating them to the public. After the start of monetary union, as before, the Bundesbank also performs diverse other functions in the fields of cashless and cash payment operations, banking supervision, statistics as well as external economics, and in addition it acts as the Federal Government's fiscal agent.

Entry into force of the amended Bundesbank Act on 30 April 2002

The new situation made it necessary to change the Bundesbank's management structure. Following intense and animated discussion, especially concerning the future management board, the Seventh Act Amending the Bundesbank Act was passed by the Bundesrat (upper house of parliament) on 22 March 2002. It entered into force on 30 April 2002. The Act introduced changes in the Bank's management and decision-making structure that were the logical consequence of the transfer of monetary policy responsibility to the ESCB/Eurosystem from the start of stage three of Economic and Monetary Union on 1 January 1999.

The Bundesbank's new management board

Since 1 May 2002 the Bundesbank has been governed by an eight-member Executive Board *(Vorstand)* which assumed the various responsibilities previously exercised by the Central Bank Council *(Zentralbankrat)*, the Directorate *(Direktorium)* and the nine executive boards of the Land Central Banks *(Landeszentralbanken)*. The Executive Board is based in Frankfurt am Main and comprises the President of the Bundesbank, the Vice-President of the Bundesbank and six other members. Previously the Bank's top management, comprising the Central Bank Council, the Directorate and the nine executive boards of the Land Central Banks, had consisted of eleven bodies with up to 32 (latterly 25) members. The members of the Executive Board are appointed by the President of the Federal Republic of Germany. The President, the Vice-President and two other members of the Executive Board are nominated by the Federal Government, while the other four members of the Executive Board are nominated by the Bundesrat in agreement with the Federal Government. With this new management structure the Bundesbank is better equipped to deal with the current and future requirements of the ESCB.

Single management body a key requirement for an efficient organisation

With the entry into force of the new Bundesbank Act the former decision-making prerogatives of the Land Central Banks in certain areas were also abolished. Under the new structure the Bank's existing organisational units – nine Land Central Banks and the Central Office – were amalgamated to form a single entity. The Central Office retains its name in English but in German changes it from *Dienststelle des Direktoriums* to *Zentrale*, while the former designation "Land Central Banks" has been replaced by the new term Regional Offices *(Hauptverwaltungen)*, and instead of carrying the names of the states which they cover they are now differentiated by the city in which they are based. This paved the way for the creation of a more efficient and more cost-effective organisation. Thus the foundations were laid for the "new" Bundesbank with shorter decision-making and reporting channels.

2 New organisational and operational structure

Soon after the new Executive Board took up office on 1 May 2002 it set to work on the task of reforming the Bank's internal structure. The Committee for Controlling and Organisation *(ACO)* set up by the Executive Board elaborated proposals for the Bundesbank's future organisational and operational structure. In the fourth quarter of 2002 the Executive Board adopted the new organisational blueprint for the Bundesbank. This concluded the basic planning phase of the restructuring process.

Central Office responsible for dealing with all policy issues

The basis of the new organisation is a clear division of duties, with no blurring or overlapping of responsibilities, between the Bundesbank's component units. The Central Office is responsible for dealing with all basic policy issues and for preparing the decisions of the Executive Board. This has put an end to the time-consuming coordination with the former Land Central Banks that was necessary in the past. The staff of the Central Office are also responsible for contacts with the ESCB and represent the Bundesbank – as hitherto – in the ESCB committees and working groups. Tasks connected with the implementation of policy decisions, for example in the field of banking supervision, are executed by the Regional Offices, whereas the branches carry out operational banking tasks, especially in connection with cash transactions.

Uniform structure of the Regional Offices

The Regional Offices are each headed by a President and are responsible for carrying out the tasks assigned to them by the Executive Board as instructed by it. They report to the competent department at Central Office. To enhance efficiency, the nine Regional Offices have been given a uniform organisation consisting of three regional divisions: "In-house operations" (business organisation, human resources, administration), "Banking supervision" and "Banking operations".

Service Centres set up for the execution of specific Bank-wide tasks

In addition, Service Centres are being set up at several Regional Offices which concentrate at a single location the execution of specific Bank-wide tasks, eg securities settlement and deposit account management, procurement or the granting of health care subsidies to employees with civil servant status. In the past the execution of these tasks was fragmented between the Central Office, the Regional Offices and in some cases the branch offices. Furthermore, some Central Office departments, notably the Legal Department, the Auditing Department and the Information Technology Department, maintain external units located at the Regional Offices.

Implementation within three years at the latest

The work of adapting the organisational structure at the Central Office and in the core areas of the Regional Offices will probably be concluded by 1 July 2003. By contrast, the timetables for setting up the individual Service Centres vary greatly in line with their different circumstances. However, the entire restructuring process will be concluded at the latest in three years' time and will entail a reduction in staff numbers of approximately 10%; this downsizing will be achieved in a socially humane manner.

3 Adjustment of the branch network

Switch to a single-tier branch network

The entry into force of the Seventh Act Amending the Bundesbank Act also heralded a switch to a single-tier branch structure. The previous distinction between branches and their sub-branches (together known as branch offices) has been abolished as it was no longer in keeping with modern-day requirements. Since this change placed the former branches and sub-branches on an equal legal footing, it was necessary to examine for each location whether continued operation as a branch was commercially viable.

Further streamlining of the branch network

The reappraisal of the Bank's branch system did not start with the amendment of the Bundesbank Act, however. In the past, too, the Bank made adjustments in the light of changes in the overall operating environment, especially the structural changes occurring in the banking industry. Thus back in 1992 the Central Bank Council decided to reduce the number of branch office locations within ten years from around 200 to 128. This process was more or less concluded in the year under review; on 31 December 2002 the number of branch offices had been cut to 118 locations.

Conversion of the former sub-branches into operating units

In view of the growing regional concentration and automation of banking services and the changes in the work structure brought about by the transfer of monetary policy responsibility to the ECB – for example in the field of central bank refinancing – further adjustments of the branch network have become unavoidable. Consequently, the Executive Board, also bearing in mind the decision taken previously by the Central Bank Council to restrict the business activities of the former sub-branches to cash operations, decided to convert the former 52 sub-branches into dependent operating units with effect from 1 April 2003 and to close them within five years (by 30 April 2007 at the latest). After that the Bundesbank's branch network will comprise only 66 locations.

Gradual closure of the operating units by 2007

In view of the business trends during the past few years, the Bank envisages closing a total of 20 branch offices (19 former sub-branches and 1 former branch) already as of 1 April 2003. The other operating units will be closed gradually over the next few years (seven in 2004; five in 2005; five in 2006; nine in 2007; for six operating units no definite closure date has been set yet).

Nationwide provision of central bank services ensured

Although the decisions of the Executive Board will render its branch network less dense, a nationwide presence will nonetheless be maintained. The provision of central bank services – especially supplying the economy with banknotes and coins, which accounts for around two-thirds of the branches' activities – will continue to be ensured. This is confirmed by the Bank's experience in eastern Germany where, from the beginning, far fewer locations were established. Despite the different density of branches in eastern and western Germany, there are no differences in the level of provision of central bank services.

4 Streamlining the range of cash operation services

Reorientation of cash operations

For years the banking industry has been withdrawing more and more from the cost-intensive services connected with cash operations. Many banks have outsourced central cash office functions, including the supply and collection of banknotes and coins, to cash-in-transit companies. However, the labour-intensive bundling and compilation function, ie the packaging of inpayments in line with the prescribed standard processing format and the apportionment of outpayments according to each customer's requirements, are performed by these service providers to a limited extent only. As a result, the Bundesbank became increasingly involved in cash handling and processing operations.

The final stage of monetary union featuring the issuance of euro banknotes and coins gave the Bundesbank renewed cause to review its role in cash operations. Against this background, the Executive Board has reoriented the Bundesbank's business policy in the field of cash-related transactions.

Main features of the reorientation of cash operations

As a general principle the Bank intends to concentrate the cash operations which it supplies on the standard service portfolio defined in the Eurosystem. These standard services are provided free of charge and primarily comprise the inward and outward delivery of banknote bundles and packets as well as the acceptance of machine-packed rolls of coins in packs and standardised containers.

The Bank remains committed to participating in banknote processing in future for the sake of assuring the present quality standard. The Bank will continue to guarantee the purity of the stock of banknotes in circulation by taking counterfeits and unfit notes out of circulation. By contrast, the Bank intends to limit its involvement in coin processing to the issuance of newly minted coins, meeting marginal stock requirements, processing counterfeit coins, replacing damaged coins, taking unfit coins out of circulation and carrying out random quality checks.

The Bank will hold discussions with its clients – primarily credit institutions and cash-in-transit companies – on the question of whether and on what terms it will continue to offer any additional services over and above the standard range.

Timetable for implementing the decisions

For the rendering of non-standard cash operation services a new price system is to be introduced at the beginning of 2004. From the start of 2007 the container will become the standard unit in cash operations concerning metal money. The

Executive Board has set itself a time frame of ten years for the implementation of its business policy decisions. This accommodates the Eurosystem's efforts to establish a level playing field across the single currency area for all parties involved in cash operations.

II Processing cash payments and cashless payments

1 Cash payments

Euro banknotes and euro coins in circulation

To ensure a smooth euro cash changeover, it was crucial to provide credit institutions and their business customers with sufficient advance stocks of euro banknotes and coins (frontloading). Altogether, the Eurosystem distributed more than 6 billion euro banknotes with a value of €133 billion and more than €37.5 billion euro coins with a total value of €12.2 billion in 2001 during the frontloading phase. Of these, the Bundesbank distributed 2.6 billion euro banknotes representing a value of €57.0 billion and 12.4 billion euro coins representing a value of €4.3 billion. Thanks to these extensive preparations, the currency changeover was accomplished rapidly and smoothly. During 2002, the volume of euro banknotes in circulation issued by the Eurosystem increased sharply to €358.5 billion. By contrast, the volume of coins in circulation showed only a slight rise to €12.4 billion. At the end of 2002, 96.6% of all euro currency in circulation issued by the Eurosystem consisted of banknotes, and 3.4% of coins.

During the first year of euro banknotes and coins as legal tender, the Bundesbank supplied 17.6 billion euro coins with a value of €7.8 billion and 13.3 billion euro banknotes with a value of €433.5 billion. During the same period, it took in from its customers 18.6 billion euro coins with a value of €8.5 billion and 13.1 billion euro banknotes with a value of €364.7 billion for processing.

To the coins in circulation were added euro commemorative coins in the participating countries. In Germany, German euro commemorative coins with a total value of €180 million were put into circulation.

At the end of 2002, the stock of euro coins under the responsibility of the national central banks of the participating countries amounted to €4,796 million, representing 38.6% of the total coins in circulation.

Euro currency in circulation

Table 12

Trend

€ million

End of	Currency in circulation	Banknotes in circulation	Coins in circulation 1
2001	145,280	133,050	12,230
2002	370,968	358,535	12,433

Pattern at the end of 2002

Banknotes in circulation			Coins in circulation 1		
Notes of €	€ million	Percentage of total	Coins of €	€ million	Percentage of total
500	83,432	23.3	2.00	5,000	40.2
200	24,170	6.7	1.00	3,554	28.6
100	67,317	18.8	0.50	1,829	14.7
50	121,735	33.9	0.20	996	8.0
20	39,495	11.0	0.10	552	4.4
10	16,433	4.6	0.05	299	2.4
5	5,953	1.7	0.02	134	1.1
			0.01	71	0.6
Total	358,535	100	Total	12,433	100

1 Circulation of euro coins excluding commemorative coins.

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Return of DM notes and coins

The currency exchange process was spread over a period of time and included measures to reduce the amount of national Deutsche Mark currency in circulation ahead of the changeover date. The total value of DM banknotes in circulation had already declined in 2001 from DM262.1 billion to DM149.8 billion. During the same period, the total value of DM coins in circulation fell from DM16.1 billion to DM12.5 billion. While the total value of DM banknotes showed a significant fall from DM149.8 billion to DM9.4 billion following the introduction of the euro in 2002, the total value of DM coins in circulation declined merely from DM12.5 billion to DM7.5 billion. In this connection, it has to be borne in mind that the total value of coins in circulation includes DM5 and DM10 commemorative coins and that, as may be expected, a major part of the DM coins in circulation is irretrievably lost. In terms of pieces, DM12.3 billion coins were returned.

At the end of 2002, the Bundesbank's stock of coins denominated in Deutsche Mark had a total value of DM5,872 million. This was a result of the strong return flow of coins at the start of the year. This process is continuing, albeit to a lesser extent, with the returned coins being subsequently processed and recycled. Ultimately, around DM12.9 billion coins worth DM4,958 million were recycled in

DM currency in circulation

Table 13

Trend

DM million

End of	Currency in circulation	Banknotes in circulation	Coins in circulation
1998	270,981	255,335	15,646
1999	289,972	274,133	15,839
2000	278,143	262,089	16,054
2001	162,205	149,755	12,450
2002	16,876	9,383	7,492

Pattern at the end of 2002

Banknotes in circulation			Coins in circulation		
Notes of DM	DM million	Percentage of total	Coins of DM	DM million	Percentage of total
1,000	2,298	24.5	10.00	2,437	32.5
500	760	8.1	5.00	2,092	27.9
200	432	4.6	2.00	777	10.4
100	3,074	32.8	1.00	852	11.4
50	1,049	11.2	0.50	494	6.6
20	819	8.7	0.10	490	6.5
10	819	8.7	0.05	174	2.3
5	132	1.4	0.02	74	1.0
			0.01	102	1.4
Total	9,383	100	Total	7,492	100

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2002. Between 1948 and 2002, the Bundesbank – acting for the account of the Federal Government – received coins amounting to DM20,275 million and destroyed coins which were no longer fit for circulation or which had been called in, equivalent to DM6,911 million.

Destruction of banknotes

The following banknotes have been destroyed in the past few years:

	1998	1999	2000	2001	2002
DM banknotes million	1,475	795	782	1,781	2,426
DM billion	96.2	43.0	85.1	260.9	246.5
Euro banknotes million	–	–	–	–	137
€ billion	–	–	–	–	3.3

During the year in which euro banknotes and coins were introduced, it was possible to shred almost all of the large volume DM banknotes flowing back from circulation. Most of these were of the denominations DM100 or lower.

As may be expected, the destruction of rejected euro banknotes was not yet a major factor.

Euro counterfeits

The number of counterfeit or suspected counterfeit euro banknotes and euro coins detained in payments and appraised by the Bundesbank was significantly lower than the number of such DM-denominated items in previous years.

Counterfeits detained in payments or in the exchange of Deutsche Mark, as recorded by the Bundesbank — Table 14

	DM banknotes		DM coins	
Year	Number	DM thousand	Number	DM thousand
1998	36,139	4,129	19,990	98
1999	22,532	2,316	26,813	132
2000	20,702	2,428	20,365	100
2001	29,464	4,760	27,263	135
2002	18,255	3,700	31,931	159
	Euro banknotes		Euro coins	
	Number	€ thousand	Number	€ thousand
2002	13,698	872	1,032	2

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The €50 banknote was the most frequently counterfeited denomination (8,609 items), followed by the €100 note (2,584 items). The counterfeit coins were almost exclusively of the €2 denomination (1,021 items).

D-Mark counterfeits

There was a decrease in the number of counterfeit banknotes detained in payments (including the exchange of Deutsche Mark) and appraised by the Bundesbank, while the number of counterfeit coins increased.

The majority of counterfeit banknotes were of the DM20 and DM100 denominations. Counterfeit coins were almost exclusively of the DM5 denomination.

2 Cashless payments

Slight decline in the number of items in payments via the Bundesbank

The number of domestic and cross-border payments made through the Bundesbank in 2002 showed a slight decline on the year. Overall, around 2.2 billion transfer and collection orders to the value of €130,919 billion were settled in the year under review, signifying a 1.8% fall in the number of items submitted. The value of transactions, however, was 21.6% up on the year. This increase

The cashless payments of the Deutsche Bundesbank

Table 15

Item	2001 Number (million)	2001 € billion	2002 Number (million)	2002 Change in %	2002 € billion	2002 Change in %
Retail payments						
Paperless settlement (RPS)						
Direct debits, cheques	1,363.7	1,377	1,284.8	– 5.8	1,226	– 11.0
of which Conversions	44.3	849	34.1	– 22.9	715	– 15.8
Prior 3 payments	833.8	825	871.9	4.6	886	7.4
of which Conversions	1.7	14	2.0	14.0	13	– 9.7
Total	2,197.5	2,202	2,156.8	– 1.9	2,112	– 4.1
MASSE 1 (cross-border)	4.4	2	4.6	3.4	2	6.1
Grand total	2,201.9	2,204	2,161.3	– 1.8	2,114	– 4.1
Large-value payments						
Gross settlement procedures						
ELS 2	15.9	21,145	–	–	–	–
RTGS^{plus} 3	4.2	14,302	27.6	551.8	91,818	542.0
TARGET 4 (cross-border)	3.7	33,282	4.3	15.0	32,969	– 0.9
AZV 5 (cross-border)	0.2	127	0.2	1.8	28	– 78.3
Other 6	0.7	1,612	2.9	334.5	3,992	147.7
Total	24.7	70,466	35.0	41.6	128,805	82.8
Net settlement procedures (Daily local clearing system)						
EAF 7	11.0	35,026	–	–	–	–
Total	11.0	35,026	–	–	–	–
Grand total	35.7	105,492	35.0	– 2.1	128,805	22.1
Cashless payments	2,237.7	107,696	2,196.3	– 1.8	130,919	21.6

1 Procedure for cross-border retail payments of public authorities. — **2** The real-time gross system of the Bundesbank up to 2 November 2001. — **3** The real-time gross system of the Bundesbank from 5 November 2001. — **4** Procedure (of the EU central banks) for cross-border individual/large-value payments in EU countries. — **5** Procedure for cross-border individual/large-value payments in EU/EEA countries and non-EU/EEA countries. — **6** For example, special procedures for public authorities, payments within ELS following the introduction of RTGS^{plus}. — **7** Discontinued as of 2 November 2001.

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was due, in particular, to the fact that the real-time gross settlement system RTGS^{plus}, introduced in November 2001, had become successfully established.

Further developments in RPS

The processing of payments as well as communications with customers in retail payment systems are being progressively optimised by a multi-stage strategy developed in consultation with the banking industry. Later deadlines for submissions by data telecommunication (up to 8 pm for credit transfers and up to 9 pm for collection orders) were introduced in the first stage, which was implemented in autumn 2001. Additionally, since April in the reporting year, the Bundesbank – as part of stage two – has been accepting and delivering RPS (Retail Payment

System) payments in the OFTP communications protocol, which is the dominant standard in the German banking industry for bilateral (data telecommunication) transfers of retail payments. This has led to a considerable increase in the percentage of payments submitted by data telecommunication: in December 2002, more than half of the number of items processed in the Bundesbank's RPS were being submitted by data telecommunication. With the implementation of stage three in early April 2003, it will be possible to submit items arising from transactions on the current business day (such as transactions at payment terminals and cash dispensers during the evening) by data telecommunication up to 6 am on the next business day, which will then be processed and sent out on the same day.

New price and service structure in retail payments

With its price model which has been in effect since 1 July 2002, the Bundesbank is taking due account of its principle of promoting efficient paperless methods of settling retail payments. For the standard service of submission by data telecommunication, the transaction fee of €0.0015 is less than one-third of the amount charged earlier. In the case of submission on data media as an additional service, an additional fee of €7.50 is charged. The Bundesbank is thus taking account of the rationalisation effects and associated savings in costs resulting from the settlement of RPS payments by data telecommunication and is passing this cost advantage on to its customers.

RTGS^{plus} – successfully established in the market

On 5 November 2001, the Bundesbank successfully launched its new liquidity-saving real-time gross settlement system, RTGS^{plus}. With around 135,000 outgoing domestic and cross-border payments every working day in December 2002, RTGS^{plus} has become established as one of the largest clearing systems in the European Union (EU). In terms of items, RTGS^{plus} has an almost 30% share in total individual payments in euro. Among all the EU central banks, RTGS^{plus} has, in fact, achieved an almost 50% "market share" of individual payments. RTGS^{plus} has proved to be an efficient and stable system. Even major peak loads – such as the more than 216,000 payments with a value of around €810 billion on 30 December 2002 – were accommodated without problems. With its rapid settlement of payments as well as its modern and convenient options for liquidity management, RTGS^{plus} enjoys a high level of customer acceptance. In the year under review, the number of participants was increased from 58 to 74.

Very soon after RTGS^{plus} was put into operation, the Bundesbank announced its intention to discontinue the operation of ELS three years afterwards. Following the introduction of RTGS^{plus}, the fact that only a small number of items are now

Development of the "customer access mechanism" as a new means of access

processed in ELS means that it is too large and too costly in operation. Even so, it is necessary to maintain a technical infrastructure in order to preserve the range of services mainly for the public cash offices and for the bank's own internal purposes. This technical infrastructure should provide modern access to payments services, especially those beyond $RTGS^{plus}$, as well as to account management, use available potential for synergies by means of consolidating formerly separate IT procedures and further optimise the quality of services. Against that backdrop, work on developing what is known as a "customer access mechanism" was stepped up last year. The "customer access mechanism" is scheduled to be put into operation in the second half of 2004. Several requests have been made to the Bundesbank to examine the possibility of opening its "customer access mechanism", in particular, for smaller credit institutions. In line with its traditional competitively neutral role as a provider of services in payments for the banking industry as a whole, the Bundesbank will therefore continue to offer credit institutions indirect access to $RTGS^{plus}$ as an alternative to indirect access via other credit institutions. The range of available services is confined to the needs of the Bundesbank's non-bank customers, however. The Bundesbank thus makes a clear distinction between the "customer access mechanism" and the range of services provided by $RTGS^{plus}$ and makes it plain that the "customer access mechanism" is neither an in-house competitor of $RTGS^{plus}$ nor designed as a range of services in competition with existing structures in the banking industry.

3 Notable developments in domestic and cross-border payments

(a) TARGET – the real-time gross payment system for the euro

TARGET: euro large-value payments system with the highest turnover

In the year under review, the TARGET (Trans-European Automated Real-Time Gross Settlement Express Transfer) system, comprising the 15 national real-time gross settlement (RTGS) systems of the EU member states and the ECB Payment Mechanism, maintained its position as the euro large-value payment system with the highest turnover. Around 54,000 cross-border payments amounting to somewhat more than €485 billion were processed on a daily average in 2002. An average of just under one-third of all orders (16,800 payments) and more than one-quarter of the total amount (€129 billion) were submitted by Germany for passing on to other countries. In terms of the number of items received, German banks, with 14,200 payments, accounted for somewhat more than one-quarter of all payments. In total, German credit institutions were involved –

either ordering or receiving – in three out of every five cross-border TARGET payments.

High availability of the TARGET system

In the year under review, the TARGET system again proved to be a fast, secure and reliable system for the settlement of cross-border large-value payments in euro. In the reporting year, the availability of the system as a whole amounted to 99.77%, compared with 99.75% in 2001. The availability of the German TARGET component increased from 99.33% in 2001 to 99.61%.

Settlement of CLS payments via TARGET

The high availability of TARGET was one of the essential requirements for launching the multi-currency Continuous Linked Settlement System (CLS) on 9 September 2002, which was developed by an international group of banks (see also pages 132-133). All euro payments made to and by the CLS Bank (net positions of the participants) are settled through TARGET. These are particularly time-critical payments: a delay in their settlement could have an impact on other currency areas. In order to prevent any associated systemic risks, all the EU central banks involved have taken precautions, in cooperation with the participants in CLS, to ensure the continued processing of CLS payments even if there are any temporary disruptions to TARGET. Since CLS was put into operation, it has been possible to settle all CLS payments promptly via TARGET.

The long-term evolution of TARGET

On 24 October 2002, the Governing Council of the ECB took a strategic decision on the direction of the next generation of the TARGET system (TARGET2). Essentially, the long-term TARGET strategy is designed to ensure that TARGET

– is better suited to meeting customers' needs by having an extensively harmonised service level,

– ensures cost-effectiveness and

– can adapt quickly to future developments including the enlargement of the EU and the Eurosystem.

Principles and basic structure of TARGET2

The essential principles and the basic structure of TARGET2 may be summarised as follows

– TARGET2 will still be a system consisting of multiple platforms. Nevertheless, a common platform is to be established, in which all countries no longer wishing to operate their own RTGS system can participate. For a period of initially three years, starting with the launch of TARGET2, this common platform will be exclusive in character. It is only after that that further common platforms in the TARGET system will be allowed.

– The range of services offered by the individual components in TARGET2 will be considerably more standardised than at present: it is envisaged that the "core service" provided by all systems will be broadly defined.

– For the core service, TARGET2 will have a single price structure which applies to all systems as well as to all domestic and cross-border TARGET payments. However, the single price will not be applied until the new TARGET2 system with the one common platform is ready for operation. As things stand at present, this is not going to be the case before 2004 and will probably not be until 2005-06.

– The systems in question will have to have covered costs within four years on the basis of the harmonised prices.

The national central banks will remain responsible for the accounts and business relations with the credit institutions.

Stance taken by the Bundesbank

The Bundesbank has not been able to achieve its original objective of establishing TARGET2 on a single common technical platform for all the EU central banks. Nevertheless, the decision now taken has incorporated a number of the Bundesbank's key requirements which are designed to lay the foundation for a dynamic consolidation. This concerns the consolidation of the following points

– The reference variable for the single price will not be the average cost of all the TARGET components but the most cost-effective system within TARGET. This means that a very low price has been set as the benchmark – one at which very few of the present systems are likely to cover their costs.

– The period for achieving cost recovery is comparatively short. As the escape route of putting up prices has been blocked off, the only remaining option is consolidation through working together at the operational level.

From the Bundesbank's point of view, a single common platform for all the EU countries would have been the best solution for TARGET2 from the outset. Even so, it is interested in a dynamic development of the common platform by means of involving an increasing number of countries and their RTGS systems. RTGS^{plus} provides a firm foundation for this because it uses modern technology, is very efficient, enjoys a high level of customer acceptance and has a favourable cost structure. The Bundesbank will therefore endeavour to introduce the RTGS^{plus} idea into the common platform.

(b) Linking the Bundesbank to the planned EBA STEP2 system for cross-border euro retail payments

Objective of STEP2

In 2001, the Euro Banking Association (EBA), a private institution which operates a euro individual payment system (Euro 1) for commercial payments in parallel with TARGET, submitted an initial plan for setting up a pan-European automated clearing house, Straight-Through Euro Payments (STEP2). The aim of STEP2 is to make the settlement of cross-border retail payments in the EU more efficient. In the first stage, only the settlement of credit transfers is envisaged.

Basic features of STEP2

As a matter of policy, only banks within the EU can participate in STEP2. Payments which comply with specified standards may be submitted as data files to STEP2 by participants up to 10 pm. The payments of each participant are sorted overnight by STEP2 and sent out from 7.30 am on the morning of the next business day to a bank linked to STEP2 in the country of the receiver (direct participant). Since this bank uses national clearing for forwarding, all the receiving banks can be reached. It is envisaged that incoming and outgoing payments will be settled through the mechanisms established for the EBA's individual payment system Euro1 (use of TARGET). Pilot operation is scheduled to commence in the first quarter of 2003.

Linking the Bundesbank to STEP2

The Bundesbank is planning a linkage to the EBA's STEP2 system for clearing cross-border euro retail payments in the EU. The Bundesbank will thus be acting as a direct participant in STEP2 for both incoming and outgoing payments. This means that credit institutions, too, may be linked via the Bundesbank to STEP2 as indirect participants if they so wish. Technically, the Bundesbank will participate in STEP2 via its RPS. The international standard SWIFT message format MT 103+ for fully automated cross-border payments is to be used for this purpose.

Bundesbank's objectives

By participating in STEP2, the Bundesbank will be pursuing the following objectives

- To offer competitively neutral access to European retail payments, particularly to small and medium-sized credit institutions in a manner similar to the Bundesbank's complementary role in domestic retail payments.

- To settle its own orders cost-effectively.

- To shorten transit times in European retail payments.

Particular role of the Bundesbank

As seen by the EBA as the system operator of STEP2 and as seen by large sections of the German banking industry, the Bundesbank is to assume mainly the role of a "preferred agent" for Germany. STEP2 credit transfers destined for German credit institutions that cannot otherwise be reached via STEP2 would be sent out via RPS. The argument in favour of the Bundesbank taking on this role is that all credit institutions in Germany can have the STEP2 payments intended for them delivered via the RPS on the same day that they are sent out by the EBA.

Date of introduction

The Bundesbank plans to participate in STEP2 by the end of 2003.

(c) Contingency planning for payment and settlement systems

Existing contingency plans ...

Before the events of 11 September 2001, existing contingency plans for payments were generally confined to possible technical problems in individual systems or buildings and to general organisational measures for the event of an emergency (such as evacuation plans). Hitherto, events on a larger scale involving the non-availability or even loss of an entire location and/or qualified staff have not normally featured in such plans.

... have to be reassessed against the backdrop of 11 September 2001

Following the events of 11 September 2001, existing contingency planning measures for payment and settlement systems have to be reassessed. This is the subject of in-depth discussion in various working groups and task forces of the European System of Central Banks and at the G-10 level. Nationally, this is an issue which is being dealt with by a working group on "crisis management in payment and settlement systems", which is under the direction of the Bundesbank and was set up jointly by the central associations of the banking industry and the Bundesbank in 2002.

The activities of this working group focus on contingency planning for the RTGS^{plus} and TARGET systems for the settlement of national and cross-border large-value payments. However, comparable attention is to be devoted to the other major market infrastructures and to the other players of outstanding relevance to the stability of the financial markets. The short-term aim of the working group is to construct a communications infrastructure for the event of crisis which is adapted to new threat scenarios as well as to ensure that procedures involving the organisational and technical aspects of payments are available for the rapid provision of adequate liquidity.

(d) Statutory measures for combating money laundering and against the financing of terrorism

International activities ...

As a consequence of the terrorist attacks on the World Trade Center on 11 September 2001, a number of measures for combating terrorism have been agreed internationally which are to be translated into national law.

... are being reflected in national legislation

Particular emphasis is being placed on measures which put a stop to the flows of funds in international terrorism and which combat money laundering. In this context, particular mention should be made of the work of the Financial Action Task Force on Money Laundering (FATF), which published eight special recommendations on combating terrorist financing on 31 October 2001. Special Recommendation No 7, which concerns quite abstractly worded arrangements for the settlement of payments, was translated by the German parliament into national law as part of the Act to Improve the Combating of Money Laundering and to Combat the Financing of Terrorism of 8 August 2002.

Particular organisational duties in cross-border payments

A new section 25b has been inserted into the German Banking Act imposing particular obligations, from 1 July 2003, on institutions involved in cross-border payments (recording and passing on of customer information by the first-commissioned institution, checking and unchanged transmission of such data by intermediary institutions).

Automated access to account information

Furthermore, the new section 24c of the Banking Act provided for by the Fourth Financial Market Promotion Act has created the legal basis for the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht; BaFin) to gain automated access, from 1 April 2003, to certain account information on the accounts and safe custody deposits held at the credit institutions. The institutions concerned will have to take the technical and organisational steps required to ensure that they do not gain knowledge of the Federal Financial Supervisory Authority's data retrievals.

Scope of application widened to include the Bundesbank

The Bundesbank has been included explicitly in the scope of application of these two laws, even though it is generally not subject to the provisions of the Banking Act. Appropriate measures have been initiated within the Bundesbank to implement these new statutory requirements.

(e) Electronic money

Implementation of the E-Money Directive

Directive 2000/46/EC of the European Parliament and the Council on the taking up, pursuit of and prudential supervision of the business of electronic money institutions was translated into national law by the Fourth Financial Market Promotion Act, which entered into force on 1 July 2002.

E-money institutions as a new type of credit institution

Section 1 (3d) sentence 4 of the Banking Act provides that e-money institutions are credit institutions which solely conduct e-money business, without specifying that this business may be conducted only by these specialised credit institutions. Pursuant to section 2 (5) of the Banking Act, such institutions may be subjected to less stringent supervisory rules. Furthermore, what were previously known as prepaid card business and network money business have been combined and called e-money business, which now encompasses the issuance and administration of electronic money (section 1 (1) sentence 2 number 11 of the Banking Act). All prepaid value units stored on electronic data media in the form of a claim against the issuing agency and which are accepted by third parties as a medium of payment without being legal tender are deemed to be electronic money (section 1 (14) of the Banking Act).

Prudential relief

The provisions of the “European Passport” are being applied to e-money institutions as well. Since this means that German e-money institutions are in competition with similar institutions based in other EEA countries, the prudential supervisory exemptions granted by the E-Money Directive to institutions issuing only electronic money had to be adopted. For example, the minimum initial capital for e-money institutions was set at €1 million by section 33 (1) sentence 1 number 1(e) of the Banking Act. The investment limitations for safeguarding the liquidity of e-money institutions still have to be implemented.

Redemption of e-money

Finally, section 22a of the Banking Act stipulates that holders of electronic money can demand its redemption at par value in coins and notes or by a credit transfer to an account if the minimum threshold of €10 is exceeded.

Still no breakthrough

In terms of its transaction volume in Germany, the use of e-money is stagnating at a relatively low level and it is not possible to tell at present whether a much wider use can be expected. The considerable potential of the more than 67 million chips with a GeldKarte function in Germany has remained largely unexploited owing to a lack of acceptance on the part of service providers and card owners, even though there has now been a steady rise in the number of transactions to what is likely to have been more than 30 million in 2002. However, there has been a marked decline recently in the average value per transaction, which is close to €2. This means that the GeldKarte is being used largely – as envisaged – in the segment of very small payments.

Monitoring the security level of the GeldKarte

Examining the security level of the GeldKarte in cooperation with the Federal Office for Security in Information Technology is one of the activities performed by the Bundesbank in monitoring payments in terms of their security and efficiency.

(f) Activities at the G-10 level

Monitoring of the CLS (Continuous Linked Settlement) system

The CLS (Continuous Linked Settlement) system is a global settlement system for forex trading, which settles transactions in accordance with the payment-versus-payment (PVP) principle through accounts of the CLS Bank in New York, which has been established specifically for this purpose. As a result of synchronised settlement, the settlement risks involved in forex transactions are significantly reduced. Following some delays in the development phase, this private system was successfully launched in September 2002. In an initial phase, transactions in seven currencies (Australian dollar, Canadian dollar, euro, pound sterling, Swiss franc, US dollar and yen) can be settled via CLS. The CLS Bank plans to include six other currencies (Danish krone, Norwegian krone, Swedish krona, Hong Kong dollar, New Zealand dollar and Singapore dollar). The CLS Bank maintains an account at the ECB for the settlement of euro payments. The participants' payments in euro to the CLS Bank and the CLS Bank's outgoing payments in euro to the participants are made via TARGET.

Primary responsibility for overseeing the payments of CLS lies with the Federal Reserve Bank of New York. As envisaged in the Lamfalussy Report,[1] the other central banks whose currencies are settled via CLS are involved in cooperative oversight. This oversight is exercised by a working group of the Committee on

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

Payment and Settlement Systems (CPSS) of the Group of Ten Countries at the Bank for International Settlements (BIS), in which the Bundesbank is also represented. The development and implementation of the CLS system was thus followed very attentively by the Bundesbank. As part of the work accompanying the CLS project, a meeting of the representatives of the Eurosystem and CLS shareholders resident in the euro area was held in 2002 in order to discuss issues of liquidity management and the operational settlement of CLS payments in euro via TARGET. The Bundesbank has dealt with these aspects at the national level in close cooperation with the German CLS banks in order to ensure that due account is taken of the concern to reduce risks in the launch and ongoing operations of the system.

4 Impact of structural reform on payments

Reorganisation of cashless payments

As part of the structural reform process, the Executive Board of the Bundesbank has taken major decisions that will also affect the future organisation of cashless payments. The guiding principle that work on policy issues should be performed at Central Office and that technical and operational activities be assigned to the regional offices and branches will bring perceptible changes from 2003 onwards.

Concentration and centralisation at units across the country

The restructuring in cashless payments aims to avoid the duplication and parallel performance of operations as well as the amount of coordination resulting, above all, from decentralisation. Over the medium term, costs are to be reduced considerably by achieving synergies and economies of scale. This will be accomplished mainly by combining and concentrating certain tasks and functions at selected branches and regional offices, ie by creating centralised units across the country. To do this, service centres which perform specialised functions for the bank as a whole will be set up at specific regional offices.

Increase in staffing levels for crisis management and oversight

Simultaneously, there will be a reorientation and streamlining of the functions at Central Office, and (as far as this is required by market developments and legislative provisions) an increase in staffing levels in some areas. This will primarily affect contingency and crisis management as well as the oversight of payments, which is becoming increasingly important in the international context, too. (See also pages 130-131 and pages 132-133)

Large-value payments now completely integrated at Central Office

Large-value payments in the form of TARGET, RTGS^{plus} – the administration of which used to be located at the Frankfurt Regional Office – and foreign payments were combined at Central Office before the end of 2002. This permits a much better link with the policy sphere – in preparing the future strategy and architecture for TARGET, for example. Crisis management and customer service are also made much easier. The policy issues associated with securities settlement, the settlement of the bank's own trading transactions and the oversight of securities clearing and settlement systems likewise remain at Central Office.

Establishment of three service centres

At the operational level, two service centres are being set up for cashless payments and securities settlement. These are being physically located at two regional offices but will be managed by the Payments Department at Central Office. The "Computer Centre/Retail Payment System – Operations" service centre, located in Düsseldorf, is where the automatic settlement of retail payments is being concentrated. The "Central Securities Settlement and Safe Custody" service centre is being established at the Frankfurt Regional Office. This will take over the operational side of settlement business from Central Office and the other regional offices. In Düsseldorf, too, the development of application procedures has been transferred to the "Cashless Payments and Account Management Projects" service centre, which is already up and running and is also managed by the Payments Department at Central Office.

Tasks of the branches largely unchanged

In future, the involvement of the other regional offices in cashless payments will be confined to organisational support for their branches. The branches themselves will still be responsible for account management with the customers (in particular, credit institutions and public cash offices), which means that their tasks in this respect will remain unaffected. Additionally, however, a "Central Service Contact Point", which is to provide customer support after the end of branch business hours and on public holidays, is to be set up at the Frankfurt branch.

III Securities clearing and settlement

2002 assessment methodology

In November 2002, the Central Banks of the Group of Ten Countries and the International Organization of Securities Commissions (IOSCO), with the participation of the IMF and the World Bank, released an assessment methodology for the recommendations for securities settlement systems published by CPSS-IOSCO in 2001. National authorities responsible for the regulation and oversight of securities settlement systems (SSSs) are to use this methodology to assess whether the recommendations have been implemented and, if not, whether plans of action for their implementation have been drawn up. These recommendations constitute minimum standards for SSSs. The methodology is also used by the IMF and the World Bank as guidance in their advisory functions and tests, such as those undertaken as part of the Financial Sector Assessment Program (see pages 101-102).

European developments: implementation of the CPSS-IOSCO recommendations

A new working group has been established for the implementation of the CPSS-IOSCO recommendations in the countries of the European Union. The working group consists of representatives of the ECB, the 15 national central banks of the ESCB, the national securities regulators represented on the Committee of European Securities Regulators (CESR) and, as an observer, the European Commission. The planned adaptation of the minimum requirements to the circumstances of the countries in the European Union, with the incorporation of existing EU standards, is intended to entrench and strengthen those standards. Furthermore, it is designed to achieve a further harmonisation of the European settlement arrangements and thus promote efficiency in the cross-border settlement of securities transactions.

Role of the Bundesbank

The Bundesbank is attentively following all activities and operations, thus fulfilling its oversight function and creating a feedback loop with business operations in the financial markets.

IV The Bundesbank's money-market and refinancing operations as part of the Eurosystem

Counterparties ...

Participation in the Eurosystem's monetary policy operations is conditional on credit institutions having counterparty status. Counterparties comprise all financially sound institutions which are subject to the minimum reserve requirements stipulated in Article 19.1 of the Statute of the ESCB. In Germany the number of these institutions decreased last year (as in the preceding years) from 2,526 to 2,363 as a result of ongoing mergers in the banking industry. Consequently, at the end of the year Germany accounted for around 35% of the just over 6,900 counterparties in the euro area.

... for regular open market operations

In order to have access to monetary policy operations, counterparties must also satisfy certain operational requirements. The number of German institutions entitled to participate in the regular open market operations decreased last year from 1,476 to 1,387 (in the Eurosystem as a whole, there were some 2,300 such institutions at the end of 2002). Specifically, an average of 200 bidders from the Bundesbank's area participated in the weekly main refinancing operations last year, with 133 taking part in the monthly longer-term refinancing operations (Eurosystem: 307 and 186 respectively). Hence participation in the standard tenders fell both in Germany and in the Eurosystem as a whole last year (in 2001 there were 274 bidders for the main refinancing operations and 166 bidders for the longer-term refinancing operations in Germany; in the Eurosystem as a whole, the respective figures were 404 and 225). As in previous years, the decline was presumably due both to the process of consolidation in the banking industry and to the centralisation of Treasury operations.

... for standing facilities

Access to the two standing facilities – the marginal lending facility and the deposit facility – is open only to institutions which fulfil their minimum reserve requirements themselves, that is to say, which do not use an intermediary institution to do so. The number of institutions with access to the marginal lending facility fell from 2,003 to 1,836 in the course of the year (in the Eurosystem as a whole, there were around 2,900 such institutions at the end of 2002). During 2002, access to the deposit facility in Germany declined from 2,324 to 2,187 institutions (Eurosystem as a whole: just over 3,200 institutions at the end of 2002).

... for fine-tuning operations

On account of the more stringent operational and technical requirements involved, only a small group of institutions can be considered for fine-tuning operations. A major selection criterion is a credit institution's activity in the money market or the foreign exchange market. At present, the Bundesbank could, in case of need, call on a maximum of 41 counterparties for money market operations and 15 for foreign exchange market operations (Eurosystem as a whole: 141 and 74 institutions respectively at the end of 2002).

Main refinancing operations

The main refinancing operations (main tenders) with standard maturities of two weeks continue to be the key monetary policy instrument used by the Eurosystem for its money market management. These operations are conducted at weekly intervals and, on an annual average, meet around 70% of central bank money requirements. In all, 49 open market operations were conducted in 2002 in the form of variable rate tenders with a minimum bid rate of 3.25% and (in four cases) of 2.75%. The amount outstanding in the Eurosystem averaged €132 billion during the year, just under half of which (€65.8 billion) was accounted for by German banks. The large German share was mainly due to the relatively high demand for banknotes at the Bundesbank.

Longer-term refinancing operations

To provide basis refinancing, longer-term refinancing operations with a three-month maturity were offered at monthly intervals. Altogether, 12 such "basis tenders" with a preannounced volume were conducted in 2002 – as American-style (multiple rate) auctions. The volume outstanding averaged €54.8 billion during the year, ie around 30% of the aggregate refinancing needs. The German share averaged around two-thirds.

Fine-tuning operations

In connection with the introduction of euro banknotes and coins, there were two fine-tuning operations at the start of the fourth year of European economic and monetary union (EMU). In order to accommodate, in terms of liquidity, the unexpectedly sharp increase in the volume of banknotes in circulation, the ECB conducted two quick tenders on 4 and 10 January 2002; these took the form of variable rate tenders (with a maturity of three days and one day respectively) at a minimum bid rate of 3.25%. Owing to underbidding in the main tender on 18 December, the ECB resolved the liquidity situation on 18 December with a six-day "quick variable rate tender" at a minimum bid rate of 2.75%.

Marginal lending facility

The marginal lending facility is designed to provide overnight liquidity, which counterparties can obtain at any time on their own initiative and in amounts limited only by the collateral available to them ("standing facility"). As a daily average in 2002, only €0.3 billion was used in the Eurosystem for this facility, the Bundesbank's share being €0.2 billion. The highest take-up followed the unexpected underbidding for the main tender conducted on 18 December. Although the Eurosystem responded with a liquidity-providing quick tender for €10 billion (18 to 23 December), owing to liquidity withdrawals from the market being heavier than projected, there was very extensive recourse to the marginal lending facility on 23 December with €18.7 billion at the Eurosystem and €15.1 billion at the Bundesbank.

Deposit facility

The deposit facility enables credit institutions to lodge excess liquidity with the central bank overnight at an interest rate below the main tender rate. As a daily average in 2002, recourse to this facility at the Eurosystem amounted to €0.2 billion and recourse at the Bundesbank to €0.2 billion. Except for isolated cases due to technical problems in settling payments or special features in cash management, recourse to the deposit facility was concentrated at the end of the reserve maintenance periods, which, naturally enough, is determined by the banks' final liquidity-management decisions. For the Eurosystem, the highest level of recourse, at €7.1 billion, was reached on 23 January 2002 (the Bundesbank accounting for €1.8 billion of that amount); for the Bundesbank alone, the highest level, at €4.6 billion, was reached on 21 January 2002.

Consultation procedures relating to the monetary policy instruments

In autumn 2002, three measures intended to enhance the efficiency of the monetary policy instruments were put forward by the Eurosystem for discussion in a public consultation procedure. The proposed changes aimed, first, to reduce the probability of underbidding in main refinancing operations (after the risk of speculative underbidding in main tenders had been mitigated in summer 2000 by the changeover from volume tenders to variable rate tenders with a minimum bid rate). Second, the possibility of consolidating the range of monetary policy instruments was considered.

Proposed adjustment of the monetary policy framework

One proposal was that the reserve maintenance period should start on the settlement day of the main refinancing operation immediately following the meeting of the Governing Council of the ECB at which the monetary policy stance is discussed; that is usually the first meeting in the month. An adjustment of the interest rates on the standing facilities would likewise not become effective until the start of a reserve maintenance period. In order to eliminate almost completely the impact which the expectation of an interest rate change might have on the bidding behaviour within a maintenance period, consideration was given to the complementary measure of shortening the maturity of the main refinancing operations to one week. The maturity of a main tender would therefore no longer hang over into the subsequent maintenance period. The adjustment of the reserve maintenance period would also ensure that the said period would always begin on a TARGET business day and would end on a TARGET holiday in exceptional cases only; the banks' costs relating to reserve management would thus also be reduced. The issue of suspending the longer-term refinancing operations was also presented for discussion, as one of the original objectives of these operations had not been achieved, ie as a matter of priority, to offer institutions operating less extensively in the money market a source of refinancing at the central bank that is easier for them to handle.

Views of the banking industry

Most credit institutions as well as banking and financial market associations in the euro area welcomed the proposed adjustment to the reserve maintenance period. The implementation costs for the institutions were estimated as minimal. In particular, emphasis was placed on the cost advantages arising from the fact that the start of the maintenance period would always coincide with TARGET business days; the end of the maintenance period would almost always coincide. The idea of shortening the maturity of the main refinancing operations met with a fairly unfavourable response as an isolated measure but was felt to be useful as a means of further enhancing the flexibility of the maintenance period, thus contributing to the effective prevention of underbidding. However, it was stressed that if only one main tender were outstanding at any given time, the credit institutions might be inclined to make higher interest rate bids in order to secure an allocation. Suspension of the longer-term refinancing operations was rejected almost unanimously. In explaining their reasons for this, the institutions pointed to the important role played by the longer-term refinancing operations in forward-looking and diversified liquidity planning, especially in periods of heightened uncertainty and in the event of the maturity of the main tender being shortened.

Decision of the Governing Council of the ECB

On 23 January 2003 the Governing Council of the ECB decided to retain the longer-term refinancing operations and to implement the aforementioned changes to the reserve maintenance period and to the maturity of the main refinancing operations in the first quarter of 2004.

Range of assets eligible as collateral for refinancing operations

The Bundesbank accepts a broad range of assets as collateral for the Eurosystem's monetary policy operations. These assets are divided into two categories: "tier one assets" comprise only marketable debt instruments which satisfy uniform, euro-area-wide eligibility criteria laid down by the ECB; "tier two assets" encompass other marketable collateral and non-marketable debt instruments whose eligibility criteria are defined by the national central banks on the basis of minimum eligibility standards specified by the ECB. The Bundesbank's list of eligible tier two assets includes mainly non-marketable debt instruments in the shape of trade bills and bank loans. The residual maturity of such assets, when accepted by the Bank, may not be less than one month; it may not exceed six months in the case of bills of exchange, or two years in the case of bank loans. The debtors of the bills or loans must be business enterprises in the non-financial sector or self-employed persons and be domiciled in Germany. Eligibility for central bank refinancing is verified by the Bank primarily by referring to their annual accounts.

List of eligible assets

The list of assets eligible as collateral for refinancing operations is published by the ECB on the internet (www.ecb.int). The list gives details of each type of (marketable) eligible asset. At the end of December 2002, the outstanding volume of marketable eligible assets amounted to some €6,900 billion. Just over one-third of that amount was accounted for by eligible assets held in Germany.

Volume of eligible assets pledged to the Bundesbank

At the end of 2002, counterparties had eligible assets totalling €415 billion pledged in their collateral pools at the Bundesbank as cover for refinancing operations (and intraday loans in the context of settling payments). That figure included €110 billion of assets held in another member state and made available across national borders for refinancing purposes at the Bank. As in the previous year, just under half of the assets pledged to the Bank consisted of covered bank debt securities (Pfandbriefe). Roughly one-quarter was accounted for by Federal bonds and one-fifth by uncovered bank debt securities. Compared with the preceding year, that signifies a distinct shift in favour of Federal bonds and away from covered bank debt securities (Pfandbriefe). Less than one-tenth of the total was made up of other marketable assets and lending to the private sector (approximately 17,000 bills of exchange and 5,000 bank loans, amounting in all to €6.5 billion).

V The Bundesbank's involvement in the issuance of Federal securities and in asset management

Section 20 (2) of the Bundesbank Act repealed

Section 20 (2) of the Bundesbank Act – pursuant to which the Federal Government, Federal special funds and *Land* governments were to issue debt securities and Treasury bills primarily through the Deutsche Bundesbank – was repealed by virtue of the Seventh Act amending the Bundesbank Act, which entered into force on 30 April 2002. However, as the Federal Government's fiscal agent, the Bundesbank still carries out tasks related to the issue and settlement of Federal securities. In 2002 the Bundesbank continued to carry out, on behalf of the German Finance Agency (Federal Republic of Germany – Financial Agency Ltd) and for the account of the Federal Government, auctions of marketable Federal securities, was involved in sales of Federal tap issues and conducted price regulation operations and sales of the amounts set aside for market management operations through the eight German stock exchanges. Since May 2002, however,

Bund Issues Auction Group
List of members, ranked according to their shares in the weighted amounts allotted in 2002

Table 16

Ranking		Ranking	
1	Deutsche Bank AG	21	DZ Bank AG Deutsche Zentral-Genossenschaftsbank
2	Dresdner Bank AG	22	Norddeutsche Landesbank Girozentrale
3	Morgan Stanley Bank AG	23	Barclays Bank PLC Frankfurt Branch
4	Bayerische Landesbank	24	DekaBank Deutsche Girozentrale
5	Goldman, Sachs & Co oHG	25	Baden-Württembergische Bank AG
6	BNP Paribas Niederlassung Frankfurt am Main	26	Bremer Landesbank Kreditanstalt Oldenburg – Girozentrale
7	Bayerische Hypo- und Vereinsbank AG	27	SEB AG
8	Credit Suisse First Boston (Europe) Ltd Niederlassung Frankfurt	28	J P Morgan Securities Ltd Frankfurt Branch
9	Salomon Brothers AG	29	Bankgesellschaft Berlin AG
10	UBS Warburg AG	30	Lehman Brothers Bankhaus AG
11	ABN AMRO Bank (Deutschland) AG	31	Société Générale SA Zweigniederlassung Frankfurt am Main
12	WestLB AG	32	Landesbank Sachsen Girozentrale
13	Commerzbank AG	33	Landesbank Berlin – Girozentrale
14	ING BHF-Bank AG	34	Hesse Newman & CO (AG & Co) Kommanditgesellschaft
15	Merrill Lynch Capital Markets Bank Limited Zweigniederlassung Frankfurt am Main	35	Nomura Bank (Deutschland) GmbH
16	Landesbank Baden-Württemberg	36	SANPAOLO IMI SpA Filiale Frankfurt am Main
17	Landesbank Hessen-Thüringen Girozentrale	37	Stadtsparkasse Köln
18	Deutsche Postbank AG	38	Reuschel & Co KG
19	HSBC Trinkaus und Burkhardt KGaA	39	Vereins- und Westbank AG
20	Hamburgische Landesbank – Girozentrale		

Nordea Bank A/S Niederlassung Frankfurt am Main and The Royal Bank of Scotland Frankfurt Branch are not included in the ranking list; they were only added to the Auction Group in the second half of 2002.

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sales of the amounts set aside for market management operations through Eurex Bonds (the electronic trading system of the Deutsche Börse AG) have been executed by the Finance Agency.

Moreover, the Bank continues to be represented on the Committee for Public Sector Credit Issues, on which the bond-issuing requirements of central, state and local government are coordinated and questions concerning issuing techniques are discussed. In addition, it is still involved in the Central Capital Market Committee and in a number of other national and international committees in which capital market and stock market matters in the broader sense are addressed.

Bund Issues Auction Group

Since 1998, Federal bonds (Bunds), five-year Federal notes (Bobls) (after the conclusion of sales as tap issues), Federal Treasury notes (Schätze) and Treasury discount paper (Bubills) have all been issued by auction through the Bund Issues Auction Group. Membership of this group is conditional on sufficient placing power. That condition is deemed to be met if at least 0.05% of the issue volume allotted by auction in a calendar year, weighted by maturity, is taken up. When determining an institution's placing power, the weighting factors should reflect the differing capital commitments and interest exposures associated with the various maturities. In 2002 the weighting factors were 1 for Bubills, 4 for Schätze, 8 for Bobls, 15 for 10-year Bunds and 25 for 30-year Bunds; the same factors will continue to apply in 2003.

In 2002 €157.7 billion worth of Federal securities were issued through the Bund Issues Auction Group in 28 auctions (2001: €106.1 billion in 17 auctions). Besides the issuance of Federal securities by auction, amounts set aside for market management operations were placed through the stock exchanges. A list of Auction Group members, ranked according to their shares in the maturity-weighted allotment volume, is published every year. At the beginning of 2002 there were 42 institutions in the Auction Group. Three new members joined in 2002, two of which were added only in the second half of the year and have therefore not been included in the ranking list. The number of members went down to 41 at the beginning of 2003 because four institutions were withdrawn at the end of 2002 due to insufficient placing power.

Federal bond issuance

As part of the auctions conducted by the Bundesbank, €58.0 billion of Federal bonds (Bunds) were issued in 2002 (2001: €38.0 billion). By reopening issues using the auction procedure and by selling amounts set aside for market management operations, issue volumes of up to €27 billion were reached.

Stripping

The volume of bonds whose principal and interest may be separated ("stripped") amounted to €325.4 billion at the end of the year; approximately €3.2 billion of these bonds were held in stripped form.

Five-year Federal notes

The volume of five-year Federal notes (Bobls) issued in 2002 came to €38.0 billion (2001: €27.5 billion); allotments in the auction procedure and amounts set aside for market management operations accounted for €37.2 billion of that volume and sales as tap issues for €0.8 billion. The issue pattern and issue concept for Bobls are to be changed in 2003. Three series – instead of two – will be issued by auction per year in February, May and October and each will be

Issues of Federal bonds (Bunds) in 2002

Table 17

Issue	Auction date	Amount issued (€ billion) Total	of which: Amount allotted by auction	of which: Market management amount	Terms: Nominal interest rate (% pa)	Maturity (years/months)	Weighted average price (%)	Average yield (% pa)
Federal Government (WKN 113 517)								
Increase	9 Jan	5.0	4.0	1.0	5.50	29/0	103.44	5.27
Increase	16 July	1 1.0	–	1.0	5.50	28/6	–	–
Federal Government (WKN 113 519)	2 Jan	10.0	8.0	2.0	5.00	10/0	100.57	4.93
Increase	23 Jan	10.0	9.7	0.3	5.00	9/11	101.26	4.84
Increase	24 Apr	5.0	4.7	0.3	5.00	9/8	98.66	5.18
		25.0						
Federal Government (WKN 113 520)	3 July	10.0	9.4	0.6	5.00	10/0	100.61	4.92
Increase	2 Oct	8.0	6.7	1.3	5.00	9/9	104.99	4.36
Increase	6 Nov	9.0	5.9	3.1	5.00	9/8	102.74	4.64
		27.0						

1 Total amount issued: €17 billion.

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Issues of five-year Federal notes (Bobls) in 2002

Table 18

Issue	Amount issued (€ billion) Total	of which: Sales as tap issues	of which: Amount allotted by auction	of which: Market management amount	Terms: Sales as tap issues: Issue prices (%)	Sales as tap issues: Yields (% pa)	Auction procedure: Weighted average price (%)	Auction procedure: Average yield (% pa)	Start of sales as tap issues/ date of stock exchange listing
4% series 139 of 2001 (2007)	9.8	0.1	9.4	0.3	98.60 to 100.05	3.97 to 4.30	97.61	4.53	2 Jan/ 20 Feb
Increase	8.0	–	6.3	1.7	–	–	96.24	4.88	–/15 May
	1 17.8								
4.50% series 140 of 2002 (2007)	10.0	0.5	8.4	1.1	98.75 to 103.30	3.75 to 4.75	102.45	3.93	19 Feb/ 14 Aug
Increase	10.0	–	7.2	2.8	–	–	103.18	3.74	–/20 Nov
	20.0								
4.25% series 141 of 2002 (2008)	0.2	0.2	...	...	100.90 to 104.10	3.35 to 4.05	...	...	13 Aug/...

1 Sales of series 139 began on 21 August 2001. Total amount issued: €18 billion.

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increased in the following month. Starting with series 142, which will first be issued in May 2003, the biannual lead time for sales as tap issues will be discontinued; consequently, the maturity of Bobls will be reduced to a strict five years. Since February 2003 individuals and non-profit institutions have been able to purchase – as a replacement for the discontinued tap issues – the most recent listed Bobls directly for no extra charge from the Federal Securities Administration (*Bundeswertpapierverwaltung*).

Federal Treasury notes

In 2002 a total of €45.0 billion worth of two-year Federal Treasury notes (Schätze) were issued at quarterly intervals (in March, June, September and December) and increased in the following month (2001: €40.0 billion).

Treasury discount paper

Treasury discount paper (Bubills) with maturities of six months issued by the Federal Government at monthly intervals since April 2002 raised €48.6 billion (gross value) in 2002 (the amount outstanding on 31 December 2002 was €28.8 billion).

Market management operations

In 2002 significant amounts raised by the issue of listed Federal securities were again set aside to be injected into the market: €9.6 billion in the case of Bunds, €5.9 billion in the case of Bobls and €7.4 billion in the case of Schätze. A total of €21.4 billion was raised from the sale of market management stocks (2001: €22.8 billion).

Price regulation operations

As in previous years, the Bundesbank carried out price regulation operations (for the account of the issuers) for securities which are officially listed on the German stock exchanges and issued by the Federal Government, its special funds, the Treuhand agency and Deutsche Ausgleichsbank (DtA) and for securities which were issued prior to 1997 by Kreditanstalt für Wiederaufbau (KfW). The Bundesbank also conducted price regulation operations for bonds issued by the German federal state of Lower Saxony and listed on the stock exchanges in Frankfurt am Main and Hanover, and for Deutsche Bundespost securities listed on the Frankfurt stock exchange.

Federal savings notes and Federal Treasury financing paper

In the year under review, the Bundesbank continued to be involved (through credit institutions and its own branches) in sales of Federal savings notes and Federal Treasury financing paper issued on tap. Federal savings notes with maturities of six and seven years and annually rising yields (sold only to individuals and non-profit institutions) raised €2.4 billion in 2002 (2001: €1.9 billion). Issues of Federal Treasury financing paper (issued in the form of discount paper) with

Issues of Federal Treasury notes (Schätze) in 2002

Table 19

Issue	Auction date	Amount issued (€ billion)			Terms			
		Total	*of which* Amount allotted by auction	*of which* Market management amount	Nominal interest rate (% pa)	Maturity (years/ months)	Weighted average price (%)	Average yield (% pa)
BSA (WKN 113 697)	13 Mar	7.0	5.7	1.3	4.25	2/0	100.15	4.17
Increase	3 Apr	5.0	4.4	0.6	4.25	1/11	99.98	4.26
		12.0						
BSA (WKN 113 698)	26 June	7.0	6.2	0.8	4.00	2/0	100.16	3.91
Increase	10 July	5.0	3.7	1.3	4.00	1/11	100.16	3.91
		12.0						
BSA (WKN 113 699)	25 Sep	7.0	6.0	1.0	3.25	2/0	100.22	3.13
Increase	16 Oct	5.0	4.3	0.7	3.25	1/11	99.94	3.28
		12.0						
BSA (WKN 113 700)	11 Dec	9.0	7.3	1.7	3.00	2/0	100.06	2.97

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Issues of Treasury discount paper (Bubills) in 2002

Table 20

Issue	Auction date	Amount issued (€ billion)	Terms: Weighted average price (%)	Terms: Average yield (% pa)
January 2002 (WKN 111 441)	14 Jan	5.0	98.411	3.19
April 2002 (WKN 111 442)	15 Apr	4.9	98.317	3.39
May 2002 (WKN 111 443)	13 May	5.0	98.273	3.48
June 2002 (WKN 111 444)	10 June	4.9	98.248	3.53
July 2002 (WKN 111 445)	15 July	4.9	98.317	3.39
August 2002 (WKN 111 446)	12 Aug	5.0	98.389	3.24
September 2002 (WKN 111 447)	16 Sep	4.9	98.483	3.17
October 2002 (WKN 111 448)	14 Oct	4.9	98.480	3.05
November 2002 (WKN 111 449)	11 Nov	4.5	98.536	2.94
December 2002 (WKN 111 450)	9 Dec	4.6	98.567	2.77

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Issues of Federal savings notes in 2002

Table 21

Issue	Sales period 2002	Sales (€ million) Total	Federal savings notes, Type A	Federal savings notes, Type B	Nominal interest rate (% pa)	Final yields (% pa) Type A	Type B
2002 / 1 + 2	2 Jan - 4 Mar	445	372	73	2.75 - 5.00	3.83	4.03
2002 / 3 + 4	4 Mar - 31 May	543	448	95	3.00 - 5.25	4.04	4.25
2002 / 5 + 6	31 May - 1 July	202	166	36	3.00 - 6.00	4.23	4.53
2002 / 7 + 8	1 July - 31 July	222	186	36	3.00 - 6.00	4.03	4.35
2002 / 9 + 10	31 July - 5 Sep	249	203	46	2.75 - 5.75	3.86	4.17
2002 / 11 + 12	5 Sep - 8 Oct	311	273	38	2.50 - 5.25	3.50	3.78
2002 / 13 + 14	8 Oct - 30 Dec	430	340	90	2.00 - 5.50	3.32	3.67

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maturities of one year and two years represented a total volume of €1.4 billion (2001: €1.3 billion).

Pension reserves of central and state governments

Given the evident demographic changes, pension payments to civil servants are set to rise sharply in the future. In order to safeguard these payments, Parliament, in adopting the 1998 Pension Reform Act (*Versorgungsreformgesetz*), decided to accumulate central and state government pension reserves in the form of special funds based on contributions from the recipients of civil service pay and pensions. The "Act on a Federal Government pension reserve" *(Gesetz über eine Versorgungsrücklage des Bundes)* based on the Pension Reform Act entered into force at the beginning of 1999; in order to safeguard pension expenditure, this Act provided for a special fund called the "Federal Government pension reserve" *(Versorgungsrücklage des Bundes)* to be established under the jurisdiction of the Federal Ministry of the Interior. Taking account of the 2001 Pension Amendment Act *(Versorgungsänderungsgesetz)*, which entered into force on 1 January 2002, these resources are to be used over a period of 15 years from 2017 onwards to progressively ease the burden of pension payments. The Bundesbank was entrusted, under the aforementioned "Act on a Federal Government pension reserve", to manage the resources in this special fund.

Total transfers of resources to the "Federal Government Pension Reserve" amounted to €181 million in 2002. In accordance with the investment guidelines laid down by the Federal Ministry of the Interior and the Federal Ministry of Finance, in agreement with the Federal Ministry of Labour and Social Affairs, the Bundesbank invested those resources in marketable Federal debt securities.

At the end of 2002, the market value of this special fund was approximately €435 million.

The *Land* governments are also required to accumulate pension reserves in the form of special funds. On the basis of a number of different regulations, the management of the funds in such pension reserves has been assigned to specific Regional Offices of the Bundesbank.

Monetary Stability Foundation

In 2001, pursuant to the Act concerning the Minting of a DM1 Gold Coin and the Establishment of the Monetary Stability Foundation *(Stiftung Geld und Währung)* of 27 December 2000, the Bundesbank issued gold coins with a face value of DM1. Of total net receipts from sales of those gold coins (€94.3 million), €51.1 million was transferred to the Monetary Stability Foundation which was established on 1 January 2002. The remainder accrued to the Prussian Cultural Heritage Foundation and is earmarked for the refurbishment of Museum Island in Berlin. One of the objectives of the Monetary Stability Foundation is to support economic and juridical research, especially in the fields of monetary and currency systems, in order to maintain and enhance the public's awareness of the significance of monetary stability.

The foundation's assets are managed by the Bundesbank, the aim being to generate the highest possible returns as regularly as possible in order to cover the foundation's expenditure while at the same time maintaining the real value of the foundation's assets. In line with these principles, the assets are invested in blue-chip, euro-denominated, fixed interest securities and equities.

Central bank service, euro portfolio

In consultation with the European Central Bank, the Bundesbank is currently restructuring the services it offers to foreign central banks and supranational institutions in the area of reserve management. This restructuring is a response to the growing interest among these particular customers in increasing investment in euro-denominated assets.

Furthermore, towards the end of the year under review, the Bundesbank took an initial step towards establishing its own securities portfolio. This portfolio is made up of investments in euro-denominated, fixed interest, AAA-rated securities which serve as an asset-side counterpart to the Bundesbank's pension provisions.

VI The Bundesbank's participation in banking supervision and changes in banking supervision legislation

1 International harmonisation of banking supervision

In the year under review, the Bundesbank again contributed, through its involvement in international committees and working groups, to improving the supervision of credit institutions and financial services institutions.

(a) Activities in connection with the Basel Committee on Banking Supervision

Accounting: revision of IAS 32 and IAS 39

In the year under review, the Basel Committee on Banking Supervision submitted an opinion to the International Accounting Standards Board (IASB) on the proposed amendments to the accounting standards IAS 32 (Financial Instruments: Disclosure and Presentation) and IAS 39 (Financial Instruments: Recognition and Measurement). The proposed amendments concern, amongst other matters, the rules governing the measurement and derecognition of financial instruments. The Basel Committee is of the opinion that a revision of the complex IAS 39 provisions on hedge accounting is appropriate. The hedge accounting rules should offer no room for manoeuvre with regard to the recording of income, but should nevertheless take into account and not hinder the banks' use of appropriate risk management methods. In the Basel Committee's opinion, this would also mean that the fair value designation option proposed by the IASB could be avoided. The issue of allowing firms to choose fair value designation raises questions already discussed in previous years as part of proposals for comprehensive fair value designation and which – according to the Basel Committee – were not able to be resolved satisfactorily, for example, the fair value approach for loans and liabilities. Moreover, allowing firms to make choices of this kind would basically impair the ability to compare financial statements. The Basel Committee does, however, support the IASB's proposals concerning the prudent valuation of loans. In a joint opinion submitted to the IASB, the Federal Financial Supervisory Authority and the Bundesbank likewise pointed out the critical issues relating to a revision of IAS 39.

Transparency: the third pillar of the new Basel Capital Accord

In the year under review, the disclosure requirements in Pillar 3 of the new Basel Capital Accord (Basel II) were further elaborated on the basis of the "Working Paper on Pillar 3 – Market Discipline" of September 2001. In doing so, the banking industry's opinions on the working paper and developments in the field of accounting, in particular, were taken into consideration. In order to continue its dialogue with the banking industry, in December 2002, the Basel Committee drafted a new working paper and made it available to selected sections of the banking industry ("Draft Paper: The Third Pillar – Market Discipline"). Unlike in the previous working paper, the disclosure rules for securitisation transactions were rewritten. Various other areas were simplified. The structure of the working paper of September 2001 was retained. The banking industry's opinions on the current working paper will be incorporated into work to be done on the third consultative paper.

Disclosure practices of big banks

In May 2002, the Basel Committee reported the results of the regular survey of disclosure practices in the annual reports and financial statements of a selection of internationally operating banks ("Public disclosures by banks: results of the 2000 disclosure survey"). Some major German banks also took part in the survey.

(b) Harmonisation and cooperation in the European Union

Supervision of financial conglomerates

At its meeting of 20 November 2002, the European Parliament adopted – in its second reading – the proposal for a directive on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate. In the preceding consultations of the Council of the European Union, it was determined that, in addition to the Commission's proposal, undertakings for collective investment in transferable securities should also be included in the scope of consolidated supervision of credit institutions and investment firms as well as in the supplementary supervision of insurance undertakings in insurance groups and should, where appropriate, also be supervised as a company in a financial conglomerate. This means that groups operating in the banking, securities and insurance sectors are subject to comprehensive supervision with regard to their capital adequacy, potential risk concentration and intra-group transactions within a financial group. Furthermore, the appointment of a coordinator from amongst the competent supervisory authorities is intended to facilitate the supervision of a financial conglomerate. The more comprehensive supervision provisions referred to in Directive 2002/87/EC of 16 December 2002 shall first apply to the financial statements for the financial year beginning on 1 January 2005 or, if the financial year differs from the calendar year, for the financial year beginning in that year.

Revision of the European capital requirements

The task of revising the capital requirements for credit institutions and securities trading firms remains a focal point of the European Commission's harmonisation efforts. In close harmony with the work of the Basel Committee, the European Commission is likewise pursuing a concept based on minimum capital requirements, a supervisory review process and increased market discipline. In November 2002, the European Commission posted a working document describing the current state of work on the new capital requirements directive on the internet for discussion. The Commission's aim in doing so was to set in motion an exchange of views with interested parties regarding the fundamental differences in comparison with the Basel Committee's proposals. The outcome of this dialogue is to be taken into account in the third EU consultative paper, which is due to be published this year, probably at the same time as the third consultative paper of the Basel Committee.

"Groupe de Contact"

In 2002, the Bundesbank continued to work at an EU level in the "Groupe de Contact" of the European Union's banking supervisory authorities. This working group, in which banking supervisors from the member states have been meeting for more than 30 years, can be described as the nucleus of cross-border banking supervision in the European Union. In the year under review, the group's most important project concerned further preparatory work for a directive to implement Basel II. The principal aim of this work was to establish convergence with Pillar 2 of the Basel Capital Accord ("Supervisory Review Process").

2 Amendments to national banking supervision legislation

Act concerning the Integrated Supervision of Financial Services

The Federal Financial Supervisory Authority was created on 1 May 2002 by the Act concerning the Integrated Supervision of Financial Services of 22 April 2002 (Federal Law Gazette I No 25 of 25 April 2002, p 1310) by amalgamating the Federal Banking Supervisory Office, the Federal Supervisory Office for Insurance Enterprises and the Federal Supervisory Office for Securities Trading. At the same time, the Bundesbank was assigned certain tasks in connection with the supervision of credit institutions and financial services institutions pursuant to the revised version of section 7 of the Banking Act. On 30 October 2002, the Federal Financial Supervisory Authority and the Bundesbank concluded a cooperation agreement to give definite shape to these statutory provisions. A major objective of this agreement is to avoid a duplication of activities in supervising credit institutions and financial services institutions as well as to guarantee that supervision is of a high quality.

Fourth Financial Market Promotion Act

Numerous provisions in banking supervision legislation were amended by the Fourth Financial Market Promotion Act of 21 June 2002 (Federal Law Gazette I No 39 of 26 June 2002, p 2010). The main aim of the amendments to the Banking Act was to bring it into line with the Basel Core Principles for Effective Banking Supervision published in 1997 (compliance with these Core Principles has been/will be monitored in Germany in February and April 2003 by the International Monetary Fund [IMF] as part of its Financial Sector Assessment Program) and to implement Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions into German law. Credit card business was included in supervision as a financial service as a means of preventing money laundering. Other supervisory measures were also put into practice, such as harmonising the relevant provisions on monitoring shareholders in the Banking Act and the Insurance Supervision Act as well as – at the instigation of the Bundesbank – modernising the reporting system for loans of €1.5 million or more.

Implementation of EU directives

Despite the very extensive amendments made to the Banking Act by the Fourth Financial Market Promotion Act, further changes will continue to be made prior to the implementation of Basel II into German law. The Directive on the reorganisation and winding up of credit institutions (2001/24/EC) and the Directive of the European Parliament on financial conglomerates (see page 150) are to be implemented into German law beforehand. Both of the directives amending the investment fund directive (Directive on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities) (2001/107/EC and 2001/108/EC), which the Council already passed in December 2001, have to be implemented into German law by mid-August 2003. This will make a fundamental revision of the Act on Investment Companies necessary.

"Minimum requirements for the credit business of credit institutions"

On 20 December 2002, the Federal Financial Supervisory Authority published a set of "Minimum requirements for the credit business of credit institutions" – drawn up jointly by the Federal Financial Supervisory Authority and the Bundesbank – by way of circular 34/2002. The "Minimum requirements for the credit business of credit institutions" have taken banking supervision yet another step closer to qualitative supervision, as they have placed a greater supervisory focus on credit risk management, the institutions' capital base, compliance with the rules governing the disclosure of the borrowers' financial situation, the provisions governing loans to managers or closely connected companies and large exposure limits. The "Minimum requirements" apply to all credit institutions in

Germany, including their branches located abroad. The scope of application of the circular essentially covers all lending operations within the meaning of section 19 (1) of the Banking Act (asset items and off-balance-sheet transactions entailing a counterparty credit risk) and transactions with country risk. The credit institutions must implement the "Minimum requirements" by 30 June 2004 (first stage of implementation). The necessary adjustments to IT systems and procedures must be completed no later than 31 December 2005 (second stage).

3 Ongoing banking supervision operations

Further decline in number of credit institutions ...

At the end of 2002, the Bundesbank had registered 2,615 domestic credit institutions for supervisory purposes. For the first time, this number includes 47 securities trading banks which are subject to normal banking supervision, but which have up to now been included in the figures for financial service providers owing to the focus of their business activities (underwriting business and broking services). There was a net decrease of 164 institutions suggesting that the concentration process in the German banking sector was slower in 2002 than in earlier years (net decrease of 226 institutions in 1999, 257 in 2000 and 213 in 2001). A total of 186 credit institutions closed down, mostly owing to mergers. This figure includes 131 credit cooperatives and 22 savings banks. The decrease was somewhat offset by 22 newly registered institutions, mainly branch offices of banks domiciled in another European Economic Area country, regional banks and investment companies, whose number decreased to 80 despite the establishment of several new companies (there were 83 in 2001).

... and financial services institutions

In the year under review, the selection process with regard to domestic enterprises with licences to provide financial services pursuant to section 1 (1a) of the Banking Act continued. The number of these institutions, with regard to which supervision primarily involves checking whether the notification and reporting regulations laid down in the Banking Act are being complied with, fell from 1,043 to 906 (including the recategorisation of securities trading banks).

Ongoing supervision in accordance with the Banking Act

The Bundesbank's Regional Offices ("Hauptverwaltungen", formerly Land Central Banks) are, as a rule, responsible for the ongoing monitoring of institutions pursuant to section 7 (1) of the Banking Act. The ongoing monitoring of institutions specifically includes checking and evaluating all of the documents submitted by institutions – in particular, prudential reports, audit reports and annual financial statements – as well as performing and evaluating on-site audits, in-

Ongoing banking supervision operations Table 22

Number of operations conducted

Item	1999	2000	2001	2002
Individual reports pursuant to sections 13 to 14 of the Banking Act	251,735	241,128	207,633	206,971
Single borrowers included in the summary reports submitted pursuant to sections 13 to 14 of the Banking Act	2,002,459	2,276,548	2,274,007	2,314,292
Reports pursuant to sections 24 and 24a of the Banking Act	43,091	46,847	40,597	47,585
Monthly returns pursuant to section 25 of the Banking Act	46,301	45,164	43,931	42,992
Reports on the volume of foreign lending (country risk) pursuant to section 25 (3) of the Banking Act	271	264	265	270
Audit reports on annual accounts	2,690	3,718	3,490	3,378
Reports on the auditing of safe custody accounts	511	731	700	614
Routine, special and deposit guarantee fund audit reports	1,510	1,538	1,894	1,887
Audits pursuant to sections 44 and 44c of the Banking Act	92	74	74	69
Audit reports on the special funds of investment companies	828	1,175	970	1,431
Reports from investment companies on their activities	4,897	6,110	6,655	6,635
Reports under Principle I	39,733	38,128	34,579	32,846
Reports under Principle II	63,342	42,629	33,118	31,617
Audits of internal risk models	19	11	10	8
Reports under the Basel Capital Accord	92	84	84	76

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cluding appraising the audit findings. As a rule, the Federal Financial Supervisory Authority bases its regulatory measures on the Bundesbank's findings and appraisals from ongoing supervision. Table 22 provides information about the number of documents processed by the Regional Offices and the audits conducted, if necessary, with the help of Central Office staff.

Change in responsibilities

Pursuant to the amended Bundesbank Act which entered into force at the end of April 2002 and the streamlining of the Bundesbank structure which this enabled, the five nationally operating credit institutions, which were formerly monitored centrally, now also fall within the sphere of regional responsibility.

Credit register of loans of €1.5 million or more

The number of loans of €1.5 million or more to be reported quarterly pursuant to section 14 of the Banking Act increased slightly in the 12 months from 30 September 2001 to 30 September 2002 to around 526,500 reports (the following table shows developments since 1997). The total volume of reported loans of €1.5 million or more was almost €7.2 trillion on the reporting date of 30 September 2002 and thus around 1% up on the year. On the reporting date of 30 September 2002, 2,777 institutions, 1,075 financial enterprises and 621 insurance enterprises had submitted reports on loans of €1.5 million or more.

Credit register of loans of €1.5 million or more

Table 23

Third quarter	Volume of loans of €1.5 million or more: € billion	Volume of loans of €1.5 million or more: Change (%)	Number of loans of €1.5 million or more reported: Number	Number of loans of €1.5 million or more reported: Change (%)	Number of reporting insti-tutions 1	Number of reporting financial enterprises	Number of reporting insurance enterprises
1997	4,119	+ 20.3	446,146	+ 9.9	3,635	893	584
1998	4,790	+ 16.3	464,507	+ 4.1	3,496	963	607
1999	5,662	+ 18.2	484,443	+ 4.2	3,355	900	626
2000	6,487	+ 14.6	509,567	+ 5.2	3,129	993	645
2001	7,087	+ 9.2	525,020	+ 2.9	2,946	995	644
2002	7,161	+ 1.0	526,552	+ 0.3	2,777	1,075	621

1 Credit institutions and financial services institutions.

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The Bundesbank's central credit register ascertains each borrower's aggregate debt on the basis of the reports submitted and notifies the individual lending institutions of this figure. The number of borrowers notified to lenders on the reporting date of 30 September 2002 amounted to 392,718. Around two-thirds of the borrowers were amalgamated into 80,298 single borrower units pursuant to section 19 (2) of the Banking Act. At the end of September 2002, 168 borrowers/single borrower units had debts exceeding €1.5 billion; the aggregate indebtedness of those borrowers amounted to almost €560 billion, which represents 7.8% of reported total borrowing. Around 58% of reported total borrowing (almost €4.2 trillion) was taken up by domestic borrowers.

Insolvencies

In 2002, the credit register recorded a total of 3,007 insolvencies of enterprises and individuals which or who, at the time of their insolvency being announced, had outstanding loans of €1.5 million or more pursuant to section 14 of the Banking Act. This was 954 cases more than in 2001 (+46.5%). The volume of loans of €1.5 million or more reported for insolvent borrowers amounted to around €22.2 billion, which was more than double the amount for 2001.

International cooperation between European central credit registers

The entry into force of the Fourth Financial Market Promotion Act on 1 July 2002 established the legal basis for Germany's participation in the planned cross-border exchange of information between the central credit registers in seven EU countries, namely Austria, Belgium, France, Germany, Italy, Portugal and Spain. The aim of this exchange of information between the aforementioned credit registers is to give commercial banks access to the information on their borrowers' indebtedness stored by the other European credit registers and, thus, to increase transparency. The Working Group on Credit Registers, which reports to the Banking Supervision Committee (BSC) of the European System of

Central Banks, has drawn up an appropriate Memorandum of Understanding and developed a technical and organisational concept for carrying out the cross-border exchange of information between credit registers. The Memorandum of Understanding was approved by the BSC in December 2002 and signed by the governors of the seven central banks with a credit register in February 2003. The organisational and IT infrastructure for the cross-border exchange of information will be established in the next two years.

Principle I

The EU harmonised minimum capital requirements for credit institutions and financial services institutions were implemented into national law by means of Principle I pursuant to sections 10 and 10a of the Banking Act. Principle I stipulates that the own funds of institutions – both individual institutions and groups of institutions/financial holding groups – must amount to at least 8% of the relevant risk positions (credit risks, counterparty risks or market price risks). Credit risks or counterparty risks, which are classified and weighted in individual standardised creditworthiness categories, are to be backed by liable capital (core capital and additional capital). In the case of market risk positions, for which the capital charge can be calculated using either various standardised procedures defined by supervisors or accepted internal risk management models, tier 3 funds can also be included.

Capital ratios

On 31 December 2002, the capital ratio – which reflects the ratio of weighted risk assets to liable capital – of single institutions was 12.7% on average (2001: 12%). Groups of institutions/financial holding groups submitting Principle I reports on a consolidated basis had an average ratio of 11.3% (2001: 11.5%). On 31 December 2002, the overall ratio – which gives the ratio of all positions that have to be backed by capital to eligible own funds – of institutions reporting on an individual basis was 11.9% on average (2001: 11.3%). Groups of institutions/financial holding groups had an average overall ratio of 9.7% (2001: 10.5%). At 92%, weighted risk assets accounted for by far the largest share of risk positions to be backed by capital. The average capital ratios and overall ratios of various German banking categories are shown in Chart 26.

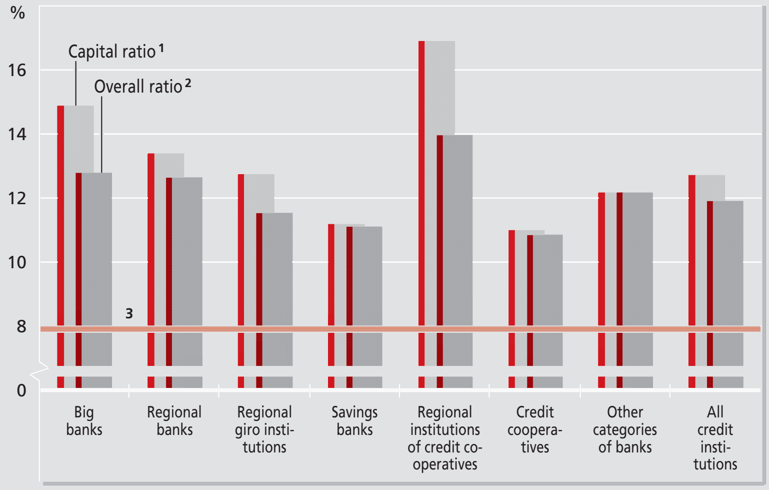
Principle II

The underlying concept of the supervisory liquidity standard Principle II is to match the payment assets of credit institutions and certain financial services institutions with their payment liabilities according to residual maturity by grouping them in four different maturity bands. An institution is deemed to satisfy the prudential liquidity requirements if its liquidity ratio, as determined every month, is at least 1. The liquidity ratio is the ratio of the institution's means of payment

Ratio of the liable capital and liable own funds of individual institutions submitting Principle I reports *

Chart 26

End-2002 levels



* Credit institutions and financial services institutions on a non-consolidated basis. — 1 Capital ratio = (liable capital ÷ weighted risk assets) x 100. — 2 Overall ratio = (eligible own funds ÷ (weighted risk assets + capital charges for market risk x 12.5)) x 100. — 3 According to Principle I, the minimum percentage for both ratios is 8%.

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available in the following month to its potential liquidity outflows. It must be noted that the various kinds of refinancing are subject to different levels of withdrawal risk and that diverse weightings are applicable. The use of different refinancing structures in the individual banking categories can, therefore, make a direct comparison of liquidity ratios more difficult.

Liquidity ratios

On 31 December 2002, the average liquidity ratio of German banking institutions was 1.38 (2001: 1.39). Chart 27 shows the average liquidity ratios of various German banking categories on 31 December 2002 and a comparison with 2001.

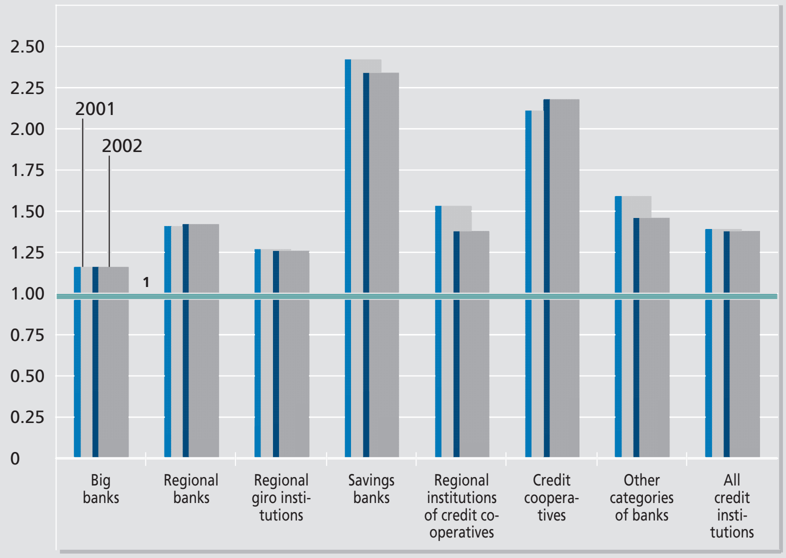
Prosecution of unauthorised banking and financial services business

Within the framework of the Fourth Financial Market Promotion Act, the legislature has amended the existing instruments and defined the current regulations more clearly in order to counteract irregularities on the so-called "grey" capital market. In their efforts to prosecute unauthorised banking and financial services business, the Federal Financial Supervisory Authority and the Bundesbank work together closely in their investigations and on-site audits. The Bundesbank's Regional Offices process and evaluate the documents and then pass on the findings to the Federal Financial Supervisory Authority for final processing.

Liquidity ratio of individual institutions submitting Principle II reports*

Chart 27

End-of-year levels



* Credit institutions and financial services institutions on a non-consolidated basis. Liquidity ratio = total payment assets ÷ total payment liabilities. — **1** According to Principle II, the required minimum liquidity ratio is 1.0.

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Audits of banks' internal risk measurement and management models

Pursuant to section 10 of the Banking Act, Principle I allows institutions to use their own models for calculating the regulatory capital required to cover their market price risk provided that the Federal Financial Supervisory Authority has – at the institutions' request – examined and confirmed the models' suitability. In 2002, initial audits and follow-up audits were carried out together with the Federal Financial Supervisory Authority. In recent years, however, the emphasis of the audits has shifted increasingly towards follow-up audits. In 2002, one institution was authorised for the first time to calculate the partial capital charge ("partial use") for market price risk using its internal model. Another institution received confirmation of suitability for amendments to its model as well as its extension with regard to the special price risk of interest rate net positions.

Improved quality of models

In 2002, audits lasting several weeks as well as a number of supervisory visits to institutions lasting one or several days were carried out. Improvements were found at several institutions, which meant that the additional factors for the capital charge in excess of the general multiplication factor of 3 applied at these institutions could be reduced in some cases.

VII UN/EU financial sanctions: new developments

Financial sanctions – parties concerned

Restrictions currently in force in Germany on the movement of capital and payments (legally established financial sanctions) apply primarily to persons and organisations connected with Osama bin Laden, the Taliban and the al-Qaeda network or serve to combat terrorism. Further financial sanctions continue to apply against Burma/Myanmar, the Federal Republic of Yugoslavia, Iraq, Libya and Zimbabwe. As a general rule, these legal acts freeze the financial resources of the parties concerned and prohibit making funds available to them.

Basic principles

Some of these measures are based on United Nations requirements while others have been enacted directly by the European Union. Notwithstanding, the directly applicable rules are part of Community law; this does not apply, however, to financial sanctions against Iraq and Libya which were introduced before the Maastricht Treaty entered into force and are still governed by national law.[1]

UN sanctions against Osama bin Laden, the Taliban and the al-Qaeda network

Several amendments were made to financial and other sanctions against the Taliban of Afghanistan in 2001 and 2002; these sanctions were based on UN Security Council Resolution No 1333/2000 and were intensified by virtue of Council Regulation (EC) No 467/2001.[2] Following the change of government in Kabul, this Regulation was replaced by Council Regulation (EC) No 881/2002.[3] In addition to changes of substance which concern areas other than capital movements and payments, the list of designated persons and entities was amended, limiting the sanctions to persons and organisations linked with Osama bin Laden, the Taliban and the al-Qaeda network; in particular, restrictions have been lifted from Afghan public bodies. The list of persons and entities affected by the sanctions, which forms Annex I of Council Regulation (EC) No 881/2002, was changed eight times in the course of the year.[4]

UN sanctions to combat terrorism

UN sanctions have been implemented in the Community by means of Council Regulation (EC) No 2580/2001 of 27 December 2001 on specific restrictive measures directed against certain persons and entities with a view to combating terrorism.[5] The

1 Further information on the regulatory structure, legal basis and key contents of these legal acts is given in the Deutsche Bundesbank's *Annual Report 2001*, pp 170-174. The German version of the legal acts can be found under "Financial sanctions" on the Bundesbank's website (www.bundesbank.de).
2 Of 6 March 2001, OJ L 67 p 1.
3 Of 27 May 2002, OJ L 139 p 9.
4 Most recently by Commission Regulation (EC) No 2083/2002 of 22 November 2002, OJ L 319 p 22.
5 OJ L 344 p 70.

persons and entities to which this Regulation applies have been determined separately by the Council – most recently in its Decision of 12 December 2002.[1]

The competent authorities in the member states may grant authorisations to unfreeze funds. In Germany the competent authority is the Deutsche Bundesbank. Applications have to be made to the appropriate Regional Office of the Deutsche Bundesbank.

UN sanctions against Angola (UNITA)

The UN financial sanctions against Angola (UNITA) initially implemented by Council Regulation (EC) No 1705/98[2] were amended in 2002 by Commission Regulations (EC) No 271/2002[3] and No 689/2002.[4] The financial sanctions were repealed by Council Regulation (EC) No 146/2003[5] with effect from 20 December 2002.

UN sanctions against Iraq

The UN financial sanctions against Iraq continue to apply unchanged. They make certain payments or transfers of assets, access to bank accounts, safe custody deposits or other assets managed or held in safe custody and belonging to Iraq, official bodies in Iraq or their authorised representatives subject to authorisation by the Bundesbank. Applications for authorisation have to be addressed to the appropriate Regional Office of the Deutsche Bundesbank.

UN sanctions against Libya

No decision has yet been taken on lifting the UN financial sanctions against Libya (section 69n of the Foreign Trade and Payments Regulation). These were suspended with effect from 5 April 1999.

EU sanctions against Yugoslavia

The financial sanctions against the Federal Republic of Yugoslavia continue to apply unchanged. They were initially limited to Slobodan Milosovic and some 650 of his close associates in November 2000[6] before being limited to Slobodan Milosovic and 12 other persons on 21 June 2001.[7] The European Commission alone may grant exemptions for humanitarian purposes. Applications have to be made to the Commission through the appropriate Regional Office of the Deutsche Bundesbank.

1 2002/974/EC, OJ L No 337 p 85.
2 Of 28 July 1998, OJ L 215 p 1.
3 Of 14 February 2002, OJ L 45 p 16.
4 Of 22 April 2002, OJ L 106 p 8.
5 Of 27 January 2003, OJ L 24 p 1.
6 Council Regulation (EC) No 2488/2000 of 10 November 2000, OJ L 287 p 19.
7 Commission Regulation (EC) No 1205/2001 of 19 June 2001, OJ L 163 p 14.

EU sanctions against Zimbabwe

New EU financial sanctions were imposed on Zimbabwe and entered into force in 2002. Council Regulation (EC) No 310/2002,[1] last amended by Regulation No 1643/2002,[2] orders all funds, other financial assets or economic resources belonging to the addressees listed in the Regulation to be frozen and prohibits funds, financial assets or economic resources from being made available directly or indirectly to or for the benefit of those persons or entities. The Bundesbank may grant exceptions in respect of the Zimbabwe sanctions. Applications for authorisation have to be addressed to the appropriate Regional Office of the Deutsche Bundesbank.

EU sanctions against Burma/ Myanmar

The list of persons affected by the EU sanctions imposed on Burma/Myanmar in 2000[3] was updated in October 2002.[4]

VIII The Economic Research Centre

Last year the Economic Research Centre continued to pursue its strategy of carrying out its own research projects and publishing the results, maintaining a running dialogue with external scholars, for example through conferences and workshops, and keeping its active research staff abreast of the latest knowledge through relevant training courses. The macroeconometric structural model being managed at the research centre was further enhanced in order to improve the research centre's ability to fulfil its tasks within the Bundesbank and the ESCB.

Publication of discussion papers ...

The research centre published 31 discussion papers in 2002, once again surpassing its total from the previous year. Most of these papers are the result of research projects conducted by Bundesbank staff. Some of them, though, were written by outside researchers who worked at the Bundesbank on temporary assignments.

... focusing on a variety of topics

The discussion papers focus on several topics. The transmission mechanism of monetary policy measures and – in connection with that – the way monetary policy should be conducted, an example being the choice of indicators on which

1 Of 18 February 2002, OJ L 50 p 4.
2 Of 13 September 2002, OJ L 247 p 22.
3 Council Regulation (EC) No 1081/2000 of 22 May 2000, OJ L 122 p 29.
4 Commission Regulation (EC) No 1883/2002 of 22 October 2002, OJ L 285 p 17.

it should be based, constitute one of the topics covered. Various projects on the influence of monetary policy on the investment behaviour of German enterprises come under this area of research. Interest rates may be assumed to influence investment; yet other variables, such as cash flow, are also important. Another question was how market interest rates and the banks' lending rates are correlated. Several discussion papers cover the role of the money stock in a central bank's strategy. One model showed, for example, that monetary targeting performs better than a Taylor rule if an economy's long-term characteristics are included. One of these characteristics is that the capital stock grows over time. A whole range of research dealt with the workings of the German financial system. Such projects help to analyse potential threats to financial market stability. One paper, for instance, studied the issue of how seriously contagion effects resulting from the integration of banks and spread through the money market must be taken. Finally, several papers were devoted to international topics such as the calculation of the statistical distribution of expectations regarding the effects of option prices on exchange rates or the impact of intervention on foreign exchange markets. Some of these papers were delivered at conferences outside the Bundesbank or were published in economic journals or similar publications.

Spring conference on direct investment

As in previous years, the research centre either held or co-hosted conferences and workshops. The Bundesbank's fourth spring conference was dedicated to direct investment in the real economy and the financial sector. The increasing international integration of economies is raising numerous questions for economic policymakers in general and monetary policymakers in particular. What causes enterprises to invest abroad? What makes a country attractive to foreign investors? What are the consequences of direct investment for growth and employment in the home country and the host country? Has European monetary union promoted banks' cross-border activities? What changes can be expected from EU enlargement to the east? Such questions were discussed by international scholars as well as representatives from commercial banks. All in all, the conference saw direct investment in a positive light. One workshop was dedicated to the topic of "computational methods in economics and finance". Finally, the research centre was involved in preparing a conference held by the new Monetary Stability Foundation on the topic of "Institutions for monetary stability". In addition, the research centre regularly organises seminars at the Bundesbank and is co-host of a seminar series at the ECB.

The Bundesbank's macroeconomic structure model is managed by the Economic Research Centre. This model serves as an aid in developing forecasts and also

Progress in developing the Bundesbank's macroeconomic model

serves to improve the ability to gauge the consequences of certain policy measures or of shocks which can hit the economy. Such a macro model needs to be revised and updated constantly. The main modifications made last year were designed to enable the model to be used more effectively in the ESCB-wide forecasting process. A highlight of these modifications was the development of a special forecast version for the Germany block of the multi-country model.

IX Technical central bank cooperation

Ten years of technical central bank cooperation

In the year under review the Technical Central Bank Cooperation Division was able to look back on ten years of successful and ever-growing activity as a partner in the development and enhancement of effective central banking structures for central banks in developing countries, emerging market economies and transition countries. Since 1992 over 15,000 central bankers from central and eastern Europe, Asia, Africa and South America have taken part in nearly 1,600 Bundesbank training events. Managers from nearly 100 central banks have come to know the Bundesbank as a competent and reliable cooperation partner. In addition, Bundesbank staff have been on numerous consultancy assignments abroad and have been members of international expert teams, sometimes under the auspices of the International Monetary Fund. The unabated worldwide demand for central bank consultancy suggests that the Bundesbank's services will probably continue to arouse the interest of foreign central banks in the years to come.

Joint cooperation with foreign central banks free of charge

The Bundesbank advises other central banks on technical matters on a close partnership basis and does not charge fees for its services. Support is given especially to those central banks which take the initiative and come to the Bundesbank with requests that are stated with a maximum of clarity. The array of participants embodies all aspects of modern central bank management, ie the optimal use of economic, operational and legal instruments. The primary target group consists of fairly young, well-trained staff from partner central banks in middle or senior management positions who have already accumulated a certain wealth of experience and have the necessary development potential.

The Bundesbank's technical central bank cooperation facility offers a wide range of opportunities. The Bundesbank conducts international central banking sem-

Various technical central bank cooperation activities in the Bundesbank's core competencies

inars which cover key aspects of central banking operations in a general manner; up to 30 central banks may send a delegate to attend each seminar. If individual partner central banks have their own specific issues that need to be addressed, customised specialist seminars, in which the relevant approaches and experience of the Bundesbank is covered, are arranged for groups of staff members either in the country concerned or in Germany. However, if an exchange of experience between experts is desired, specialist visits by foreign central bankers to the Bundesbank's relevant operating units are arranged. Bundesbank experts are also available for on-site consultancy assignments to address specific projects or problems.

Sharp rise in number of training courses

In 2002 over 2,000 central bankers from more than 70 countries took part in around 180 Bundesbank training courses. Compared with the previous year this is a 10% increase in the number of events. However, this year, as in the year before, it was impossible to fulfil all the requests submitted by our partner central banks for specialist seminars and specialist visits. Last year some 400 members of central bank management staff from all over the world took part in a total of 13 "international central banking seminars".

24 central banks sought Bundesbank advisory services

Last year 24 countries sought advisory services from the Bundesbank. Interest in the Bundesbank's activities was not shown only by traditional partner countries in central and east Europe but also by several African central banks. The involvement of Bundesbank experts in rebuilding the Afghan central bank presented a particular challenge: three members of staff provided comprehensive technical support towards the successful introduction of the new Afghan currency.

X Organisation and staff

Reduction in core staff

By closing more branches – at the end of the year 118 branches remained – and by terminating the employment contracts of temporary employees hired for the introduction of euro banknotes and coins, the number of core staff was reduced by 438 employees to 15,213. Owing to a change in the structure of tasks, 369 employment contracts at the regional and branch offices were eliminated. By contrast, the Bundesbank's Central Office saw its staff go up slightly (by 34 persons, or 1.3%).

Impact of the Bundesbank's structural reform on staff numbers

The Executive Board's decisions on structural reform (see pages 114-116) have not had any decisive impact on the Bundesbank's staffing so far. In the near future, however, the changes in the organisation of operations, the new branch strategy and the change in business policy regarding cash services will have a perceptible impact on the Bundesbank's staffing. In order to minimise the effects of these decisions for the Bundesbank's staff, the Executive Board and the main staff representation council have agreed on a package of measures to facilitate the shedding of staff, promote mobility and ensure that employees can obtain qualifications for new areas of deployment.

Number of traineeships largely constant

In 2002 the number of trainees, at 274, was almost the same as in the previous year (-5). There was also little change, at 417, in the number of trainee civil servants and officials changing to a higher civil service career path (+27).

Bundesbank staff at European Central Bank

At the end of the year under review 78 members of the Bundesbank's staff were on secondment to the European Central Bank (ECB). Some of these secondments date back to the time of the European Monetary Institute (EMI), the ECB's predecessor. Most of the seconded members of staff at the ECB are employed at professional and managerial levels.

Part-time work

The Bundesbank endeavours to comply as far as possible with the wishes of its employees regarding part-time work. At 13.3%, the ratio of part-time employees was up once again from the previous year (12.3%). Part-time employees continue to work an average of 57.1% of the hours worked by a full-time employee. If part-time and full-time employees are taken together on the basis of their contractual working hours, the Bundesbank had the equivalent of around 14,346 full-time employees (in 2001 the number was 14,807).

Age-induced part-time work

The regulations governing age-induced part-time work agreed in the wage settlement for public sector employees in 1998 are also applied at the Bundesbank. On 31 December 2002, 794 members of staff were engaged in age-induced part-time work. The vast majority have contracts based on a "phase model", which means that a phase of full-time employment with reduced remuneration is followed by a second pre-retirement phase in which the employee does not work but receives the same (reduced) remuneration as in the previous phase. Three hundred and thirty employees have now entered the second pre-retirement phase.

Bundesbank staff on 31 December 2002 *

Table 24

Item	Staff numbers 1				Changes from previous year			
	Total	Regional offices	Branch offices	Central Office 2	Total	Regional offices	Branch offices	Central Office 2
Civil servants	6,467	2,352	3,056	1,059	– 111	– 21	– 117	+ 27
Salaried staff	8,614	2,252	4,871	1,491	– 298	– 55	– 260	+ 17
Wage earners	753	232	368	153	– 40	– 20	– 21	+ 1
Total	15,834	4,836	8,259	2,703	– 449	– 96	– 398	+ 45
of which Trainee civil servants/other trainees 3	621	206	274	141	– 11	+ 7	– 29	+ 11
Core staff	15,213	4,630	8,021	2,562	– 438	– 103	– 369	+ 34
of which Staff with permanent contracts	14,462	4,584	7,346	2,532	– 256	– 92	– 198	+ 34
Staff with temporary contracts	751	46	675	30	– 182	– 11	– 171	–
Memo item Core staff pro rata	14,345.7	4,425.5	7,482.9	2,437.3	– 471.7	– 108.2	– 388.7	+ 25.2

	End-2002	End-2001
* Not included:		
Members of staff on secondment for 12 months or more	121	114
Members of staff on unpaid leave	656	706
Members of staff in the second phase of the age-induced part-time employment scheme	330	225
1 *Of which* part-time employees	2,019	1,942
2 Including the Bundesbank's University of Applied Sciences		
3 Other members of staff undergoing training: civil servants changing their career path	70	37

Deutsche Bundesbank

Training affected by structural reform

During the year under review the content and organisation of training at the Bundesbank were adapted to the changed circumstances. It was necessary to tailor these measures to the needs of those members of staff who were particulary affected by the changes. The focus was therefore on holding courses to prepare staff for new responsibilities within the Bundesbank.

"Basel II" qualification programme launched

The Bundesbank, as an institution participating in banking supervision, will also be involved in tasks relating to the new Basel Capital Accord, "Basel II". Members of staff therefore have to become well versed in this complex subject matter at an early stage. The programme for Basel II auditors launched last summer is one of the qualification and further training measures for employees announced by the Executive Board as part of the Bundesbank's restructuring. This programme is based on staff members' individual learning needs and dovetails theoretical and practical elements in a suitable manner. During the year under review, a total of 35 seminars on preparations for the Supervisory Review Process were held for a total of around 800 participants from the staff of the Bundesbank and the Federal Financial Supervisory Authority.

Enhanced cooperation in the ESCB

The reporting year saw not only 15 courses on intercultural negotiation skills, in which 214 EU central bank employees took part, but also, for the first time, a seminar on technical ESCB themes which was jointly organised and held by ESCB central banks. In addition, cooperation within the ESCB has been further enhanced in the area of seminars for managerial staff.

"Euro scholarship" students begin studies

For six university students from Austria, Finland, Greece, Ireland, Italy and Spain, the beginning of the 2002-03 winter semester meant the start of a year of study in Frankfurt am Main.

Training in trade and commercial vocations continues

In the area of trade and commercial vocations the Bundesbank intends to concentrate in future on training "office communication assistants". In addition, the Bundesbank is offering training positions throughout Germany for more junior staff than is actually needed in order to help eradicate youth unemployment.

Annual accounts of the Deutsche Bundesbank for 2002

I. Balance sheet of the Deutsche Bundesbank as at 31 December 2002

Assets

				31.12.2001
			€ million	€ million
1	Gold and gold receivables		36,208	35,005
2	Claims on non-euro-area residents denominated in foreign currency			
	2.1 Receivables from the IMF	8,272		(8,721)
	2.2 Balances with banks, portfolio investment, external loans and other external assets	40,525		(49,598)
			48,797	58,320
3	Claims on euro-area residents denominated in foreign currency		—	—
4	Claims on non-euro-area residents denominated in euro		300	300
5	Lending to euro-area credit institutions related to monetary policy operations denominated in euro			
	5.1 Main refinancing operations	87,094		(80,502)
	5.2 Longer-term refinancing operations	36,144		(41,134)
	5.3 Fine-tuning reverse operations	—		(—)
	5.4 Structural reverse operations	—		(—)
	5.5 Marginal lending facility	2,241		(1,413)
			125,479	123,049
6	Other claims on euro-area credit institutions denominated in euro		1	2
7	Securities of euro-area residents denominated in euro		—	—
8	Claims on the Federal Government		4,440	4,440
9	Intra-Eurosystem claims			
	9.1 Participating interest in the ECB	1,225		(1,225)
	9.2 Claims arising from the transfer of foreign reserves to the ECB	12,247		(12,247)
	9.3 Claims related to the allocation of euro banknotes within the Eurosystem (net)	—		(—)
	9.4 Other claims within the Eurosystem (net)	5,036		(—)
			18,507	13,471
10	Items in course of settlement		26	42
11	Other assets			
	11.1 Coins	380		(834)
	11.2 Tangible and intangible fixed assets	2,039		(2,149)
	11.3 Other financial assets	2,454		(51)
	11.4 Off-balance-sheet instrument revaluation differences	—		(—)
	11.5 Accruals and prepaid expenses	1,027		(1,305)
	11.6 Sundry items	425		(1,028)
			6,325	5,367
			240,083	239,997

Liabilities

				31.12.2001
			€ million	€ million
1	Banknotes in circulation		104,543	76,470
2	Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro			
	2.1 Current accounts	44,791		(57,399)
	2.2 Deposit facility	47		(97)
	2.3 Fixed-term deposits	—		(—)
	2.4 Fine-tuning reverse operations	—		(—)
			44,838	57,496
3	Other liabilities to euro-area credit institutions denominated in euro		—	—
4	Liabilities to other euro-area residents denominated in euro			
	4.1 General government deposits	43		(88)
	4.2 Other liabilities	598		(949)
			640	1,037
5	Liabilities to non-euro-area residents denominated in euro		7,128	7,286
6	Liabilities to euro-area residents denominated in foreign currency		11	8
7	Liabilities to non-euro-area residents denominated in foreign currency		1,848	1,419
8	Counterpart of special drawing rights allocated by the IMF		1,570	1,725
9	Intra-Eurosystem liabilities			
	9.1 Liabilities to the ECB arising from promissory notes	—		(—)
	9.2 Liabilities related to the allocation of euro banknotes within the Eurosystem (net)	29,129		(—)
	9.3 Other liabilities within the Eurosystem (net)	—		(30,862)
			29,129	30,862
10	Items in course of settlement		1	7
11	Other liabilities			
	11.1 Off-balance-sheet instruments revaluation differences	—		(—)
	11.2 Accruals and income collected in advance	152		(100)
	11.3 Sundry items	90		(191)
			242	291
12	Provisions		5,506	5,360
13	Revaluation accounts		34,191	41,685
14	Capital and reserves			
	14.1 Capital	2,500		(2,556)
	14.2 Statutory reserves	2,500		(2,556)
			5,000	5,113
15	Distributable profit		5,437	11,238
			240,083	239,997

II. Profit and loss account of the Deutsche Bundesbank for the year 2002

				2001
			€ million	€ million
	– Interest income	6,038		(8,793)
	– Interest expense	– 1,882		(– 2,196)
1	Net interest income		4,156	6,598
	– Realised gains/losses arising from financial operations	2,058		(3,666)
	– Write-downs on financial assets and positions	– 64		(– 77)
	– Transfers to/from provisions for general risks, foreign exchange risks and price risks	68		(2,332)
2	Net result of financial operations, write-downs and risk provisions		2,062	5,921
	– Income from fees and commissions	54		(50)
	– Expense relating to fees and commissions	– 12		(– 41)
3	Net income from fees and commissions		42	9
4	Income from participating interests		639	525
5	Net result arising from allocation of monetary income		41	– 5
6	Other income		60	126
7	**Total net income**		7,000	13,173
8	Staff costs		1,021	1,017
9	Other administrative expenses		316	346
10	Depreciation on tangible and intangible fixed assets		192	206
11	Banknote printing		68	228
12	Other expenses		79	138
13	**Profit for the year**		5,324	11,238

1	**Profit for the year**	5,324	11,238
2	Withdrawals from the statutory reserve	113	—
3	**Distributable profit**	5,437	11,238

Frankfurt am Main, 19 February 2002

DEUTSCHE BUNDESBANK
Executive Board

Ernst Welteke　　Dr Jürgen Stark

Dr Hans Georg Fabritius　　Hans Helmut Kotz　　Edgar Meister　　Dr Hans Reckers

Professor Hermann Remsperger　　Professor Franz-Christoph Zeitler

III. External auditors' report

We have audited the annual accounts, including the bookkeeping, of the Deutsche Bundesbank for the financial year from 1 January 2002 to 31 December 2002. The bookkeeping and the presentation of the annual accounts in accordance with generally accepted accounting principles and the principles for the accounting of the Bundesbank approved by the Executive Board pursuant to section 26 (2) of the Bundesbank Act are the responsibility of the Executive Board of the Deutsche Bundesbank. Our task has been to submit an evaluation of the annual accounts, including the associated bookkeeping, on the basis of the audit we have undertaken.

We have carried out our audit of the annual accounts in accordance with section 317 of the Commercial Code *(Handelsgesetzbuch)* and in conformity with the German principles laid down by the Institute of Auditors *(IDW)* for auditing annual accounts. According to these principles, the audit has to be planned and implemented in such a way that errors and malpractices which materially affect the picture of the Bank's assets and liabilities, financial position and profitability given in the annual accounts in line with generally accepted accounting principles are identified with sufficient certainty. When the audit is being arranged, account is taken of the auditors' knowledge of the Bank's operations and of its economic and legal environment and the likelihood of possible errors. In the course of the audit the effectiveness of the internal control system relating to accounting and documentary evidence for the figures in the accounts and the annual accounts are assessed largely on the basis of samples. The audit comprises the evaluation of the accounting principles applied and of the major estimates made by the Executive Board as well as the assessment of the overall presentation of the annual accounts. We are of the opinion that our audit provides a sufficiently sound basis for our judgement.

Our audit has not revealed any discrepancies.

We are convinced that the annual accounts conform to generally accepted accounting principles and to the principles for the accounting of the Bundesbank and present a picture of the Bank's assets and liabilities, financial position and profitability which is consistent with the actual state of affairs.

Frankfurt am Main, 19 March 2003

Ernst & Young
Deutsche Allgemeine Treuhand AG
Wirtschaftsprüfungsgesellschaft

Graf von Treuberg	Havas
Wirtschaftsprüfer	Wirtschaftsprüfer
(chartered accountant)	(chartered accountant)

Overview of the principles for the accounting of the Deutsche Bundesbank

General accounting principles

Record of economic reality, thus reflecting the Bank's assets and liabilities, financial position and profitability;
prudence;
account to be taken of post-balance-sheet events that affect the balance sheet;
materiality;
going-concern principle;
accruals principle (income and expenditure to be recognised in the accounting period in which they are earned or incurred);
consistency and comparability.

Cash/settlement approach

Recording of spot transactions in gold, foreign currency instruments and securities in the Bank's accounts shall be based on the date of payment (settlement date).

Balance sheet valuation rules

Gold, foreign currency instruments, securities and financial instruments shall be valued at mid-market rates and prices on the balance sheet date.

No distinction shall be made between price and currency revaluation differences for gold, but a single gold revaluation difference shall be accounted for on the basis of the euro price per defined unit of weight of gold derived from the euro-US dollar exchange rate on the balance sheet date.

Revaluation shall take place on a currency-by-currency basis for foreign exchange (including off-balance-sheet transactions).

In the case of securities revaluation shall be on a code-by-code basis (same ISIN number/type).

Repurchase agreements

A repurchase agreement (repo) shall be recorded as a collateralised inward deposit on the liabilities side of the balance sheet while the item that has been given as collateral remains on the assets side of the balance sheet. A reverse repurchase agreement (reverse repo) shall be recorded as a collateralised outward loan on the assets side of the balance sheet for the amount of the loan.

In the case of security lending transactions the assets shall remain in the balance sheet of the transferor.

Income recognition

Realised gains and realised losses shall be taken into the profit and loss account. Unrealised gains shall not be recognised as income but shall be transferred direct to a revaluation account. Unrealised losses shall be taken into the profit and loss account if they exceed previous revaluation gains registered in the corresponding revaluation account. Unrealised losses recorded in the profit and loss account in previous years shall not be reversed in subsequent years in the event of new unrealised gains. There shall be no netting of unrealised losses in any one security, in any currency or in gold holdings against unrealised gains in other securities, currencies or gold.

Premiums or discounts arising on purchased securities shall be treated as part of interest income and shall be amortised using either the straight line method or the implicit rate of return method. The implicit rate of return method shall be used in the case of zero-coupon bonds with a residual maturity of more than one year at the time of acquisition.

Accrual and deferral items covering foreign currency holdings must be converted at the mid-market rate at the end of the year and reversed at the same rate. Realised gains and losses can arise only in the case of transactions which result in a change in a foreign currency position.

The average cost method shall be used on a daily basis for calculating the acquisition cost in the case of assets that are subject to exchange rate and/or price movements. The average cost price or rate of the assets shall be reduced by unrealised losses taken into the profit and loss account at the end of the year.

Accounting rules for off-balance-sheet instruments
Foreign exchange forward transactions, the forward legs of foreign exchange swaps and other currency instruments involving an exchange of one currency for another at a future date shall be included in the foreign currency position.

Interest rate swaps, futures, forward rate agreements and other interest rate instruments shall be accounted for and revalued on an item-by-item basis.

Gains and losses arising from off-balance-sheet instruments shall be recognised and treated in a similar manner to on-balance-sheet instruments.

Provisions
The regulations set out in the Commercial Code continue to apply to the reporting of provisions in the balance sheet. Pursuant to section 26 (2) of the Bundesbank Act, the creation of liability items for general risks associated with domestic and foreign business remains unaffected.

Transitory rules
The assets and liabilities shown in the closing Deutsche Mark balance sheet of 31 December 1998 shall be revalued on 1 January 1999. Unrealised gains arising on or before 1 January 1999 are to be recorded separately from the unrealised gains which arise after 1 January 1999. The market rates/prices applied by the Bank in the euro-denominated opening balance sheet of 1 January 1999 shall be deemed to be the average acquisition rates/prices as at 1 January 1999. The revaluation items for unrealised gains accruing on or before 1 January 1999 shall be dissolved only in connection with decreases in value and in the event of disposals after 1 January 1999.

IV General information on annual accounts

Legal basis

Sections 26, 27 and 45 of the Bundesbank Act, as last amended by Article 1 numbers 20 and 30 of the Seventh Act amending the Bundesbank Act of 23 March 2002 (Federal Law Gazette I, page 1159), form the legal basis for the annual accounts and the distribution of profit. In accordance with the provisions on accounting laid down in the second sentence of section 26 (2), the Bundesbank may apply the accounting principles governing the annual accounts of the ECB.

Accounting principles of the Bundesbank

The Governing Council of the ECB adopted the principles it applies to its annual accounts in accordance with Article 26.2 of the ESCB Statute. The (former) Central Bank Council of the Deutsche Bundesbank decided to adopt those principles as the "accounting principles of the Deutsche Bundesbank"[1] (decision of 3 December 1998, amended by the decisions of 9 March 2000 and 28 December 2000 as well as by that of the Executive Board of 18 December 2002). An overview of the principles for the accounting of the Deutsche Bundesbank is given above.

Breakdown

On 5 December 2002 the Governing Council of the ECB adopted amendments to the provisions governing financial statements, and the Bundesbank has integrated these amendments into its own accounting provisions (decision of the Executive Board of 18 December 2002). The changes relating to the breakdown of the balance sheet concern the extension of asset item 9 "Intra-Eurosystem claims" and liability item 9 "Intra-Eurosystem liabilities" to include a sub-item in each case covering the claims and liabilities arising from the issue of euro banknotes (new asset sub-item 9.3 and new liability sub-item 9.2). The new items serve to record the intra-Eurosystem balances which arise as a result of the decisions taken by the Governing Council of the ECB on 6 December 2001 and regarding the issue of euro banknotes and the allocation of monetary income.

Notes on balance sheet entry of euro banknotes and associated intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem

The ECB and the 12 national central banks of the participating member states, which together comprise the Eurosystem, have been issuing euro banknotes since 1 January 2002. The following procedure was approved for recording the euro banknotes in circulation in the financial statements of the central banks in the Eurosystem.[2] The total value of euro banknotes in circulation is allocated to Eurosystem central banks on the last working day of each month in accordance

1 Published as a revised edition in Bundesbank Notice No 10001/2003 of 14 January 2003.
2 Decision of the European Central Bank of 6 December 2001 on the issue of euro banknotes (ECB/2001/15).

with the banknote allocation key. The ECB has been allocated an 8% share of the total value of the euro banknotes in circulation whereas the remaining 92% has been allocated to the NCBs according to their weightings in the capital key of the ECB. The Bundesbank has a 27.8% share in accordance with the banknote allocation key. This is equivalent to 92% of the Bundesbank's share (30.2%) in the paid-up capital of the ECB. The value of the Bundesbank's end-of-year share in the total amount of euro banknotes issued by the Eurosystem is shown in liability item 1 "Banknotes in circulation".

The difference between the value of the euro banknotes allocated to each NCB in accordance with the banknote allocation key and the value of the euro banknotes that it actually puts into circulation also gives rise to remunerated intra-Eurosystem balances.[1] If the value of the euro banknotes issued is greater than the value according to the allocation key, the difference is recorded in the balance sheet in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)". If the value of the euro banknotes issued is less than the value according to the allocation key, the difference is recorded in asset sub-item 9.3 "Claims related to the allocation of euro banknotes within the Eurosystem (net)". These balances are remunerated at the current main refinancing operations rate.

From 2002 until 2007 the intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are being adjusted in order to avoid significant changes in NCBs' relevant income positions from those in previous years. The adjustments are effected by taking into account the differences between the average value of the banknotes which each national central bank had in circulation in the period between July 1999 and June 2001 and the average value of the banknotes which would have been allocated to them during that period in accordance with the ECB's capital key. The adjustments will be reduced in annual stages until the end of 2007, after which income on banknotes will be allocated fully in proportion to the NCBs' paid-up shares in the ECB's capital. The interest income and interest expense arising from the remuneration of the intra-Eurosystem balances are cleared through the accounts of the ECB and are shown in the profit and loss account of the Bundesbank in item 1 "Net interest income".

1 Decision of the European Central Bank of 6 December 2001 on the allocation of monetary income of the national central banks of participating member states from the financial year 2002 (ECB/2001/16).

Furthermore, the ECB's seigniorage income from the allocation of 8% of the euro banknotes in circulation to the ECB is distributed to the national central banks in the form of an interim distribution of profit in the same financial year as the income arose at the ECB.[1] It is distributed in full in proportion to the paid-up shares of the national central banks of the Eurosystem in the ECB capital unless the ECB's net profit for the year is less than the income earned on euro banknotes in circulation. For the financial year 2002 the ECB's income from the banknotes allocated to it was distributed on 3 January 2003. It is shown in item 4 "Income from participating interests" in the Bundesbank's profit and loss account. From 2003 onwards interim distributions will be made after the end of each quarter.

Conversion of capital and reserves to euro

As a result of the amendments to all legal documentation to take account of the introduction of the euro, in Section 2 of the Bundesbank Act, the Bundesbank's capital of DM5 billion was converted to euro and rounded to €2.5 billion. A similar amendment was made to the provisions of Section 27 of the Bundesbank Act, which stipulates how the profit is to be distributed. The amount of the statutory reserves quoted in Section 27, number 1, of the Bundesbank Act was changed from DM5 billion to €2.5 billion. The rounding of the Bank's capital and its reserves means that the Bank's own funds have been reduced by just under €113 million. Pursuant to the transitional provision of Section 45 (3), third sentence, if the first annual accounts following the entry into force of the new Act, ie the annual accounts for 2002, show that the full amount which may legally be held as reserves has been reached, the Bank's net profit will be increased by this amount.

The following calculation arises in the case of the annual accounts for 2002:

	€ thousand
Dissolution of the capital exceeding €2.5 billion	56,459
Previous statutory reserves	2,556,459
Statutory reserves after addition of the dissolution amount	2,612,918
Statutory reserves pursuant to Section 27, number 1, of the Bundesbank Act	2,500,000
Dissolution of the statutory reserves (= transfer to the distributable profit)	112,918

1 Decision of the European Central Bank of 21 November 2002 on the distribution of the income of the European Central Bank on euro banknotes in circulation to the national central banks of the participating member states (ECB/2002/9).

Preparation and auditing of annual accounts

The Executive Board drew up the Bundesbank's annual accounts for the financial year 2002 on 19 February 2003. The annual accounts were audited by Ernst & Young Deutsche Allgemeine Treuhand Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, which the (former) Central Bank Council had appointed as sole external auditors on 14 March 2002 in accordance with Section 26 (3) of the Bundesbank Act. The auditors confirmed without qualification on 19 March 2003 that the Bank's annual accounts for 2002 and its bookkeeping comply with German law and present an accurate picture of the Bank's assets and liabilities, financial position and profitability. After studying the external auditors' report, the Executive Board, on 26 March 2003, approved the transfer of the Bank's profit to the Federal Government and the publication of the annual accounts.

V Notes on the individual balance sheet items

1 Assets

Gold and gold receivables

At the end of 2002 the Bank's holdings of fine gold (ozf) amounted to 111 million ounces. The gold was valued at market prices at the end of the year (1 ozf = €326.83). In the year under review the gold holdings declined by 0.3 million ounces. This was due to the sale of gold to the Federal Government for the purpose of minting gold coins.

Claims on non-euro-area residents denominated in foreign currency

The claims on the International Monetary Fund (IMF) as well as balances with banks, portfolio investment, loans and other foreign currency claims on non-euro-area residents are shown in this item.

Receivables from the IMF

This sub-item contains the claims on the IMF which are financed and held by the Bank and which arise from the Federal Republic of Germany's membership of the IMF. The claims, which total €8,272 million (SDR 6,381 million), consist of drawing rights within the reserve tranche and special drawing rights.

The drawing rights within the reserve tranche correspond to the amounts actually paid to the IMF in gold, special drawing rights (SDRs), foreign exchange and national currency under the German quota. At the end of 2002 drawing rights held amounted to €6,384 million (SDR 4,925 million) compared with €6,689 million (SDR 4,696 million) on 31 December 2001. They represent the difference between the unchanged German quota of SDR 13,008 million (€16,863 million) and the euro balances amounting to €10,478 million (SDR 8,083 million) at the disposal of the IMF at the end of the year. In 2002 there was a net increase of SDR 229 million in the holdings of drawing rights on the IMF, mainly as a result of the euro withdrawals and repayments of other member countries.

Special drawing rights, by means of which convertible currencies can be obtained at any time, were originally allocated free of charge to the extent of SDR 1,211 million. A corresponding counterpart is shown as liability item 8. The level of special drawing rights held at the end of 2002 amounted to €1,888 million (SDR 1,456 million) compared with €2,032 million (SDR 1,426 million) on 31 December 2001. Increases totalling SDR 104 million, mainly as a result of interest credited, were accompanied by decreases amounting to SDR 75 million arising from voluntary sales.

No loans were granted to the IMF as a result of special credit arrangements under both the General Arrangements to Borrow and the New Arrangements to Borrow in 2002.

SDR-denominated drawing rights in the reserve tranche, special drawing rights and the counterpart of special drawing rights allocated are shown in the balance sheet on the basis of the market rate calculated by the ECB at the end of the year for all central banks participating in the Eurosystem (SDR 1 = €1.2963).

Balances with banks, portfolio investment, external loans and other external assets

The balances with banks, portfolio investment, loans and other foreign currency claims amounted to €40,525 million at the end of 2002 compared with €49,598 million on 31 December 2001. These are almost exclusively in US dollars (US$41,810 million = €39,869 million), with some in yen (¥80,921 million = €651 million) and a very small amount in other currencies; the holdings are interest-bearing. If all US dollar items on the assets side and the liabilities side of the balance sheet are taken into account, the net US dollar item valued at market prices amounted to US$39,886 million. Last year the Bank reduced its net US dollar position by US$1,953 million. The US dollar items were valued at the end-of-year market rate of €1 = US$1.0487 compared with €1 = US$0.8813 on 31 December 2001.

Claims on non-euro-area residents ...

A long-term interest-free loan amounting to €300 million which the Bank made available to the IMF in agreement with the Federal Government in 2000 is shown in this item. The loan is in connection with the financing of debt relief

... denominated in euro

which the IMF grants to the heavily indebted poor developing countries (Heavily Indebted Poor Countries Initiative or HIPC initiative). The interest income from the investment of this money is at the disposal of a trust fund which is administered by the IMF and from which the debt relief granted by the IMF is financed. The loan has a maturity of ten years.

Lending to euro-area credit institutions related to monetary policy operations denominated in euro

This item reflects the volume and pattern of the Bank's refinancing of the credit institutions. By the end of the year under review the amount of funds loaned for refinancing purposes had increased by €2,430 and was therefore somewhat larger than on 31 December 2001.

The main refinancing operations undertaken as part of money market management account for the bulk of the monetary policy operations. These operations are regular weekly transactions with a normal two-week maturity, the purpose of which is to provide liquidity. In the year under review the main refinancing operations were conducted as interest rate tenders with a minimum bidding rate. At the end of the year the main refinancing operations amounted to €87,094 million, which was €6,592 million more than the level on 31 December 2001 (€80,502 million).

The longer-term, and in terms of value smaller, refinancing operations held at monthly intervals and with a maturity of three months are used to provide additional longer-term liquidity. In the year under review they were held as variable rate tenders. The volume of longer-term refinancing operations amounted to €36,144 million at the end of 2002 and was therefore €4,990 below that of the previous year.

The marginal lending facility (overnight liquidity) is permanently available at a predetermined interest rate (standing facility). The extent to which recourse to the marginal lending facility was being taken on 31 December 2002 had risen by €828 million since the previous year to €2,241 million.

Other claims on euro-area credit institutions denominated in euro

This item contains claims on credit institutions which have no connection with monetary policy operations. These claims are balances which are held at commercial banks in other euro-area countries and which are used for settling payments.

Claims on the Federal Government

This item shows the equalisation claims on the Federal Government and the non-interest-bearing debt register claims in respect of Berlin; both date back to the currency reform of 1948. They form the balance sheet counterpart of the amounts paid out at that time in cash per capita and per enterprise and of the initial provision of credit institutions and public corporations with central bank money. Equalisation claims yield interest at the rate of 1% per annum. In connection with Article 104 of the Maastricht Treaty it has been stipulated that equalisation claims and the debt register claims are to be redeemed in ten annual instalments, starting in the year 2024.

Intra-Eurosystem claims

The Bank's claims within the Eurosystem, both on the ECB and on the other central banks participating in the Eurosystem, are combined in this item.

Sub-item 9.1 "Participating interest in the ECB" is the Bank's participating interest in the ECB. Pursuant to Article 28 of the ESCB Statute, the national central banks are the sole subscribers to the capital of the ECB. Subscriptions depend on capital shares, which are fixed in accordance with Article 29 of the statute and revised, and if necessary adjusted, every five years. The Bundesbank currently has a 24.5% share (€1,225 million) of the ECB's capital of €5 billion. This is equivalent to a 30.2% share of the total capital paid in by the 12 national central banks in the Eurosystem.

Sub-item 9.2 "Claims arising from the transfer of foreign reserves to the ECB" contains the Bank's euro-denominated claims arising from the transfer of foreign reserves to the ECB. In accordance with Article 30 of the ESCB Statute, the central banks participating in the Eurosystem transferred foreign reserves (15% in gold and 85% in foreign exchange) to the ECB at the beginning of 1999. The Bundesbank's share of the foreign reserves transferred is unchanged at €12,247 million. As the transferred gold does not earn interest, the claim is remunerated at 85% of the present main refinancing operations rate.

The new sub-item 9.3 "Claims related to the allocation of euro banknotes within the Eurosystem (net)" shows the claims which arise from applying the banknote allocation key. At the end of the year the Bundesbank had no claims but, instead, liabilities, which are shown in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)".

A daily netting-by-novation procedure produces either a net assets balance or a net liabilities balance vis-à-vis the ECB from the TARGET settlement balances between the central banks of the ESCB. Sub-item 9.4 "Other claims within the Eurosystem (net)" contains a net assets balance together with the very small settlement balances arising from the traditional correspondent banking operations within the Eurosystem as at 31 December 2002. At the end of the year the Bank obtained from its assets and liabilities net claims amounting to €4,811 million. The TARGET settlement balances are remunerated at the current main refinancing operations rate. This sub-item also contains the claim arising from the redistribution of monetary income amounting to €41 million (see profit and loss item 5 "Net result arising from allocation of monetary income") and the claim on the ECB arising from the distribution of income from the ECB's share of euro banknotes in circulation amounting to €183 million (see profit and loss item 4 "Income from participating interests".

Items in course of settlement

This item contains the asset items arising from payments still being processed within the Bank (notably the float stemming from collections).

Other assets

The Bundesbank's holdings of euro coins are shown in sub-item 11.1 "Coins". New coins are received from the federal mints at their nominal value for the account of the Federal Government, which hold the coin prerogative. The holdings of Deutsche Mark coins were shown in this item at the end of 2001.

Sub-item 11.2 "Tangible and intangible fixed assets" amounted to €2,039 million compared with €2,149 million in 2001; it comprises the Bank's land and buildings, furniture and equipment and computer software. The balance sheet value of the land, offices and residential buildings showed a decline from 31 December 2001 of €83 million to €1,795 million. Net additions of €25 million were accompanied by depreciation amounting to €108 million. In the year under review the value of the Bank's furniture and equipment declined to €228 million after net additions of €51 million and depreciation totalling €72 million. In the case of computer software there was a balance sheet value at the end of 2002 of €15 million after taking account of depreciation amounting to €12 million and net additions of €6 million.

Sub-item 11.3 "Other financial assets" amounting to €2,454 million contains the Bank's participating interests (€51 million) and for the first time the Bank's fixed-interest euro assets as a counterpart to the provisions for pension commitments (€2,403 million). The participating interests are in the Liquiditäts-Konsortialbank GmbH, Frankfurt am Main, the Bank for International Settlements, Basle, and the cooperative society SWIFT, La Hulpe (Belgium). As before, the 30% interest in Liquiditäts-Konsortialbank entails for the Bank a maximum additional commitment of €300 million.

Sub-item 11.5 "Accruals and prepaid expenses" contains the accrued and prepaid expenditure identified at 31 December 2002. These chiefly consist of interest income which is due in the new financial year from securities denominated in US dollars, loans and other assets which were acquired or transacted in the financial year just ended.

2 Liabilities

Euro banknotes

In accordance with the banknote allocation key, the Bundesbank has a 27.8% share of the value of all euro banknotes in circulation on 31 December 2002; these amounted to €358,519 million. Accordingly, the Bundesbank shows holdings of euro banknotes worth €99,745 million at the end of the year. As the value of the euro banknotes actually issued by the Bundesbank amounted to €128,874 million and was therefore more than the allocated amount, the difference of €29,129 million is shown in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)".

Deutsche Mark banknotes

Deutsche Mark banknotes have not been legal tender since 1 January 2002. However, the Bundesbank has publicly undertaken to redeem Deutsche Mark banknotes that are still in circulation for an indefinite period. The Deutsche Mark banknotes still in circulation at the balance sheet date amounted to only €4,798 million (compared with €76,470 million at the end of 2001). From the financial year 2003 the value of Deutsche Mark banknotes still in circulation is being shown in liability item 11 "Other liabilities".

Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro

Sub-item 2.1 "Current accounts" contains the deposits of the credit institutions amounting to €44,791 million (31 December 2001: €57,399 million), which are used to meet the minimum reserve requirement and settle payments. The main criterion for including these deposits in this sub-item is that the respective business partners appear in the list of institutions which are subject to the minimum reserve regulations in the Eurosystem.

Sub-item 2.2 "Deposit facility" (€47million) contains overnight deposits at a predetermined interest rate (standing facility).

Liabilities to other euro-area residents ...

Sub-item 4.1 "General government deposits" encompasses the balances of the Federal Government, its special funds, the Land Governments and other public depositors. The deposits of other public depositors constitute balances held by social security funds and local authorities. At 31 December 2002 general government deposits amounted to €43 million in all (31 December 2001: €88 million).

... denominated in euro

The deposits of enterprises, individuals and other depositors are the main items shown in sub-item 4.2 "Other liabilities". At the end of 2002 these deposits amounted to €598 million compared with €949 million on 31 December 2001.

Liabilities to non-euro-area residents denominated in euro

This balance sheet item, amounting to €7,128 million (31 December 2001: €7,286 million) contains primarily the fixed-term deposits of central banks and the working balances held for settling the payments of monetary authorities, commercial banks and international organisations.

Liabilities to euro-area residents denominated in foreign currency

This item contains mostly the US dollar deposits of banks and of branches that are domiciled in the euro area and owned by banks domiciled outside the euro area.

Liabilities to non-euro-area residents denominated in foreign currency

The liabilities towards banks outside the euro area are recorded in this item. These are essentially liabilities in US dollars, amounting to US$1,932 million (€1,843 million), which have arisen from securities repurchase agreements (repos).

Counterpart of special drawing rights allocated by the IMF

The counterpart of the special drawing rights allocated by the IMF free of charge and shown as sub-item 2.1 "Receivables from the IMF" on the assets side of the balance sheet corresponds to the allocations of SDRs to the Federal Republic of Germany from 1970 to 1972 and from 1979 to 1981, which totalled SDR 1,211 million.

Intra-Eurosystem liabilities

The Bank's liabilities within the Eurosystem, both to the ECB and to the other central banks participating in the Eurosystem, are combined in this item.

The "Liabilities to the ECB arising from promissory notes" shown as sub-item 9.1 arise in connection with the issue of ECB debt certificates. There were no such issues during the year under review.

Sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)" contains the liabilities arising from the application of the banknotes allocation key. At the end of the year these liabilities amounted to €29,129 million (see liability item 1 "Banknotes in circulation").

A netting-by-novation procedure produces either a net assets balance or a net liabilities balance vis-à-vis the ECB from the TARGET settlement balances between the central banks of the ESCB. The net liabilities balance together with the very small settlement balances arising from the traditional correspondent banking operations within the Eurosystem would be shown in sub-item 9.3 "Other liabilities within the Eurosystem (net)". At the end of the year the Bank incurred a net claim arising from these assets and liabilities, and this is shown on the asset side under sub-item 9.4 "Other claims within the Eurosystem (net)".

Items in course of settlement

This item contains the liabilities items arising from the settlement transactions circulating within the Bank.

Other liabilities

Sub-item 11.2 "Accruals and income collected in advance" contains the accrued and deferred income identified at 31 December 2002. These consist almost exclusively of interest expenditure and payments which are due in the new financial year and which arose in the financial year just ended.

Sub-item-11.3 "Sundry items" contains various liabilities arising from banking and administrative operations.

Provisions

The Bank's provisions are as follows.

	31.12.2002 € million	31.12.2001 € million
Provision for		
– general risk	2,764	2,832
– pension commitments	2,524	2,394
– other	218	134
	5,506	5,360

The provisions for general risks, pursuant to the regulations governing the Bank's annual accounts contained in Section 26 (2) of the Bundesbank Act, are created in view of the unchanged foreign currency risks, especially in the case of the Bank's US dollar and SDR positions. The decline is due to the substantial disposals of US dollars during the year under review (see asset item 2.2 "Balances with banks, security investment, external loans and other external assets").

Following an increase of €41 million, the Bank's provisions for direct pensions amount to €2,168 million; they are based on an actuarial expert opinion. According to calculations by appropriately qualified experts, indirect pension liabilities arising from the Bank's obligation to act as guarantor for pension payments out of the supplementary pension funds for public sector employees amounted to €356 million at 31 December 2002.

The other provisions created primarily for age-induced part-time work, losses on disposals arising from the closure of branches and places of business, unrealised holidays and doubtful liabilities increased by €84 million net to €218 million at 31 December 2002.

Revaluation accounts

This item contains the disclosed hidden reserves from the initial valuation at the time of the changeover to market valuation on 1 January 1999 (revaluation items "old") and the resultant unrealised profits arising from market valuation on 31 December 2002 (revaluation items "new"). The "Revaluation accounts" item was made up as follows at the end of the year.

	Revaluation items "old" € million	Revaluation items "new" € million	Revaluation accounts, total € million
Gold	19,148	8,914	28,062
US dollars	2,190	2,205	4,396
Other foreign exchange	–	0	0
Securities	–	1,734	1,734
	21,339	12,853	34,191

Revaluation items "old"

Revaluation items were created, especially for gold, SDRs and US dollars, during the changeover to market-valuation on 1 January 1999. Although the valuation gains arising from the initial valuation are not eligible for distribution, they are available for offsetting valuation losses. The valuation at 31 December 2002 resulted in valuation losses of €174 million on the SDR item. These losses exceeded the initial revaluation item "old" amounting to €160 million. Consequently, there was a complete dissolution of this item through a write-down of €160 million at the end of the year (see profit and loss item 2/sub-item "Write-downs on financial assets and positions").

Besides a dissolution in the case of valuation losses, a dissolution takes place only in the case of reductions in the corresponding assets. In the course of an annual revision all disposals in the year under review are first offset against the acquisitions in that year. A proportionate dissolution of the revaluation items "old" concerned is undertaken only if the end-of-year holdings are below their lowest end-of-year level since the beginning of 1999. In the year under review there were reduced holdings of gold and US dollars on 31 December 2002, resulting in a dissolution of €60 million in the case of gold and €117 million in the case of US dollars. The dissolution amounts totalling €177 million are included in profit-and-loss item 2/sub-item "Realised gains/losses arising from financial operations" .

The revaluation items "old" were reduced by a total of €337 million to €21,339 million.

Revaluation items "new"

In the case of gold holdings, the net positions in each foreign currency and the securities portfolio, the positive difference between their market value and their value in terms of the average acquisition costs carried forward from 1 January 1999 is shown in the revaluation items "new" at the end of the year.

The market values of the gold and US dollar positions at the end of the year were above the respective acquisition values, with the result that revaluation items amounting to €11,119 million were created (2001: €18,181 million). There were only slight valuation gains in the case of the other foreign currencies. By contrast, the SDR and yen items did not result in revaluation items but, instead, in valuation losses (see profit and loss item 2/sub-item "Write-downs on financial assets and positions").

Valuation gains of €1,725 million arose from the valuation of securities, owing to the lower interest rate level in the United States; there were also valuation gains of €9 million arising from the valuation of the euro portfolio (see asset sub-item 11.3 "Other financial assets").

Capital and reserves

The Seventh Act amending the Bundesbank Act of 23 March 2002 slightly reduced the liable capital to a rounded €2.5 billion with effect from 31 December 2002 and laid down the rounded sum of €2.5 billion as the upper limit for the statutory reserves. The excess of €113 million was transferred to the net profit.

Profit for the year

The profit and loss account for the year 2002 closed with an annual surplus of €5,324 million. Pursuant to Section 27 of the Bundesbank Act, it will be transferred in full along with the dissolution amount of €113 million arising from the rounding of the liable capital to the Federal Government as the statutory reserves are at their amended maximum level of €2.5 billion.

VI Notes on the profit and loss account

Net interest income

This item shows interest income less interest expenditure. Net interest income was lower than in the previous year, falling by €2,442 million to €4,156 million. Of this total amount, €1,965 million was in foreign currency (primarily foreign reserves) while the euro holdings amounted to €2,191 million (primarily from bank refinancing less minimum reserves).

Interest income

Interest income declined by €2,755 million from the previous year to €6,038 million, with interest income in foreign currency falling from €3,080 million in 2001 to €2,001 million. This was due primarily to the reduced US dollar holdings and the lower rate of interest on US dollar assets compared with the previous year. Interest income in euro declined from €5,713 million in 2001 to €4,037 million. Income from the refinancing of credit institutions fell by €1,725 million to €3,460 million, mainly as a result of the year-on-year decreases in interest rates and the refinancing volume. Income from TARGET settlement balances rose by €67 million to €81 million. For the first time income (of €91 million) occurred from the remuneration of the intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem.

Interest expenses

Total interest expenditure declined only slightly (by €313 million to €1,882 million) compared with 2001. Interest expenditure in euro fell in the case of minimum reserve balances by €364 million and and by €63 million in the case of time deposits. Expenditure arising from TARGET settlement balances rose by €15 million to €292 million. For the first time expenditure (of €87 million) occurred from the remuneration of the intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem.

Net result of financial operations, write-downs and risk provisions

The sub-item "Realised gains/losses arising from financial operations" amounted to €2,058 million compared with €3,666 million in 2001. In the year under review there were realised gains arising from the disposal of gold (€91 million), US dollars (€889 million), SDRs (€76 million) and securities (€1,003 million) and a slight loss of €0.3 million in the yen item. The disposals of gold and US dollars resulted in a dissolution of part (€177 million) of the revaluation items "old" for gold and US dollars created on 1 January 1999 (see liability item 13 "Revaluation accounts"). These are included in the realised gains shown in the account for gold and US dollars.

Most of the valuation losses of €64 million recorded in the sub-item "Write-downs on financial assets and positions" occurred in the yen position (€51 million). Owing to the necessary write-down of €174 million in the SDR item, the existing revaluation item "old" amounting to €160 million for SDRs at the end of 2002 was completely cancelled, resulting in a net loss of €13 million in the SDR item (see liability item 13 "Revaluation accounts").

The sub-item "Transfers to/from provisions for general risks, foreign exchange risks and price risks" shows the partial liquidation of the provision for general risks (€68 million) resulting from the year-on-year reduction in the US dollar holdings (see liability item 12 "Provisions").

Net income from fees and commissions

Net income from fees and commissions rose by a total of €33 million to €42 million compared with the previous year. The change was due mainly to the ending of expenditure of €32 million on the advance distribution of euro banknotes and coins in 2001. Income from fees and commissions increased year on year by €4 million to €54 million. At a total of €44 million, net income arising from the handling of payments and from securities trading and safe custody account business rose slightly from the previous year (€41 million).

Income from participating interests

This item contains the Bank's profit from its participating interests in the Liquiditäts-Konsortialbank GmbH, the Bank for International Settlements and the European Central Bank. The rise of €114 million in income to €639 million is due almost exclusively to the distribution of profits by the ECB. The Bank's share of the profits distributed by the ECB for 2001 amounted to €441 million (2000: €494 million). A further €183 million is due to the ECB's advance distribution of profits for the financial year 2002. This advance payment arose from the allocation of 8% of the value of the euro banknotes in circulation to the ECB.

Net result arising from allocation of monetary income

The monetary income which the national central banks have to transfer to the common income pool of the Eurosystem was calculated for 2002 by paying interest on the liability base of each national central bank at the current main refinancing operations rate.[1] The liability base contains the following items: liability item 1 "Banknotes in circulation" (euro banknotes and national banknotes still in circulation); liability item 2 "Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro"; liability item 9.1

1 Decision of the European Central Bank of 6 December 2001 on the allocation of monetary income of the national central banks of participating member states from the financial year 2002 (ECB/2001/16).

"Liabilities to the ECB arising from promissory notes"; liability item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)"; and the net liabilities arising from TARGET accounts contained in liability item 9.3 "Other liabilities within the Eurosystem (net)". All interest expenditure which a national central bank has had to pay on the liability items mentioned is deducted from the amount calculated in this way. At the end of each financial year the total monetary income transferred by all national central banks is distributed among the national central banks in proportion to their respective paid-up shares in the capital of the ECB. In the year under review the allocation of monetary income resulted in a net claim of €41 million for the Bundesbank (2001: a net liability of €5 million). This claim was due to the difference between the monetary income, amounting to €2,870 million, paid into the pool by the Bundesbank and the sum, amounting to €2,911 million, reallocated to the Bundesbank.

Other income

The remaining income declined year on year by €65 million to €60 million. The decrease was mainly the result of smaller gains from the sales of land and buildings.

Staff costs

Expenditure on staff, which includes the changes in the provisions relating to this item, increased by a total of €5 million (0.5%) to €1,021 million in 2002. If the additions to and deductions from the provisions are excluded, overall expenditure increased year on year by €30 million (3.7%). This increase was due mainly to rises in the pay of civil servants and of wage and salaried staff and to changes in social legislation.

Retirement pensions accounted for €257 million of aggregated expenditure on staff (2001: €313 million). This sum includes the transfers to provisions for pensions and to the reserve for pension commitments vis-à-vis the Versorgungsanstalt des Bundes und der Länder (see liability item 12 "Provisions") as well as payments made to staff of the former Deutsche Reichsbank to whom Article 131 of the Basic Law applies and to other persons for whom the Bank is required to provide, in accordance with section 41 of the Bundesbank Act.

Payments to serving members of the Executive Board, former members of the Bank's Directorate, of the Central Bank Council, of the Board of Managers of the Bank deutscher Länder and of the Executive Boards of Land Central Banks, including their surviving dependants, amounted to €12,582,888.90 in the year under review.

Other administrative expenses

The other (non-staff) operating expenditure fell by €30 million (9%) compared with 2001 to €316 million. This item shows not only operating expenditure but also expenditure on buildings and computer hardware and software. Most of the reduction in other administrative expenses was due to the reduced expenditure for work relating to the introduction of euro banknotes and coins.

Depreciation on tangible and intangible fixed assets

The depreciation of land and buildings, of furniture and equipment and of computer software is shown in the notes to the balance sheet under asset sub-item 11.2 "Tangible and intangible fixed assets".

Banknote printing

Expenditure on banknote printing declined by €160 million (70%) from the previous year because, following the initial issue of euro banknotes and coins, the need for new banknotes decreased significantly.

Other expenses

The reduction of €60 million in other expenses was due mainly to the fact that in the previous year there had been a one-off expenditure of €94 million as a result of the issue of the DM1 gold coin. The remainder of the other expenses is principally expenditure on residential buildings.

Branches and operating units of the Deutsche Bundesbank

on 1 April 2003

Locality number	Bank location	Regional Office[1]
390	Aachen	D
720	Augsburg	M
	Kempten[2]	
	Memmingen[2]	
773	Bayreuth	M
100	Berlin	B
480	Bielefeld	D
430	Bochum	D
	Gelsenkirchen[2]	
380	Bonn	D
290	Bremen	H
270	Brunswick	H
870	Chemnitz	L
570	Coblenz	MZ
370	Cologne	D
180	Cottbus	B
508	Darmstadt	F
440	Dortmund	D
850	Dresden	L
300	Düsseldorf	D
	Neuss[2]	
350	Duisburg	D
	Wesel[2]	
820	Erfurt	L
360	Essen	D
215	Flensburg	HH
	Husum[2]	
500	Frankfurt/M	F
	Hanau[2]	
170	Frankfurt/O	B
680	Freiburg	S
	Lörrach[2]	
830	Gera	L
513	Giessen	F
260	Göttingen	H
450	Hagen	D
	Siegen[2]	
800	Halle	H
200	Hamburg	HH
410	Hamm	D
	Arnsberg[2]	
250	Hanover	H
	Celle[2]	
	Hamelin[2]	
620	Heilbronn	S
540	Kaiserslautern	MZ
660	Karlsruhe	S
520	Kassel	F
	Bad Hersfeld[2]	
210	Kiel	HH
	Itzehoe[2]	
	Neumünster[2]	
860	Leipzig	L
545	Ludwigshafen	MZ
230	Lübeck	HH
240	Lüneburg	H
810	Magdeburg	H
	Halberstadt[2]	
550	Mainz	MZ

Locality number	Bank location	Regional Office[1]
670	Mannheim	S
840	Meiningen	L
490	Minden	D
310	Mönchengladbach	D
	Krefeld[2]	
700	Munich	M
	Ingolstadt[2]	
	Rosenheim[2]	
400	Münster	D
150	Neubrandenburg	HH
760	Nuremberg	M
	Bamberg[2]	
280	Oldenburg	H
	Leer[2]	
	Wilhelmshaven[2]	
265	Osnabrück	H
	Lingen[2]	
160	Potsdam	B
750	Regensburg	M
	Landshut[2]	
	Passau[2]	
640	Reutlingen	S
	Albstadt[2]	
130	Rostock	HH
590	Saarbrücken	MZ
	Saarlouis[2]	
140	Schwerin	HH
600	Stuttgart	S
	Esslingen[2]	
	Ludwigsburg[2]	
	Sindelfingen[2]	
585	Trier	MZ
630	Ulm	S
	Aalen[2]	
	Ravensburg[2]	
694	Villingen-Schwenningen	S
510	Wiesbaden	F
790	Würzburg	M
	Aschaffenburg[2]	
	Schweinfurt[2]	
330	Wuppertal	D

1 Abbreviations
B = Berlin
D = Düsseldorf
F = Frankfurt am Main
H = Hanover
HH = Hamburg
L = Leipzig
M = Munich
MZ = Mainz
S = Stuttgart
2 Operating units