Deutsche
Bundesbank
Annual Report
2000

We mourn the death in the year 2000

of the following members of our staff

Sigrid Schulze	1. 1. 2000
Ralf-Jürgen Schrade	28. 1. 2000
Helmut Mielke	25. 2. 2000
Dieter Breuer	9. 3. 2000
Gert Stasinski	15. 3. 2000
Reiner Haußmann	1. 5. 2000
Rudi Wienke	8. 5. 2000
Karl-Heinz Barton	30. 5. 2000
Heinz-Udo Neebuhr	23. 6. 2000
Marika Schulze	5. 8. 2000
Reinhard Scharnbeck	13. 8. 2000
Winfried Schmidt	14. 9. 2000
Gabriele Prüfer	18. 9. 2000
Dieter Kermer	24. 9. 2000
Rudolf Cuno	26. 9. 2000
Jutta Weiß	17. 10. 2000
Hans Dieter Theis	24. 10. 2000
Werner Reichenthal	11. 11. 2000
Thomas Wolfschlag	13. 11. 2000
Hubert Seitz	14. 11. 2000
Werner Ost	27. 11. 2000
Hans-Hermann Türk	26. 12. 2000

We also keep in remembrance the retired staff members of the Bank and of the former Deutsche Reichsbank who died in 2000.

We will honour their memory.

DEUTSCHE BUNDESBANK

Members of the Central Bank Council of the Deutsche Bundesbank

on April 4, 2001

Ernst Welteke
Chairman of the Central Bank Council

Dr Jürgen Stark
Deputy Chairman of the Central Bank Council

Dr Hans Georg Fabritius

Dieter Haferkamp

Eberhard Heinke

Hans-Jürgen Koebnick

Hans-Helmut Kotz

Prof. Dr Hans-Jürgen Krupp

Klaus-Dieter Kühbacher

Edgar Meister

Dr Christian Milow

Dr Hans Reckers

Prof. Dr Hermann Remsperger

Helmut Schieber

Prof. Dr Franz-Christoph Zeitler

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from April 6, 2000
to April 4, 2001

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of the Deutsche Bundesbank

Dr Jürgen Stark
Vice-President
of the Deutsche Bundesbank

Dr Hans Georg Fabritius
(from June 15, 2000)

Dieter Haferkamp

Wendelin Hartmann
(until June 14, 2000)

Edgar Meister

Prof. Dr Hermann Remsperger

Helmut Schieber
(until June 14, 2000)

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from April 6, 2000
to April 4, 2001

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(until April 23, 2000)

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(from June 15, 2000)

Dr Günter Schmid
Vice-President
(until August 31, 2000)

Wilhelm Ergenzinger
Vice-President
(from September 1, 2000)

Wilhelm Ergenzinger
(until August 31, 2000)

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President

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Berlin and Brandenburg

Klaus-Dieter Kühbacher
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Ulrich Preuß
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Free Hanseatic City of Bremen, Lower Saxony and Saxony-Anhalt

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Prof. Dr Hans-Jürgen Krupp
President

Hans-Jürgen Siegmund
Vice-President
(until October 31, 2000)

Georg Kutter
Vice-President
(from November 1, 2000)

Hans-Georg Herrmann
(until October 31, 2000)

Hesse

Dr Hans Reckers
President

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Vice-President
(until June 14, 2000)

Jürgen Hettinger
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(from September 1, 2000)

Jürgen Hettinger
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ISSN 0418 - 9292
The German original of this Report
went to press on April 4, 2001

Telex 41 227 within Germany
4 14 431 from abroad

Fax (0 69) 5 60 10 71

Internet http://www.bundesbank.de

The Annual Report is published autonomously by the Deutsche Bundesbank, Frankfurt am Main, by virtue of section 18 of the Bundesbank Act of July 26, 1957. It is available to interested parties free of charge.

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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

Economically speaking, we can look back on a rather good year 2000. The growth rate of the world economy was higher than for many years past, and world trade also increased rapidly. In the euro area, which for a long time had lagged behind other regions in terms of business activity, the expansionary forces likewise accelerated. Employment rose distinctly in the euro area. Unemployment declined perceptibly.

In a difficult environment, the Eurosystem succeeded in keeping inflation expectations within bounds that were consistent with price stability. The inflation rate last year, at 2.3 %, was admittedly above the medium-term stability standard of the ECB Governing Council, but it was primarily exogenous determinants – the dramatic rise in oil prices and the weakness of the euro – that engendered that deviation. The higher inflation rates did not become a key element in market players' expectations; it is generally assumed that the rate of price increase in the euro area will slacken again in the course of this year. The conduct of monetary policy in the euro area once again functioned smoothly last year, not least on account of fruitful cooperation with the credit institutions. Finally, the accession of Greece to the euro area presented no problems.

In retrospect, auspicious developments predominated for Germany, too. The strongest rate of economic growth since German reunification was reached in the year 2000. Conditions in the German labour market likewise improved distinctly – not least because wage policy was consistent with price stability and conducive to full employment. In the shape of the tax reform and the pension reform (which has not yet been finally approved), some major decisions were taken that are designed to enhance the underlying economic conditions and to address the outstanding demographic problems. Further – albeit only slight – progress was made in consolidating public finances.

In the meantime, however, the business environment has clouded over. Viewed as a whole, a more sluggish pace of economic activity is to be expected this year, particularly outside the euro area. Some of the euphoria associated with the "new economy" has apparently evaporated for the time being. That has also had serious implications for the international equity markets, in which especially high-tech equities had to cope with heavy price losses last year. Although those losses partly constituted a correction of preceding exaggerations, there is no mistaking the sense of insecurity felt by market players, which, in turn, might adversely affect further business trends. Currently, at all events, a lasting and marked cyclical slowdown is not to be anticipated in the euro area.

In 2001, the Eurosystem will be faced with a number of difficult tasks. In the field of monetary policy, it will primarily be necessary to keep inflation risks low and to curb potential second-round effects of the oil-price rises. A calculable "steady-as-she-goes" monetary policy may make a crucial contribution to stabilising expectations in the financial markets.

With the forthcoming introduction of euro banknotes and coins, a further major challenge to the completion of monetary union is to be addressed. Euro banknotes and coins will be put into circulation at the beginning of next year, and will supersede national currencies, such as the Deutsche Mark. Even ahead of that operation, greater efforts will be required of all the agencies concerned. Great commitment will likewise be demanded of the Bundesbank, and particularly of the many staff members of the Bank who are directly or indirectly involved, in order to ensure that the exchange proceeds smoothly.

Against this background, the employees of the Bank have a legitimate interest in obtaining a clearer picture of the future duties assigned to the Bundesbank, and of their associated occupational prospects. In principle, the Central Bank Council endorses the proposals of the Federal Finance Minister on the reform of the Bundesbank structure, which envisage, inter alia, a new Bundesbank Executive Board, as the central governing and decision-making body, and the retention of the Land Central Banks – although some of their areas of responsibility are to be abolished. There is, however, still a need for further clarification of specific issues of the planned structural reform.

As regards the restructuring of financial supervision, in the eyes of the Central Bank Council there are cogent reasons for the integration of banking supervision into the Bundesbank – especially its proximity to the market, the specialised knowledge of its staff and its personnel resources, as well as the decentralised structure of the German banking system. If, however, Parliament opts for one-stop financial supervision, then the Bundesbank will have to remain intimately involved in ongoing banking supervision and in the formulation of the supervisory rules (at the national and international levels alike). Only in that way can it do justice to its responsibility for the stability and functionality of the financial system, and thus make its indispensable contribution to successful monetary policy in the monetary union.

The present Annual Report elucidates the monetary policy of the Eurosystem last year. It is based on an analysis of the international and European setting, and also addresses economic developments in Germany and the changes in the underlying international monetary conditions. At the same time, the Bundesbank presents in this Report its annual accounts for the year 2000, which have been audited (and certified) by two firms of auditors, and which were approved by the Central Bank Council on April 4, 2001.

Acting on behalf of the Central Bank Council, as well as speaking for myself, I should like to take this opportunity of expressing my gratitude to all members of the Bank's staff for the great commitment with which they executed their duties in the year 2000. My thanks are coupled with a request for support in the upcoming introduction of euro banknotes and coins. I am likewise deeply grateful to the staff representative bodies for their cooperation, always in a spirit of mutual trust.

Frankfurt am Main, April 2001

Ernst Welteke
President, Deutsche Bundesbank

The currency
and the economy

I. The international and European setting

1. The global economic background

After growing risks of overheating ...

Taking the average of the year 2000, the growth rate of the world economy was little short of 5 %. After an unexpectedly sharp initial expansion, which was accompanied by mounting risks of overheating in a number of major industrialised countries, economic activity slowed down perceptibly in the second half of the year. In the spring, the financial markets had responded to earlier exaggerations by some abrupt changes of stance. In the further course of the year, share prices embarked on a prolonged period of consolidation, and a more realistic assessment of future earnings prospects took shape, especially in the new growth industries.

... more favourable conditions for anti-inflation policy again

Towards the end of the year, the distortions in monetary relationships that have occurred in the past two years between the euro and other major international currencies no longer increased, but rather diminished markedly at times. At the same time, conditions in the oil markets started to ease slightly, after oil prices had risen unexpectedly steeply until well into the autumn. Even so, shifts in the terms of trade in favour of the oil-producing countries led to a severe deterioration in the current-account balances of most industrialised countries. But, unlike the situation in earlier periods of sharply rising oil prices, the "second-round effects" on general price movements, which merit particular consideration on monetary policy grounds, largely failed to materialise, with the result that the favourable conditions for anti-inflation policy, which had obtained ever since the consequences of the Asian crisis were overcome, persisted, even in those difficult circumstances. Taking the average of last year, the pace of consumer-price rises in the major industrialised countries ran at about 2 ½ %. In the capital markets, the containment of the latent inflation risks associated with the initially high level of global business activity and the substantial upturn in energy prices has been rewarded in recent months by declining bond rates.

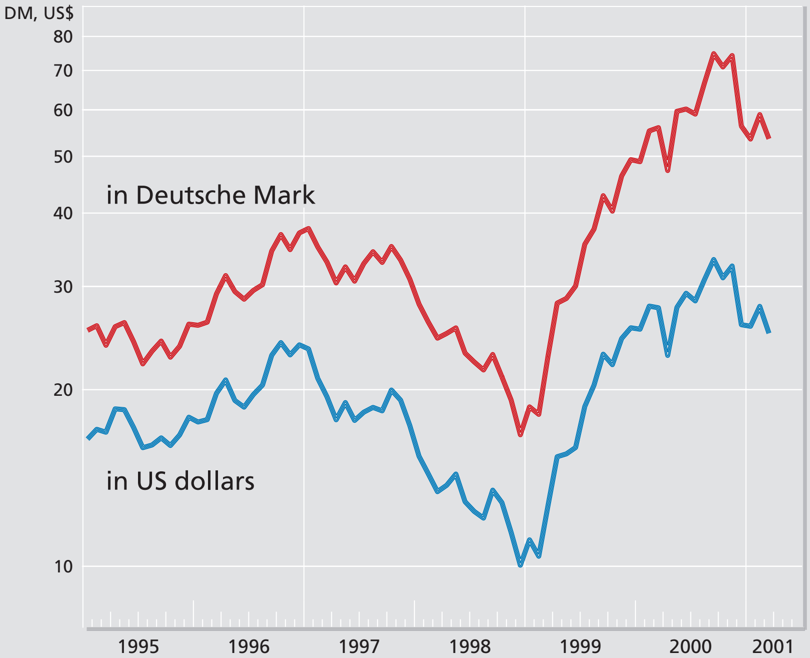
Strong growth of the US economy

A key role in the world economy was played last year – as in previous years – by real and financial developments in the United States. Until well into the summer, the US economy, which was then in its tenth year of economic upswing, continued to impart unexpectedly strong growth stimuli. Altogether, US GDP rose on the year by 5.0 % in 2000; that was the highest year-on-year rate of growth that has been recorded during this cycle. The mainspring of this expansion, since

World-market prices of crude oil

Chart 1

Price per barrel (Brent), monthly, log. scale



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about the mid-nineties, has been the rapid structural change in favour of the new information technologies, which, against the background of flexible product and labour markets, has opened up new earnings prospects for enterprises and new employment options for individuals. Not only was the propensity of business to invest fostered, but consumer confidence was strengthened, by the reduction of unemployment and the increasing affluence of households. Heavy capital inflows from abroad and a strong currency buttressed the dynamic expansion process, which proceeded for a long while without any tensions, on the external flank. It was only in the course of 1999, when sharply rising oil prices supervened, as a disruptive external factor, and market players' profit expectations ratcheted up (ultimately losing touch with reality), that the inflationary risks likewise grew. All told, US consumer prices went up by 3.4 % in 2000, and thus distinctly faster than in the previous year (2.2 %). The US central bank responded to these dangers to price stability by tightening the monetary policy reins appreciably, and had raised its target interest rate in the money market, in several steps, by one percentage point altogether by the middle of 2000.

After a number of years of almost unabated dynamism and increasing exaggerations in the equity markets, in the spring there were some dramatic price ad-

Price adjustments in the equity markets

justments affecting the high-tech equities traded in the NASDAQ system and a much more cautious appraisal of the "new economy". Between mid-March – the peak of the latest surge in equities – and the end of December the NASDAQ index fell by more than 50 %, whereas the S&P 500 index, which includes the standard equities of the US economy, remained virtually static during that period.

Slackening pace of domestic demand

Besides the adjustment of earnings expectations in the IT sector, the concomitant restraint in investment, the heavy price losses of investors in the equity markets and the ever-more-difficult financing conditions besetting US corporations, the persistent drain on purchasing power owing to further rises in oil prices sapped economic growth in the United States. On balance, US economic performance improved but little in the final quarter of 2000.

Cuts in US interest rates early in 2001

Against the background of these developments, which gave rise to a radical reappraisal in the financial markets of the further prospects for the US economy, anxiety about a "hard landing" of the US economy increased. The external economic difficulties, such as, in particular, the current account deficit, which had grown to US$ 435 billion, or 4.4 % of GDP, within one year, became a greater focus of market attention. The US central bank responded to the looming downturn in growth at the beginning of the new year by lowering interest rates on three occasions, by 50 basis points each time, after interest rates in the US capital market had likewise decreased distinctly and conditions on the oil markets had eased somewhat. Up to the turn of 2000-01, moreover, the US dollar relinquished some of the price gains it had made against the euro, whereas it appreciated against the Japanese yen until very recently. However, the US currency also strengthened against the euro in the early months of the new year.

Japan an element of uncertainty

Right up to the end of the period under review, Japan remained one of the principal elements of uncertainty in the world economy. After the recession of 1998 and the stagnation of 1999, the Japanese economy seemed at first to get back in step again last year, so that the Bank of Japan decided in the summer to abandon the zero-interest-rate policy it had introduced eighteen months before, and to raise its overnight rate to 0.25 % in the light of the improved underlying economic conditions. But, in much the same way as on earlier occasions, the growth of domestic demand fuelled primarily by public expenditure programmes soon turned out to be a "flash in the pan". The sharp nosedives in some equity-market prices, along with the problems besetting individual enterprises, have since focused market players' attention more closely on the unre-

Macroeconomic benchmark figures of selected industrialised countries

Table 1

Country	Real GDP		Consumer prices 1		Current account balance		Unemployment rate 2	
	1999	2000 p	1999	2000 p	1999	2000 p	1999	2000 p
	Changes from previous year in %				as % of GDP		in %	
OECD of which	3.2	4.2	3.4	4.0	–	–	6.8	6.5
EMU	2.5	3.4	1.1	2.3	– 0.1	– 0.4	10.0	9.0
United Kingdom	2.3	3.0	1.5	3.0	– 1.1	– 1.5	6.1	5.5
United States	4.2	5.0	2.2	3.4	– 3.6	– 4.4	4.2	4.0
Japan	0.8	1.7	– 0.3	– 0.7	2.5	2.5	4.7	4.7
Canada	4.5	4.7	1.7	2.7	– 0.4	1.8	7.6	6.8

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

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solved structural problems facing the Japanese economy in general, and the financial and banking sector in particular. Moreover, the high level of unemployment (by Japanese standards), averaging almost 5 % last year, gives cause for concern; it is not least a reflection of the structural shortcomings of the economy, and adversely affects private consumer demand. Without a radical revitalisation of private consumption, the expansionary forces lack an essential internal buttress, especially since the Government's freedom of action is limited by its tight financial situation. In view of the strong export bias of the growth of the Japanese economy, prospects deteriorated again in the second half of 2000 because of the distinct slackening of US business activity, so that the Japanese central bank saw fit to relax its monetary policy stance in March 2001.

Emerging economies recover

Much the same is true of the other east Asian countries. Despite their rapid recovery from the after-effects of the financial crises in the region in 1997 and 1998, the structural shortcomings in the financial and corporate sectors of a number of east Asian countries were often only masked by the pace of global economic growth last year, but have not yet actually been put right. With the slowdown in, above all, the US economy towards the end of last year, such omissions have again become more manifest. Most countries in Latin America, and particularly Brazil, Mexico and Chile, recorded a steep increase in their economic performance after the sluggish growth of the preceding year.

Crises in Argentina and Turkey

Argentina, by contrast, is undergoing a sustained and severe economic and financial crisis. The main reasons are the persistent overvaluation of the peso, resulting from rigid pegging to the dollar, and serious budget problems. Under these aggravating conditions, Argentina suffered further economic setbacks in 2000, after the profound recession of 1999. Turkey has been facing equally grave difficulties since the autumn of 2000. Sparked off by a political dispute, foreign capital donors' confidence in Turkey's ability to resolve its domestic and external economic problems evaporated overnight. At the same time, the Turkish banking system, which is massively in debt to non-residents, found itself saddled with payment problems. Both these crisis cases posed new challenges to international monetary cooperation.

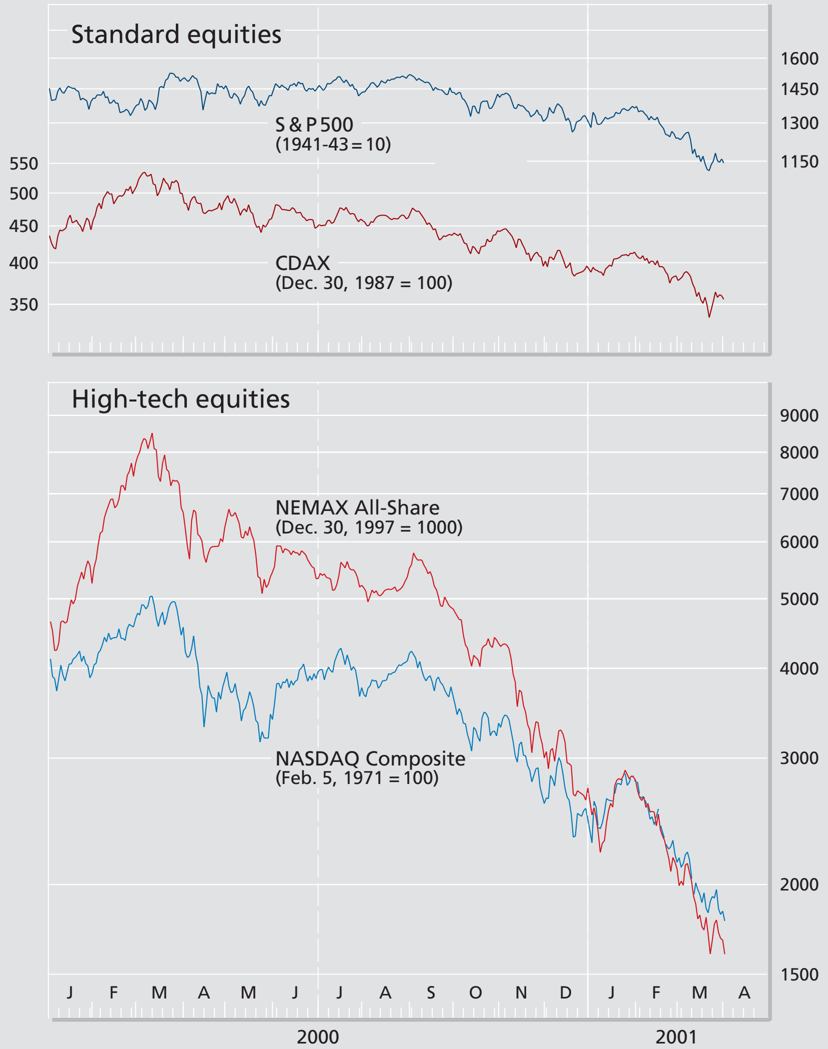
Headway in central and eastern Europe

In central and eastern Europe, the repercussions of the 1998 financial crisis seem to have been overcome. For the first time since the inception of the transition process, economic activity expanded in almost all the countries of that region. Moreover, exports gathered pace again – partly on account of the revival of business activity in the European Union. At the same time, inflation rates accelerated in most countries, although they generally remained in the single-digit range. In part, this upturn in prices was due to a relaxation of monetary policy in earlier years, but it also owed something to greater reform endeavours in the liberalisation of administered prices and hence, to a certain extent, it was an inevitable concomitant of the transition and catching-up process. An essential factor is, however, that the underlying adjustments in the pattern of prices do not trigger any inflation spirals or cost spirals, and do not elude monetary policy control. Especially for the countries applying for admission to European Union, it is most important to counteract such risks to anti-inflation policy in a resolute manner, thereby safeguarding the competitiveness of their economies. Those countries, despite their continued need for reforms, can point to notable successes in the restructuring of their banking systems and in the privatisation of state-owned firms. Some of them certainly seem to be in a position to meet the conditions for full membership of the European Union within a few years, but at the same time a warning must be issued against undue ambition with respect to the early introduction of the euro in those states. In view of the lasting need for the adjustment of relative prices in the course of real convergence, it is likely to be difficult for a single monetary policy to do justice both to the interests of the more mature economies and to those of the transition economies.

German and US equity-price indices

Chart 2

Daily values, log. scale



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Russia benefits from improved terms of trade, which mask deficits in the corporate and financial sectors

Russia appears to have overcome the recession it experienced in 1998. In the year 2000, economic growth more than doubled, to 7 ½ % against the previous year. The other member countries of the Commonwealth of Independent States (CIS) benefited from that as well. However, this development must not obscure the deficits that continue to exist in the corporate and financial sectors, especially since they owe something to a presumably only temporary improvement in the Russian terms of trade in connection with the rise in oil prices. However, Russia's budget situation and external solvency have improved so much that the Russian government undertook, after some hesitation, definitely to meet its obligations to service old Soviet debt in full. In this connection, the Russian government took due account of the fact that any infringement of such payment obligations would be bound to have serious implications for international cooperation.

The global financial system under test

The slackening of global business activity has subjected the financial markets of the industrialised countries to an acid test. In the light of that, and in view of the persistent weaknesses in some of the emerging economies, the global financial system showed itself to be in good shape in the year 2000. After the speculative exaggerations in the growth stock markets of the industrialised countries that had taken place in the euphoria about the advances and the opportunities presented by the "new economy", there were bound to be some dramatic price adjustments. But a stock-market crash, like that of autumn 1987, did not occur. In particular, the dreaded, self-reinforcing "panic reactions" of investors, with adverse repercussions on real economic growth, have so far failed to materialise.

2. The economic performance of the European monetary union

(a) Macroeconomic trends

On an annual average, strong economic growth

Aggregate output in the euro area expanded strongly in 2000. At almost 3 ½ %, growth was noticeably higher than a year before (+ 2 ½ %); moreover, it was nearly twice as fast as the average of the period from 1992 to 1999, and represented the highest level since the beginning of the nineties. The growth rate of production potential was also substantially exceeded, with the result that capacity utilisation continued to rise significantly. In the current year, notwithstanding the enhanced risks and the slower growth of world trade, the output gap might well close again, for the first time since the early nineties.

Broadly-based upswing ...

Domestic demand, which rose by 2 ¾ %, and thus not quite as fast as in 1999, once again constituted a mainstay of business activity. Its growth was once more fuelled by private consumption and fixed capital formation, which surpassed their respective levels of the previous year by 2 ½ % and a good 4 ½ %. Real exports by EMU countries were fostered in 2000 both by the very buoyant pace of global business activity and by the depreciation of the euro against the currencies of major partner countries. At an average growth rate of over 11½ % during the year, which greatly exceeded the 1999 figure (just over 4 ½ %), they contributed very materially to the enhancement of economic growth. Although

Economic performance in the euro area Table 2

Country	Real gross domestic product		Consumer prices 1		Unemployment rate 2		Public sector financial balance 3	
	1999	2000 p	1999	2000 p	1999	2000 p	1999	2000 p
	Changes from previous year in %				in %		as % of GDP	
Euro area	+ 2.5	+ 3.4	+ 1.1	+ 2.3	10.0	9.0	– 1.3	+ 0.3
Germany	+ 1.6	+ 3.0	+ 0.6	+ 2.1	8.6	8.1	– 1.4	+ 1.5
France	+ 2.9	+ 3.0	+ 0.6	+ 1.8	11.2	9.5	– 1.6	– 1.3
Italy	+ 1.6	+ 2.9	+ 1.7	+ 2.6	11.3	10.5	– 1.8	– 0.3
Spain	+ 4.0	+ 4.1	+ 2.2	+ 3.5	15.9	14.1	– 1.2	– 0.3
Netherlands	+ 3.9	+ 3.9	+ 2.0	+ 2.3	3.3	2.8	+ 1.0	+ 2.0
Belgium	+ 2.7	...	+ 1.1	+ 2.7	8.8	7.0	– 0.7	0.0
Austria	+ 2.8	...	+ 0.5	+ 2.0	4.0	3.7	– 2.1	– 1.1
Finland	+ 4.2	+ 5.7	+ 1.3	+ 3.0	10.2	9.8	+ 1.8	+ 6.7
Portugal	+ 3.0	...	+ 2.2	+ 2.8	4.5	4.2	– 2.0	– 1.4
Ireland	+ 9.8	...	+ 2.5	+ 5.3	5.6	4.2	+ 2.1	+ 4.5
Luxembourg	+ 7.5	...	+ 1.0	+ 3.8	2.3	2.2	+ 4.7	+ 5.3

1 Harmonised consumer price index (HCPI). — **2** Standardised unemployment rate according to calculations by Eurostat (ILO definition). — **3** As defined in the Maastricht Treaty, and in 2000 including the special revenue from the auction of UMTS licences.

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imports likewise rose strongly at the same time, net exports of goods and services went up perceptibly in real terms.

... but the pace slackens in the second half of the year

The strong average growth rate during 2000 masks a distinct slackening of the pace of expansion in the course of the year. In the second half, seasonally adjusted real GDP, expressed as an annual rate, expanded by "only" 2 ½ %, compared with 3 ½ % in the first half of the year. That was mainly due to the diminishing pace of private consumption owing to the drain on purchasing power caused by the oil-price rises. According to estimates by the German economic research institutes, this effect – measured in terms of nominal GDP – exerted roughly twice as much impact in the euro area (at two-thirds of a percentage point) as in the United States and Japan, with the brunt being borne in the second half of the year. That was chiefly because the import prices of crude oil had risen particularly steeply in the euro-area countries owing to the depreciation of the euro.

Outlook for 2001

However, from the present perspective, the slower pace of expansion of the euro-area economy since mid-2000 is not to be regarded as a harbinger of a lasting and pronounced cyclical downturn. Instead, there is a good deal of evidence that economic activity in the euro area will continue to grow distinctly in 2001. In particular, the tax-relief measures that came into effect in a number of member states at the beginning of the year will probably help materially to buttress domestic demand. Financing conditions remain good. Moreover, households' and enterprises' scope for spending will increase again on account of the downturn in oil prices. In addition, the favourable employment trends, which have persisted at a moderate pace right up to the present, will probably continue to boost private consumption. However, the cyclical risks have increased in Europe as well. In particular, any "hard landing" by the US economy might well seriously affect the economies of the euro area.

Smaller cyclical discrepancies

The differences in growth rates between the individual EMU member states lessened further, viewed as a whole, in 2000. The main reason for this was that Germany and Italy – member states which had not been able to keep pace with the other EMU countries in preceding years – benefited particularly strongly from the revival of foreign demand. Even so, real GDP in those two countries grew not quite as fast as the aggregate output of the euro area in 2000. In addition, some of the strongly growing smaller economies were able to speed up their expansion only a little, or not at all, last year because they increasingly came up against capacity limits. This fact was also reflected in part in stronger signs of cyclical overheating. The range of GDP growth in 2000, which extended from barely 3 % in Italy at the bottom end of the scale to an estimated 10½ % in Ireland, was nevertheless considerable. Not counting Ireland, Luxembourg and Finland, which occupy exceptional positions within EMU with respect to their current pace of growth, the difference amounted to just over one percentage point, compared with two-and-a-half percentage points a year before. The discrepancies that still exist in growth rates partly reflect the catching-up process of those economies in EMU which generate below-average per capita incomes. That process made good headway during the nineties, inasmuch as the prosperity differentials within the euro area have decreased distinctly.

Further decline in unemployment

The decline in unemployment persisted in the year 2000, although it gradually tailed off. Whereas the seasonally adjusted unemployment rate fell by one-half of a percentage point in the first half of the year, the decrease in the second half of 2000 was only one-half as large. At the end of the year, 8.7 % of the labour force in the euro area were out of work; taking the annual average, the unemployment rate was 9.0 %, compared with 10.0 % in 1999. The slowdown in the reduction of unemployment in the course of the year owed something not only to the more sluggish growth but also to the fact that some smaller countries have meanwhile reached virtually full employment. Those nations include Ireland, Luxembourg, the Netherlands and Austria. Major declines in unemployment were recorded primarily in France and Spain. Among the contributory factors in France were measures to foster employment in the public service and the shortening of weekly working hours in the private sector, which came into force at the beginning of 2000. Although the latter step was accompanied by an increase in the flexibility of the working-hours regulations, judging by experience in Germany, it is doubtful whether employment gains deriving from general cuts in working hours are substantial and durable.

Acceleration of inflation

Under the impact of the high oil prices and the weakness of the euro, consumer-price rises in the euro area accelerated distinctly in the year 2000. Taking the annual average, goods and services (measured in terms of the Harmonised Consumer Price Index – HCPI) became 2.3 % dearer for consumers. In the two preceding years, the annual rate had been only 1.1%. Not counting energy, prices went up by an average of 1.3 %. In addition, the prices of seasonal foodstuffs rose perceptibly in the course of the year. The prices of industrial goods and of services increased only a little faster than before, despite the higher cost of energy. After the pace of inflation in the euro area had slackened markedly in December 2000 on account of the sharp drop in oil prices, the inflation rate did not decrease any further at the beginning of 2001. This was, firstly, because prices in the markets for crude oil were tending to go up again at times. Secondly, indirect taxes and administered prices were raised in a number of countries. The higher consumer prices have so far exerted little impact on wages, so that the risk of second-round effects at present appears to be limited (except in particular countries).

Dispersion of inflation rates in the euro area ...

As in the past few years, the dispersion of inflation rates in the euro area was substantial. Taking the average of 2000, there was a range of 3.5 percentage points between the highest figure (5.3 %) in Ireland and the lowest rate (1.8 %) in France, which was the only country to remain just within the corridor of price stability defined by the Eurosystem. Measured in terms of the (weighted) standard deviation, the divergence has hardly changed at all in the past three years, after it had previously diminished significantly. The differences in inflation rates still existing in the monetary union are probably partly cyclical in origin, and partly due to differences in growth rates deriving from the convergence process between poorer and more prosperous states. As a rule, consumer prices tend to rise faster in catching-up countries. But as the euro area is a largely homogeneous group of countries, the differences in inflation rates due to catching up are likely to be small on the whole.

... and the implications for monetary policy

Against the background of the differences in inflation rates, there have been calls for a more lenient interpretation of the price-stability standard than is at present the case for the purposes of monetary policy in the euro area. The differences in inflation rates are indeed not inconsiderable. A redefinition of the stability standard should not be contemplated, however, primarily because that might lastingly impair the credibility of monetary policy in the euro area. For the rest, such divergences are likely to diminish as business cycles converge and as prosperity differentials are progressively evened out.

(b) External economic trends in the euro area

Strong export growth...

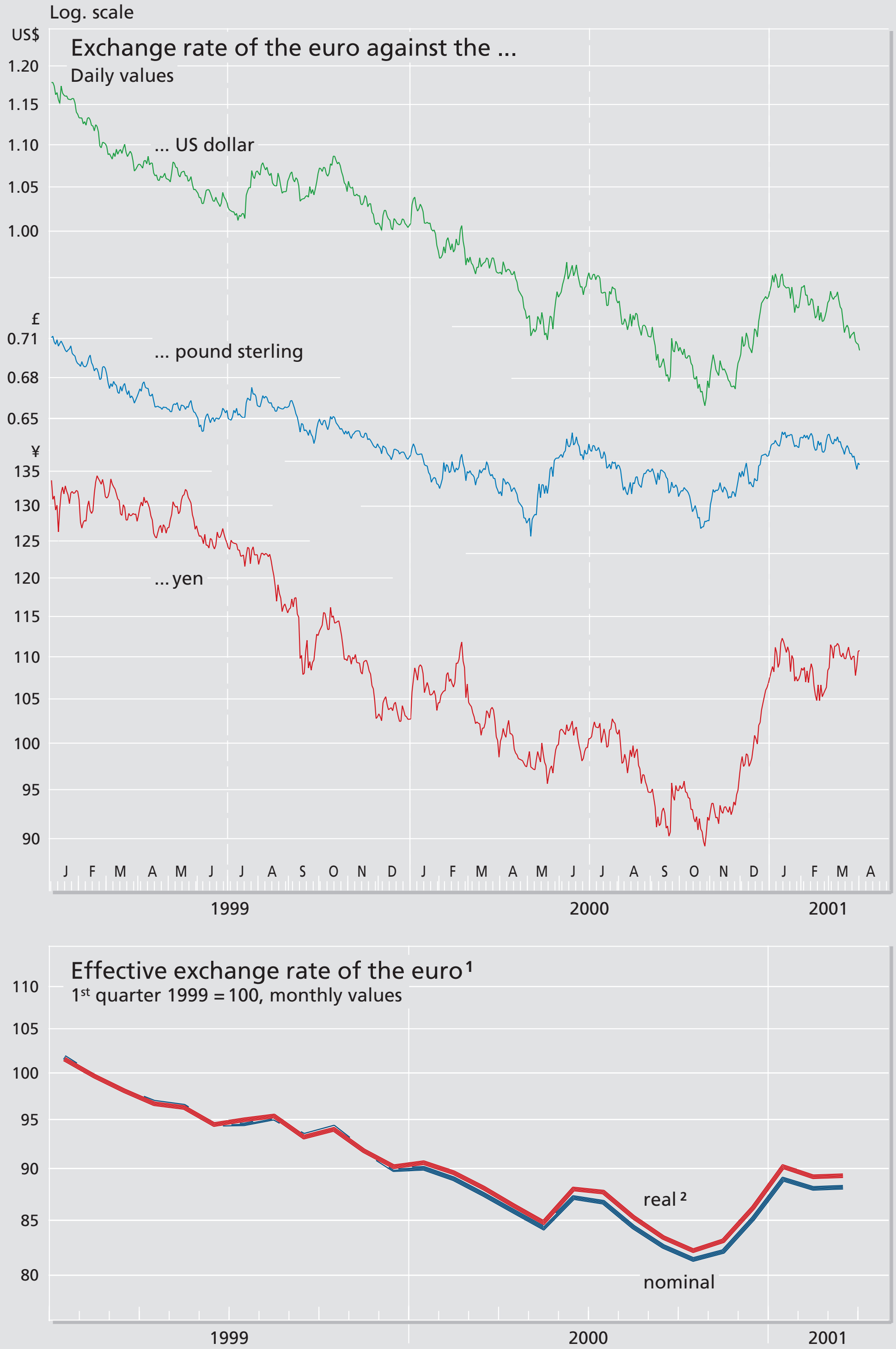
Foreign trade was again one of the mainsprings of economic growth in the euro area in 2000. European exporters benefited particularly much from the vigorous expansion and high absorptive capacity of foreign markets, after the consequences of the financial crises in Asia and eastern Europe had been overcome. Moreover, their competitiveness in price terms vis-à-vis non-euro-area countries improved as the depreciation of the euro persisted. With the increasing utilisation of their production capacities, in the further course of the year suppliers from the euro area took advantage of the favourable competitive conditions to raise their prices, too, in order to pass on to customers the higher cost of imported inputs, and to widen their profit margins. On balance, the value of the euro area's exports, calculated at current prices, rose on the year by 19½% in 2000. About eight percentage points of that rise were apparently accounted for by the simultaneous increase in export unit values, so that export growth was powerful in volume terms, too.

... and much more expensive imports

On the other hand, import turnover also increased strongly. The value of merchandise imports actually went up on the year rather faster (by 25%) than that of exports. However, a large part of that increase must be put down to distinctly higher import prices; the unit values of imports were about 22% above the 1999 level. That reflects, in particular, the substantial upturn in the cost of crude oil, which also pushed up the prices of other energy imports significantly. In addition, the prices of other merchandise imports expressed in euro went up on account of the euro depreciation.

Exchange rate of the euro

Chart 3



1 According to calculations by the ECB against the currencies of 13 or (from 2001 onwards) 12 countries. — 2 Based on consumer prices; March 2001 estimated.

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Current account deficit owing to deterioration in the terms of trade

The trade surplus of the euro area consequently dropped by € 23½ billion in 2000, to € 60 billion. By contrast, the deficit in the field of "invisible" current transactions remained almost unchanged, with the result that the decline in the foreign trade surplus, which likewise reflects the deterioration in the terms of trade, worked through to the current account almost in full. After a deficit of just under € 6 billion in 1999, according to the provisional annual outturn, the euro area recorded a deficit on current account with non-euro-area countries of € 28½ billion (or approximately ½ % of GDP) in the year under review.

Euro under downward pressure until well into the autumn ...

Until well into the autumn of last year, the euro was exposed to downward pressure against all major currencies. In the early summer, the single European currency picked up for a while, but the downward trend reasserted itself in the further course of the year, until the exchange rate of the euro reached its lowest level ever towards the end of October. At that time, the weighted average depreciation against the currencies of major trading partners amounted to 11% since the beginning of the year, after price losses of over 13 % had been recorded in 1999.

... especially against the US dollar

The markets' attention was focused, above all, on movements vis-à-vis the US dollar, which also determined the overall trend. Thus, the euro depreciated against the US dollar from the beginning of 2000 until its all-time low towards the end of October (at some $ 0.83) by more than 18 %. Together with its losses in the previous year, the euro had thus declined in value against the US dollar by 30 % since its launch. For the unexpectedly strong and resilient growth in the United States over the past few years has caused the US economy to become one of the most coveted investment targets of investors from all over the world. Huge sums have poured into dollar assets, particularly from the euro area. The US dollar continued to fly high even after conditions in the euro area had distinctly improved, whereas the first "skid marks" were emerging in the United States.

Strengthening of the euro towards the end of 2000

In the long run, the undue depreciation of the euro would have posed risks to price stability in the euro area. Hence the European Central Bank, along with the US and Japanese monetary authorities, tried at the end of September to counteract the exchange-rate distortions by means of coordinated foreign-exchange-market intervention. But it was only when it turned out, towards the end of October, that third-quarter US economic growth had been surprisingly low that the euro was able massively to regain ground. The European Central Bank buttressed the swing in sentiment in the first few days of November by means of further intervention in the dollar market. Along with the burgeoning bad news on the US economy, which had already ushered in a sharp correction of equity-market prices, fears of a "hard landing" of the US economy multiplied towards the end of the year. At the same time, the capital outflows from the euro area slackened during the autumn months.

Exchange-rate adjustment eases conditions for anti-inflation policy

Under the thus-transformed market conditions, the euro appreciated markedly in the closing weeks of last year. At the beginning of 2001, it stood at US$ 0.94, representing an appreciation of 14 % against the all-time low of October. In the further course of the new year, however, the euro depreciated again against the US dollar. Most recently, it stood at US$ 0.90 against the US dollar, only roughly 9 % above its value at the end of October. Against other currencies, such as the yen, however, the euro has continued to appreciate since the beginning of the year. As a weighted average against the twelve most important partner currencies, its appreciation since autumn 2000 has amounted to a good 11%. Measured in terms of the substantial undervaluation of last autumn, this improvement constitutes a welcome correction, thanks to which anti-inflation policy in the euro area has become somewhat easier.

II. Monetary policy and financial markets

1. The monetary policy of the Eurosystem

(a) Further tightening of monetary policy up to autumn

Tightening of monetary policy stance

Last year, the Governing Council of the ECB continued the tightening of the monetary policy course that had been initiated in November 1999 and raised official interest rates six times up to October 2000 by a total of 1¾ percentage points. Thereafter it left official interest rates unchanged. Since then, the official central bank interest rates have been 2 ¼ percentage points higher than at their low in 1999. This means that, even though the monetary policy reins were significantly tightened, monetary policy did not move on to a really restrictive course. Such a tightening was called for because the risks to price stability increased more strongly than expected last year. The abundant provision of liquidity and the economic upturn in the euro area as well as high oil prices and the low external value of the euro all played a part in this. The interest-rate increases were intended to prevent external price impulses spreading to prices and costs in the euro area and to safeguard price stability over the medium term, thereby contributing to a sustained high level of growth in the euro area.

Interest-rate policy consistent with strategy

The Governing Council of the ECB took its interest-rate-policy decisions on the basis of and in line with its monetary policy strategy. The strategy allows the Governing Council to counter the various risks to price stability in an effective and forward-looking manner and to provide a transparent and credible justification of its interest-rate-policy decisions. Since knowledge of the transmission process is imperfect and the available data is, at times, uncertain, the Governing Council preferred to proceed cautiously and in stages. On the other hand, it did not hesitate to raise interest rates in quick succession.

Interest-rate increases from February to June …

In February, March and April, the Governing Council raised official interest rates at short intervals, each time by a uniform ¼ percentage point. At the beginning of June, the Eurosystem interest rates were again increased – this time by ½ percentage point. The fixed rate for the volume tenders and the minimum bid rate for the main refinancing operations, which were conducted from the end of June as variable rate tenders, were each placed in the middle of the higher interest rate corridor determined by the rates for the standing facilities. The repeated tightening of the interest-rate-policy stance in the first half of the year was necessary because both pillars of the ECB's monetary policy strategy pointed to increasing price risks. Given the fact that monetary growth was above the reference value, the provision of liquidity was still abundant. At the same time, oil prices continued to rise and the decline in the euro exchange rate persisted.

… as well as in September and October

After a policy of staying on the charted course over the summer months, the ECB Governing Council again raised official interest rates by ¼ percentage point in both September and October. This means that, since early October, the interest rates for the marginal lending facility and for the deposit facility have been 5.75 % and 3.75 %, respectively, and that the minimum bid rate for the main refinancing operations has amounted to 4.75 %. Although monetary growth had been tending to weaken, external price impulses proved to be more durable than previously assumed. Oil prices, for example, rose to new peaks after the middle of the year, and the external value of the euro was continuing its persistent move downwards.

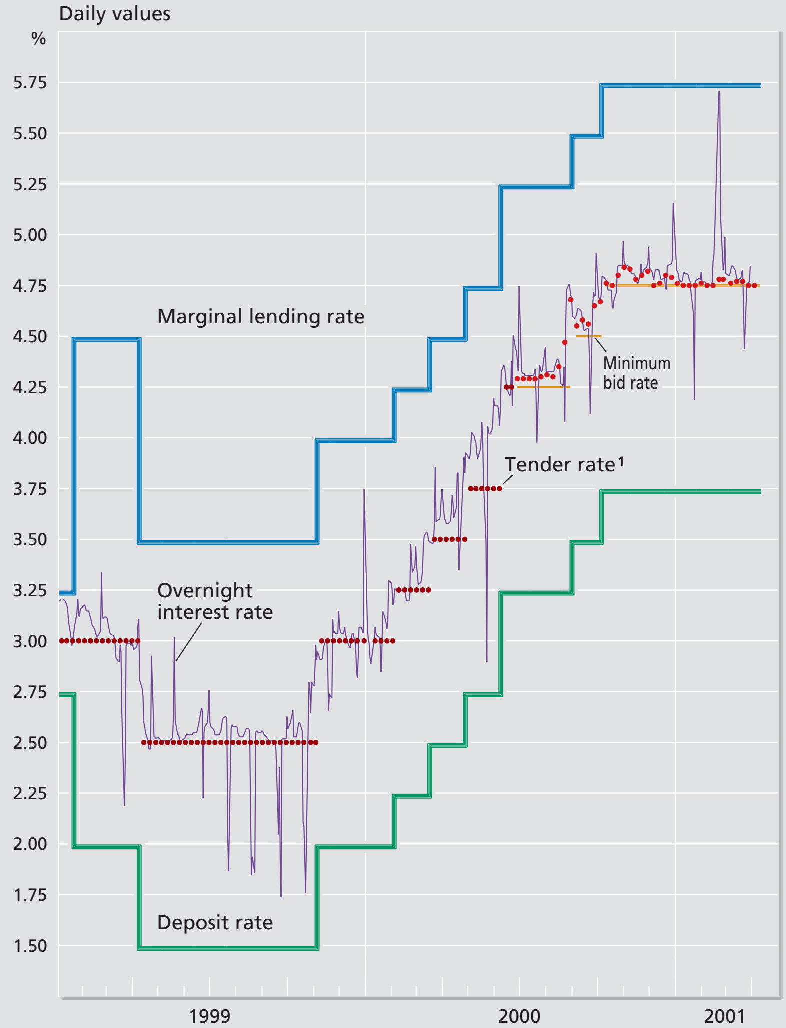
Interest-rate policy steady since then

From late autumn, the Eurosystem steered a steady monetary policy course and left the central bank interest rates unchanged. Given a perceptible slowdown in monetary growth and in bank lending, the provision of liquidity became more

Official interest rates and overnight interest rate

Chart 4

Daily values



1 Interest rate for main refinancing operations; single allotment rate (fixed-rate tender) and, from June 28, 2000, marginal allotment rate (variable rate tender).

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appropriate. The risks to price stability over the medium term also declined as a result of the fall in oil prices, the appreciation of the euro on the foreign exchange markets and a dampening of what had previously been very sharp overall economic growth. Overall, uncertainties for the euro area nevertheless remained high.

Interest-rate moves expected by market

The Eurosystem's interest-rate moves were invariably expected by the market. The forward quotations in the money market therefore rose sharply in the period before each increase in official rates. The ECB Governing Council's detailed public evaluation of the monetary policy environment evidently enabled

Record of domestic and external monetary policy measures

January 5, 2000
For the first time, the Eurosystem conducts a fine-tuning operation, in the shape of the collection of fixed-term deposits by means of a one-week quick tender. This measure is aimed at normalising liquidity conditions in the money market after the successful transition to the year 2000.

January 17, 2000
The central rate of the Greek drachma in the European exchange rate mechanism ERM II is raised by 3 ½ %.

January 20, 2000
The Governing Council of the ECB announces that the Eurosystem intends to allot an amount of € 20 billion in each of the longer-term refinancing operations to be carried out in the first half of the year 2000.

February 3, 2000
The Governing Council of the ECB raises the interest rate on the main refinancing operations to be conducted from February 9, 2000 onwards by one-quarter of a percentage point to 3.25 %, and the interest rates on the marginal lending facility and the deposit facility by likewise one-quarter of a percentage point, to 4.25 % and 2.25 %, respectively – both with effect from February 4, 2000.

February 9, 2000
The Bank announces that, from December 17, 2001, credit institutions may supply residents with around 53 million "starter kits" of euro coins worth DM 20 each, thus contributing to a smooth cash changeover.

February 11, 2000
In agreement with the Federal Government, the Bank provides an interest-free long-term loan of € 300 million to finance debt relief granted by the International Monetary Fund (IMF) to heavily-indebted poor developing countries. Besides Germany, other IMF creditor countries and many developing countries make bilateral contributions.

February 15, 2000
The Federal Finance Ministry announces the establishment of the legally independent, government-owned *"Bundesrepublik Deutschland-Finanzagentur GmbH"*, in which the debt-management duties hitherto performed by the Federal Government, the Federal Debt Administration and the Bank will be combined.

March 9, 2000
The Greek Government applies for admission to European monetary union with effect from January 1, 2001.

March 16, 2000
The Governing Council of the ECB raises the interest rates on the marginal lending facility and the deposit facility by one-quarter of a percentage point each to 4.5 % and 2.5 %, re-

spectively, with effect from March 17, 2000, and the interest rate on the main refinancing operations to be conducted from March 22, 2000 onwards by likewise one-quarter of a percentage point to 3.5 %.

April 6, 2000
The Central Bank Council of the Bank approves the Bank's annual accounts for the financial year 1999. The profit for the year, amounting to € 3.90 billion, is paid over to the Federal Government.

April 27, 2000
The Governing Council of the ECB raises the interest rate on the main refinancing operations to be conducted from May 4, 2000 onwards by one-quarter of a percentage point to 3.75 %, and the interest rates on the marginal lending facility and the deposit facility by likewise one-quarter of a percentage point, to 4.75 % and 2.75 %, respectively – both with effect from April 28, 2000.

May 3, 2000
The ECB and the EU Commission, in their Convergence Report, confirm that Greece meets the criteria for admission to European monetary union.

May 25, 2000
The ECB announces that the entire TARGET system will remain closed on December 31, 2001 in order to ensure the smooth transition of retail-payment systems and internal bank systems to the euro.

June 8, 2000
The Governing Council of the ECB raises the interest rates on the marginal lending facility and the deposit facility by one-half of a percentage point to 5.25 % and 3.25 %, respectively, with effect from June 9, 2000, and the interest rate on the main refinancing operations to be settled on June 15 and 21, 2000 (which will be conducted in the form of fixed-rate tenders) by likewise one-half of a percentage point, to 4.25 %.

Moreover, the Governing Council of the ECB announces that, starting with the operation to be settled on June 28, 2000, the main refinancing operations of the Eurosystem will be conducted, until further notice, in the shape of variable-rate tenders, applying the multiple-rate auction procedure. The Governing Council sets a minimum bidding rate of 4.25 % for those operations. The switch to variable-rate tenders does not imply any change in the monetary policy stance, but is a response to the massive overbidding manifest under the fixed-rate tender procedure.

June 19, 2000
The Ecofin Council, after having considered the Convergence Reports of the EU Commission and the ECB, after having consulted the European Parliament and after a debate in the European Council, decides that Greece meets the essential conditions laid down in Article 121 (1) of the EC Treaty, and revokes the derogation of Greece with effect from January 1, 2001.

In addition, in line with a proposal by the EU Commission, and after having consulted the ECB, the Ecofin Council sets the irrevocable conversion rate of the Greek drachma vis-à-vis the euro with effect from January 1, 2001. This conversion rate is identical to the central rate of the drachma against the euro obtaining in the exchange rate mechanism ERM II.

June 21, 2000
The Governing Council of the ECB announces that, in the longer-term refinancing operations to be conducted in the second half of 2000, the Eurosystem intends to allot an amount of € 15 billion per operation.

July 17, 2000
The Central Bank Council declares itself in favour of fully integrating banking supervision in the Bank, irrespective of the Bank's future structure.

August 3, 2000
The Governing Council of the ECB announces the financial modalities for credit institutions for the 2002 cash changeover. It has decided, inter alia, that the euro cash frontloaded to credit institutions from September 1,

Record of domestic and external monetary policy measures

(continued)

2001 onwards is to be debited in three equal amounts on January 2, 23 and 30, 2002.

August 31, 2000
The Governing Council of the ECB raises the minimum bidding rate on the main refinancing operations to be conducted from September 6, 2000 onwards by one-quarter of a percentage point to 4.50 %, and the interest rates on the marginal lending facility and the deposit facility by one-quarter of a percentage point to 5.50 % and 3.50 %, respectively – both with effect from September 1, 2000.

September 14, 2000
The ECB announces the sale of accrued interest income from foreign exchange reserves in an amount equivalent to € 2.5 billion, and of future inflows of funds, in order to maintain the structure and risk profile of the ECB's balance sheet as it was at the beginning of 1999.

September 22, 2000
For the first time, the ECB intervenes in the foreign exchange market, along with other G-7 central banks, in support of the euro.

September 28, 2000
Danish residents, in a referendum, opt out of joining European monetary union.

October 1, 2000
The Bank sets up an Economic Research Centre to intensify its in-house economic research.

October 5, 2000
The Governing Council of the ECB raises the interest rates on the marginal lending facility and the deposit facility by one-quarter of a percentage point to 5.75 % and 3.75 %, respectively, with effect from October 6, 2000, and the minimum bidding rate on the main refinancing operations to be conducted from October 11, 2000 onwards by likewise one-quarter of a percentage point to 4.75 %.

October 26, 2000
The euro falls to an all-time low of US$ 0.8225.

November 3-9, 2000
The ECB intervenes unilaterally in the foreign exchange market in support of the euro.

December 14, 2000
The Governing Council of the ECB reviews and reaffirms the quantitative reference value for monetary expansion which was set in December 1998, viz. an annual growth rate of 4 ½ % for the monetary aggregate M3.

The Governing Council of the ECB decides that credit institutions which are counterparties of the Eurosystem may pass on frontloaded euro banknotes to credit institutions outside the euro area from December 1, 2001.

January 1, 2001
Greece joins the Eurosystem, thus becoming the twelfth EU member state to adopt the euro.

January 4, 2001
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 2001. It announces that it may adjust the amount allotted in the event of unexpected developments in liquidity requirements during the year.

January 10, 2001
The Bank commissions the five German mints to strike one million DM 1 gold coins to commemorate the phasing-out of the Deutsche Mark. The net proceeds of the sale of the coins are to accrue to the foundation "Money and Currency" – which is yet to be set up – up to the amount of DM 100 million.

January 25, 2001
The Central Bank Council points out that the Federal Finance Minister's suggestion of amalgamating the supervisory offices for banking, the insurance industry and securities trading is incompatible with the Central Bank Council's conviction as to how banking supervision in Germany should be organised in future. In view of central banks' increasing responsibility for the stability of the financial system, banking supervision should be assigned to them.

March 23, 2001
The Central Bank Council in principle endorses the Federal Finance Ministry's proposals concerning the reform of the Bank's structure, which provide, *inter alia,* for a new Executive Board to be established as the Bank's central governing and decision-making body, and for the preservation of the Land Central Banks, though their present areas of sole responsibility are abolished. As far as the restructuring of financial supervision is concerned, there are, in the Central Bank Council's view, persuasive reasons for integrating banking supervision in the Bank. In the event of a new cross-sector supervisory institution being set up to oversee banking, insurance and securities-trading operations, the Bank must remain closely involved in ongoing banking supervision, and in the formulation of the regulatory framework.

April 4, 2001
The Central Bank Council approves the Bank's annual accounts for the financial year 2000. The profit for the year, amounting to € 8.35 billion, is paid over to the Federal Government.

the market players to form a consistently accurate expectation of the future monetary policy course. This did not, however, imply that the market had perfect foresight of the timing or scale of individual monetary policy measures. The increase in official rates in June, for example, was higher than the market consensus, and the increase in September was below it. On the overnight money market, the difference between the Euro Overnight Index Average (EONIA) and the main refinancing rate, which was generally clearly positive, widened noticeably days before an expected increase in the cost of refinancing, even if there was an abundant provision of liquidity by the Eurosystem. This interest-rate situation encouraged high bids in the main refinancing operations which, up to June, had invariably been organised as fixed-rate tenders. Ultimately, total bids by the banks exceeded the volume of their eligible assets and the allotment rates fell to below 1 %.

Successful changeover to variable rate tenders

In response to the massive overbidding in the fixed-rate tenders, the ECB Governing Council decided to conduct the main refinancing operations, from the end of June until further notice, as variable rate tenders under a US-style multiple-rate auction procedure, in which each bidder pays the individually bid interest rate. For this, a minimum bid rate corresponding to the fixed rate of the preceding volume tenders was set. The minimum bid rate took on the function of signalling monetary policy that had previously been the role of the fixed rate in the volume tender. The changeover to the variable rate tender therefore did not imply any change in the monetary policy stance. The volumes of bids were, in fact, dramatically reduced and initially fell to no more than twice or three times the allotted amounts. With the end of the period of rising interest rates, they again became closer to the actual liquidity needs. In one operation in February 2001, the bidding situation was reversed. Given the fact that overnight deposit rates continued to be at the same level as the minimum bid rate, the overall bidding volume remained below the allotment volume envisaged by the ECB. The changeover to the variable rate tender did not lead to any problems in terms of interest-rate policy either. The vast majority of bids were at near-market rates and were generally focused on a small number of interest-rate levels. The marginal allotment rates were mostly very close to the minimum bid rate, which thus fulfilled its function as a monetary policy signal and served as an anchor for the formation of interest rates on the money market. Overall, the difference between the rate applying to overnight money and the minimum bid rate was no greater than the earlier difference vis-à-vis the fixed-rate tender, nor has volatility in the overnight money market rate increased. The average number of participants in the tender procedures fell from just over 800 to around 600. With the changeover to the variable rate tender, there was only a slight change in the percentages of refinancing accounted for by individual financial centres in the euro area.

Publication of the expected liquidity needs

With the changeover to the variable rate tender, the Eurosystem began to state its expectation of the banking system's liquidity needs when announcing the main refinancing operations. These needs are calculated from the estimated development of the "autonomous" factors that determine liquidity, i.e. those factors not controlled by the Eurosystem, such as banknotes in circulation or general government deposits with the Eurosystem. What is made public is the average figure for the days until the next main tender or up to the end of the reserve maintenance period. This estimate is fraught with uncertainties, but together with information on the reserve requirement, the funds already made available and the reserve requirements that have already been met, it allows the credit institutions to gauge the allotment volume for the forthcoming main tender and thereby makes their liquidity planning easier.

Reversal in interest-rate expectations at end of year

With the slowdown in US economic growth, the decline in oil prices and the reversal of the interest-rate trend in the United States at the turn of the year, expectations of rising interests receded in the euro area as well, giving way, instead, to expectations of lower interest rates. Against that backdrop, the marginal allotment rate for the main refinancing operations in January and February 2001 went down to the level of the minimum bid rate, which proved to be an effective mainstay of the very short-term quotations on the euro money market. Even so, the yield curve on the money market became inverse.

Greece integrated into Eurosystem

On January 1, 2001, Greece became the 12th EU member state to introduce the euro. Greece was integrated without problems into the Eurosystem. In the run-up to joining the Eurosystem, the Greek drachma reached the conversion rate which had been set by the Council of Economic and Finance Ministers (Ecofin) in June 2000 and which corresponded to the central rate in the exchange rate mechanism ERM II. In December, the Greek central bank interest rates had been lowered to the level of the Eurosystem. Greek credit institutions were integrated smoothly into the European money market and into the liquidity management of the Eurosystem. The Greek central bank had already brought its monetary policy instruments into line with those of the Eurosystem some time before.

During the period under review, the Eurosystem money market was managed solely through the weekly main refinancing operations. The volume of these op-

Money market management via main refinancing operations

erations amounted to € 159 billion on an annual average; much as in 1999, their share in refinancing was roughly three-quarters. In determining the scale of the main refinancing operations, the ECB endeavoured to guide the rate for overnight money close to the main tender rate and to limit its volatility. Accordingly, the ECB's provision of funds was generally geared to steering the credit institutions' central bank balances quickly towards the required reserve amount at the start of each reserve maintenance period and to limiting daily fluctuations in these balances by offsetting the liquidity effects of autonomous factors as soon as possible. In doing so, the ECB had to take particular account of the high degree of volatility of general government deposits with the Eurosystem and the calendar-related changes in banknotes in circulation. Furthermore, there was an equalisation of the liquidity withdrawals that had resulted from the Eurosystem's selling of interest income from foreign exchange reserves and from the currency market interventions in autumn 2000.

Liquidity equalisation on interbank market

There were no problems in allocating liquidity on the European secondary market. Similar rates for overnight money were quoted in the various European financial centres, which indicates that cross-border liquidity equalisation between the banks is highly efficient. During 2000, the credit institutions in Germany became net lenders rather than net borrowers of central bank balances on the euro money market. All Eurosystem open-market operations continued to be collateralised primarily by tier-1 debt instruments. The cross-border use of collateral has continued to increase.

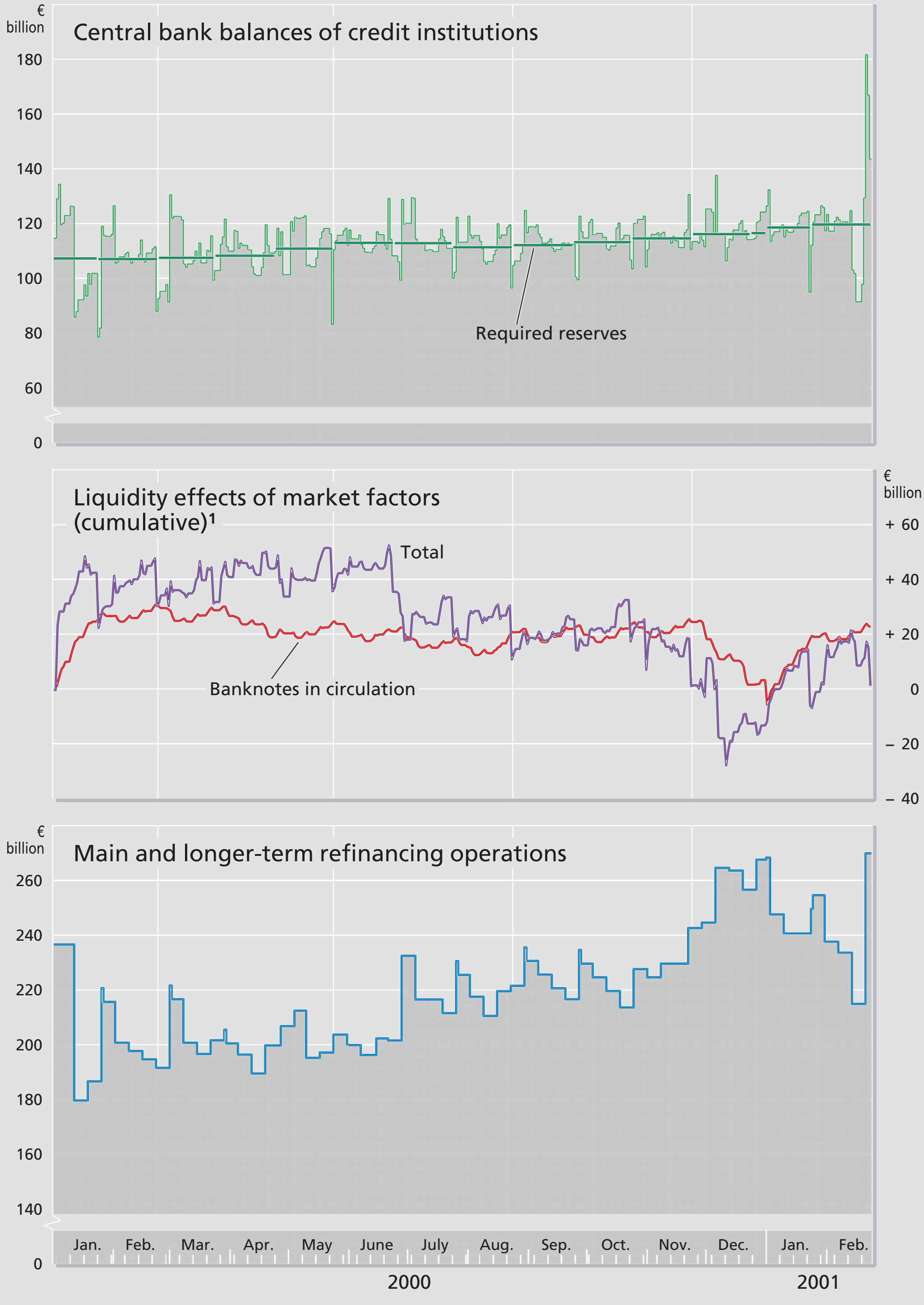
Longer-term refinancing operations

At an annual average of just over € 57 billion, the monthly longer-term refinancing operations – which the banks use as an instrument of longer-term liquidity planning – accounted for around one-quarter of the entire refinancing volume. The amounts to be purchased in the individual basic tenders were cut by € 5 billion from January 2000 and again by the same amount from July 2000, to € 15 billion, after being raised to € 25 billion in each case in the autumn of 1999 in order to smooth the way for the millennium date change. Given the banks' increased refinancing requirement, this amount was again raised for the year 2001 to € 20 billion per transaction date until further notice. The numbers participating in the basic auctions fell somewhat during the year. The German share in the total basic tender volume remained large at roughly 60 %; in the main tender the share continued to be slightly less than one-half of all the allotments.

Liquidity management in the Eurosystem

Chart 5

Daily values



1 Banknotes in circulation, general government deposits with the Eurosystem, net foreign reserves of the Eurosystem and other factors; provision (+) or absorption (–) of central bank balances.

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Factors determining bank liquidity *

Table 3

€ billion; changes during the period

Item	Feb. 24, 1999 to Feb. 23, 2000	2000–2001 Feb. 24 to May 23	May 24 to Aug. 23	Aug. 24 to Nov. 23	Nov. 24 to Feb. 23	Total
I. Provision (+) or absorption (–) of central bank balances by						
1. Change in banknotes in circulation (increase: –)	– 18.3	– 6.2	– 5.4	+ 6.5	– 2.1	– 7.2
2. Change in general government deposits with the Eurosystem (increase: –)	– 8.2	+ 7.3	– 6.9	– 1.0	– 7.2	– 7.8
3. Change in net foreign reserves [1]	+ 39.6	+ 11.0	+ 3.2	+ 16.6	– 20.7	+ 10.1
4. Other factors [2]	– 35.3	– 7.6	– 8.2	– 29.2	+ 22.9	– 22.1
Total	– 22.2	+ 4.5	– 17.3	– 7.1	– 7.1	– 27.0
II. Monetary policy operations of the Eurosystem						
1. Open-market operations						
(a) Main refinancing operations	+ 26.3	+ 11.7	+ 20.5	+ 20.6	+ 5.2	+ 58.0
(b) Longer-term refinancing operations	+ 36.3	– 10.5	– 4.6	– 10.4	+ 4.8	– 20.7
(c) Other operations [3]	– 30.0	–	± 0.0	–	–	± 0.0
2. Standing facilities						
(a) Marginal lending facility	– 3.7	+ 0.3	– 0.3	+ 0.1	+ 2.4	+ 2.5
(b) Deposit facility (increase: –)	+ 1.1	– 2.1	+ 2.0	+ 0.1	– 0.2	– 0.2
Total	+ 30.0	– 0.6	+ 17.6	+ 10.4	+ 12.2	+ 39.6
III. Change in credit institutions' current accounts (I + II)	+ 7.8	+ 3.9	+ 0.4	+ 3.3	+ 5.0	+ 12.6
IV. Change in the minimum reserve requirement (increase: –)	– 9.1	– 3.8	– 0.5	– 3.2	– 5.1	– 12.6
Memo items: [4]						
Main refinancing operations	130.9	142.6	163.1	183.7	188.9	188.9
Longer-term refinancing operations	70.5	60.0	55.4	45.0	49.8	49.8
Other operations	–	–	–	–	–	–
Marginal lending facility	0.1	0.4	0.1	0.2	2.6	2.6
Deposit facility	0.2	2.3	0.3	0.2	0.4	0.4

* Calculated on the basis of daily averages in the last reserve maintenance period of the period under review. — **1** Including liquidity-neutral valuation adjustments at the end of the quarter. — **2** Including outright transactions and the issuance of debt certificates (overhanging from stage two). — **3** Including monetary policy operations concluded in stage two and maturing at the start of stage three; excluding outright transactions and the issuance of debt certificates. — **4** Amounts outstanding on an average of the last reserve maintenance period of the period under review.

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Fine-tuning operations

The Eurosystem made scarcely any use of fine-tuning operations. The main reasons for this were not only the adequate provision of funds through regular open-market operations but also the buffer function of the minimum reserves and efficient cross-border liquidity management by the banks. In the first week of January 2000, the Eurosystem countered the excessive liquidity, which had resulted in part from the large reflux of currency after the turn of the year, by the collection of fixed-term deposits using a one-week variable-rate quick tender. On June 21, the Eurosystem offset an unexpectedly high recourse to the deposit facility on the previous evening by means of a liquidity-providing one-day quick tender.

Credit institutions' assistance measures

Overall, the credit institutions made only moderate use of the standing facilities in 2000. At an annual average of € 0.4 billion and € 0.5 billion, respectively, recourse to the marginal lending facility and the deposit facility was below the comparable figures for 1999. Moreover, this was focused on the end of the reserve maintenance period. In February 2001, recourse to the marginal lending facility rose very sharply for a short time against the backdrop of the underbidding in the preceding main tender.

Increased refinancing needs

There was a further increase in the credit institutions' refinancing needs in the period under review (see table on page 36). This was due, firstly, to the rise in the minimum reserve requirement and in the volume of banknotes in circulation within the euro area, even though there was a decline in the circulation of Deutsche Mark banknotes during the same period. Secondly, general government deposits with the Eurosystem increased. Finally, the decrease in the net foreign reserves – adjusted for the valuation adjustments and interest income on foreign currency assets that have no impact on liquidity – had the effect of withdrawing liquidity. The withdrawals of market liquidity and the reduction of the basic tender volume were principally offset by a sharp increase in the main refinancing operations to € 188.9 billion.

(b) Effective two-pillar strategy

Quantitative definition of price stability ...

In 2000, the stability-oriented monetary policy strategy adopted by the Governing Council of the ECB at the end of 1998 again demonstrated its effectiveness as a sound basis for the monetary policy decisions of the Eurosystem. What was particularly helpful in this context was the quantitative definition of price stability as a "year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2 %" over the medium term. By setting this objective, the ECB Governing Council has not only provided a dependable foundation for reviewing the Eurosystem's stability efforts over the medium term. Last year, the market players' longer-term inflation expectations were also kept at a low level even during a period in which the quantitative upper limit for the year-on-year rate of HICP inflation had clearly been overstepped under the impact of rising prices for energy and imports.

... and "two pillars"

In order to assess the risks to price stability, the Governing Council of the ECB relies on the "two pillars" of its stability-oriented monetary policy strategy. The first pillar concerns the analysis of ongoing developments in the broadly defined monetary aggregate M3,[1] including its components and counterparts, especially lending. The reference value for the three-month moving average of the annual growth rates of M3 serves as a yardstick of comparison. The reference value remained unchanged at 4½ % in 2000. The reason for the prominent role assigned to the monetary aggregate M3 within the Eurosystem's monetary policy strategy is its quality as an indicator of longer-term price movements. In addition, the second pillar involves the ECB Governing Council studying a large number of non-monetary factors which likewise have an impact on future price developments. This broadly based underpinning of monetary policy decisions takes account of the uncertainties which the Eurosystem faces with regard to the monetary policy transmission mechanism. In this context, inadequate availability of data, uncertainty about the degree of heterogeneity and potential changes in behaviour within the euro area as well as competing approaches to explaining inflation play a particularly important role.

Inflation projection as part of the second pillar

Since December 2000, the second pillar's broadly based analysis of the outlook for prices and of the risks to price stability has been augmented by the publication of the Eurosystem staffs' macroeconomic projection for HICP and GDP, including the latter's components, in the euro area. The projections are based on unchanged short-term interest rates in the euro area and constant bilateral exchange rates as well as certain assumptions about the euro area's external environment (including oil prices). The projections will be published twice a year in future. The chosen form of publication – a detailed account of the underlying assumptions, and the announcement of ranges instead of point projections, responsibility for the content lying with the central bank staffs rather than the Governing Council – is intended not only to allow the general public to make an informed assessment of the projections but also to integrate the projections properly into the existing framework of the Eurosystem's two-pillar strategy.

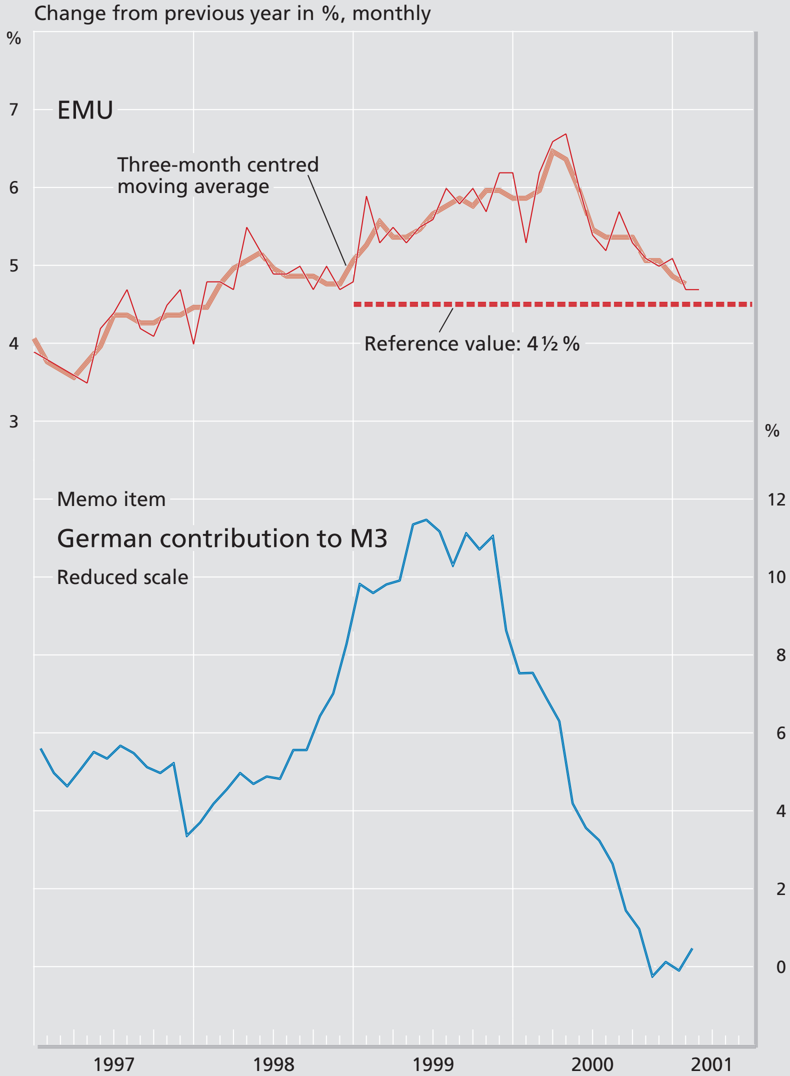
Monetary growth in euro area above reference value, but at a slackening pace

Monetary growth in 2000 was again continuously above the reference value of 4½ %. In the course of the year, however, the pace of monetary expansion had slowed down and moved closer to the reference value. A sharp rise in M3 in February and March, which led to the moving average of the 12-month rates climbing to 6½ %, was followed in the second quarter by a perceptible calming

1 The aggregate M3 comprises currency in circulation and the short-term deposits with monetary financial institutions (MFIs) in the euro area (overnight deposits, deposits with an agreed maturity of up to two years, deposits redeemable at notice of up to three months held in each case by euro-area residents), plus marketable instruments such as the repurchase agreements of MFIs with domestic non-banks, the debt securities issued by the MFIs with an original maturity of up to two years as well as money market fund units and money market paper. It is thus more broadly defined than the aggregate used in Germany until the end of 1998.

Growth of the money stock M3 in the euro area

Chart 6



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of monetary growth. Although it accelerated again in July and August under the impact of the auction of German UMTS licences, the pace of growth became calmer again thereafter. On an average of the months October to December 2000, the monetary aggregate M3 was 5.1% higher than in the corresponding period of 1999. In February of 2001, M3 was still 4.7 % higher than a year before.

Interest-rate influences on M3 growth

Overall, the slowdown in monetary expansion was probably due, above all, to higher short-term interest rates and the accompanying rise in the opportunity costs of money holdings. This is suggested by the fairly weak growth in cash holdings and in the overnight deposits and deposits with an agreed notice up to three months, which are not remunerated or carry only a small amount of interest. By contrast, there was a sharp rise in the M3 components which carry rates of interest that are close to market rates. Although these opposing effects make it more difficult to control the money stock M3 in the short term, they do not call into question its outstanding quality as an indicator of longer-term price movements. Given that investment structures still vary quite widely across the euro area, however, the contrasting interest-rate elasticities of the components also intensify the heterogeneity of monetary expansion in the euro-area countries which is already inherent in their diverging economic development and in special national influences.

Development of the components of M3

Of the components of the monetary aggregate M3, currency in circulation was reduced by € 2 billion last year. In Germany, in particular, there was a marked fall. Contributory factors here were rising interest rates and a normalisation of money holdings following the smooth changeover to the year 2000. Added to this were return flows of banknotes from non-euro-area countries. The development in overnight deposits was moderate on the whole. An increase in January 2000, which was untypical for the time of year and which was probably due to the perceptible decline in currency in circulation in that month, was followed by a reduction in the second quarter, when further interest-rate increases led to shifts into other forms of investment. Given the fact that their interest-rate disadvantage had become distinctly greater, deposits redeemable at a period of notice of up to three months were continuously reduced in the course of 2000 – if the interest-rate payments at the end of the year are disregarded. Deposits with an agreed maturity of up to two years are likely to have benefited most from this. In 2000, they grew by a total of € 109 billion, whereas in 1999 they had declined by € 21 billion. Growth in marketable instruments was also very dynamic again, however. After rising by € 70½ billion in 1999, they increased by a further € 92½ billion. Repurchase agreements accounted for one-third of this (€ 31½ billion). In Italy and Spain, where they are traditionally widely used, repos increased especially strongly. The sharp growth in bank debt securities with an original maturity of up to two years continued in 2000 at € 20 billion. By contrast, growth declined in money market fund certificates and money market paper (from € 80 billion in 1999 to € 41 billion). The main reason for this was the much lower demand for German money market paper, which had been particularly heavy from foreign investors in 1999 owing to the fact that it represented a secure form of investment in the run-up to the millennium date change.

Monetary developments in the euro area

Table 4

Changes in the course of the year

Item	Euro area 1999	Euro area 2000	Memo item German contribution 1999	Memo item German contribution 2000
	in %			
I. Growth of the monetary aggregates				
M1 [1]	10.1	5.7	8.5	3.2
M2 [2]	5.3	3.7	5.1	– 0.8
M3 [3]	6.2	5.1	8.7	0.2
	€ billion			
II. Money stock and its counterparts				
Money Stock M3 (=1+2–3–4–5)	278.2	246.6	113.0	2.2
Currency in circulation and overnight deposits	179.4	112.3	43.4	17.6
Other short-term bank deposits	28.3	41.6	21.1	– 27.4
Marketable instruments	70.5	92.7	48.5	12.1
Balance sheet counterparts				
1. Credit to non-MFIs in the euro area	665.9	516.6	206.9	123.1
Credit to general government	86.7	– 115.1	37.6	– 10.4
Credit to other non-MFIs in the euro area	579.2	631.6	169.3	133.6
2. Net claims on non-euro-area residents	– 176.8	– 98.6	– 57.3	– 10.4
3. Deposits of central government	4.4	22.6	1.9	23.1
4. Longer-term financial liabilities to other non-MFIs in the euro area	267.3	160.9	116.4	56.1
5. Other counterparts of M3	– 60.8	– 12.0	– 81.7	31.3

1 Currency in circulation and overnight deposits held by euro-area residents with MFIs in the euro area. — **2** 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 redeemable at notice of up to three months). — **3** M2 plus marketable instruments (repurchase agreements concluded by MFIs with non-MFIs in the euro area, debt securities with an original maturity of up to two years and money market fund units and money market paper issued by MFIs in the euro area).

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Review of the reference value

In its annual review of the reference value for monetary growth, the ECB Governing Council, at its meeting on December 14, 2000, decided to leave the reference value unchanged at 4½%. The Governing Council saw no reason to revise its assumptions about medium-term growth in real GDP of between 2% and 2½% or the trend decline of ½% to 1% in income velocity which were applied when deriving the reference value at the end of 1998. The Governing Council likewise adhered to the definition of price stability as an increase in HICP inflation for the euro area of below 2%. While acknowledging that progress had been made in terms of structural reforms within the euro area, the Governing Council perceived no clear indications of a measurable and sustained increase in productivity growth that would justify an adjustment of potential growth.

German contribution

The German contribution to euro-area M3 was decidedly weak in 2000. After double-digit annual growth rates at times in 1999, it remained virtually unchanged in 2000. This was due, firstly, to the normalisation of money holdings. Whereas the growth in deposits – especially overnight deposits – had been encouraged in Germany in 1999 by large-scale return flows from the euro market, deposits of domestic investors were shifted back to Luxembourg and London last year. Secondly, the comparatively large percentage of deposits carrying a low rate of interest in Germany meant that the rise in short-term interest rates curbed monetary growth in Germany more than in the other member states of the monetary union. This is true of overnight deposits and even more so of deposits with an agreed notice of up to three months, which were sharply reduced (see page 55). This development is likely to have mainly benefited forms of investment outside the German contribution to M3. This was not remotely offset by the building-up of deposits with an agreed maturity of up to two years, although such a development is typical of periods of rising interest rates.

(c) Determinants of monetary growth

Strong growth in lending to private sector

Monetary growth in the euro area in 2000 was again driven by the steep increase in lending to the private sector, which rose by € 631½ billion, or 10%. Enterprises' and households' buoyant demand for credit is a reflection, firstly, of the favourable economic situation in the euro area. The financing needed for the purchase of UMTS licences was an additional factor. The demand for credit was additionally fuelled by the large number of merger and acquisitions in the business sector, further significant rises in property prices in some parts of the euro area and large-scale direct investment in non-euro-area countries. The interest-rate-policy setting affected the expansion of credit in contrasting ways. In the first half of the year, expectations of higher interest rates led to borrowing being brought forward in many cases. In the second half of the year, the rise in short-term interest rates – together with a slowing-down of the upturn in the economy – curbed the demand for credit somewhat. Against that backdrop, the growth in loans to the private sector in the second half of the year, at an annualised rate of 8½%, was somewhat lower than in the first six months (10½%). At € 102 billion, or 16½%, in the reporting year, domestic MFIs stepped up their securitised lending to euro-area enterprises at only a slightly slower pace than in 1999 (18½%). The increase equally affected shares and other equities as well as securities other than shares.

Sharp reduction in lending to general government

By contrast, lending to general government was sharply reduced in 2000. The decline of € 115 billion was largely at the expense of securitised lending (– € 110 billion), which had been increased by € 84 billion in the preceding year. Loans granted to general government, on the other hand, was reduced by no more than € 5 billion net. The Federal Government alone reduced its direct borrowing from German MFIs by € 14 billion.

Moderate monetary capital formation

At € 161 billion, monetary capital formation in 2000 was significantly lower than in 1999 (€ 267½ billion). With the rise in longer-term interest rates that began in mid-1999, there had initially been a marked increase in the propensity to invest longer-term funds with MFIs. After the Eurosystem had likewise been steering short-term interest rates upwards from the end of 1999 and the interest-rate advantage of longer-term assets had significantly lessened due to the flattening of the yield curve, monetary capital formation perceptibly lost momentum. This primarily affected sales of bank debt securities with a maturity of more than two years; outside the MFI sector they were purchased to the equivalent value of € 68 billion, compared with € 113½ billion in 1999. Purchases by residents in non-euro-area countries probably accounted for some of this amount. As a result, the monetary capital formation shown in the statistics is likely to be somewhat overstated. Deposits with an agreed maturity of over three months, which traditionally play a major role only in Germany, went up by € 14 billion. Deposits with an agreed maturity of over two years, which had increased by € 56½ billion in 1999, remained virtually unchanged in the year under review.

Outflows in payment transactions with non-residents

The payment transactions of resident non-MFIs with non-residents in 2000 again resulted in net outflows of funds. The net external position of MFIs in the euro area, in which such transactions are reflected statistically, fell by € 98½ billion, compared with a decrease of € 177 billion in 1999. In addition to a significantly increased current account deficit, the outflow of funds is likely to have been caused mainly by portfolio transactions (including direct investment) with non-euro-area countries.

2. The financial markets in the euro area

(a) Stable capital market rates despite the impact of a changing economic climate and variations in demand

Slight decline in capital market yields over the year

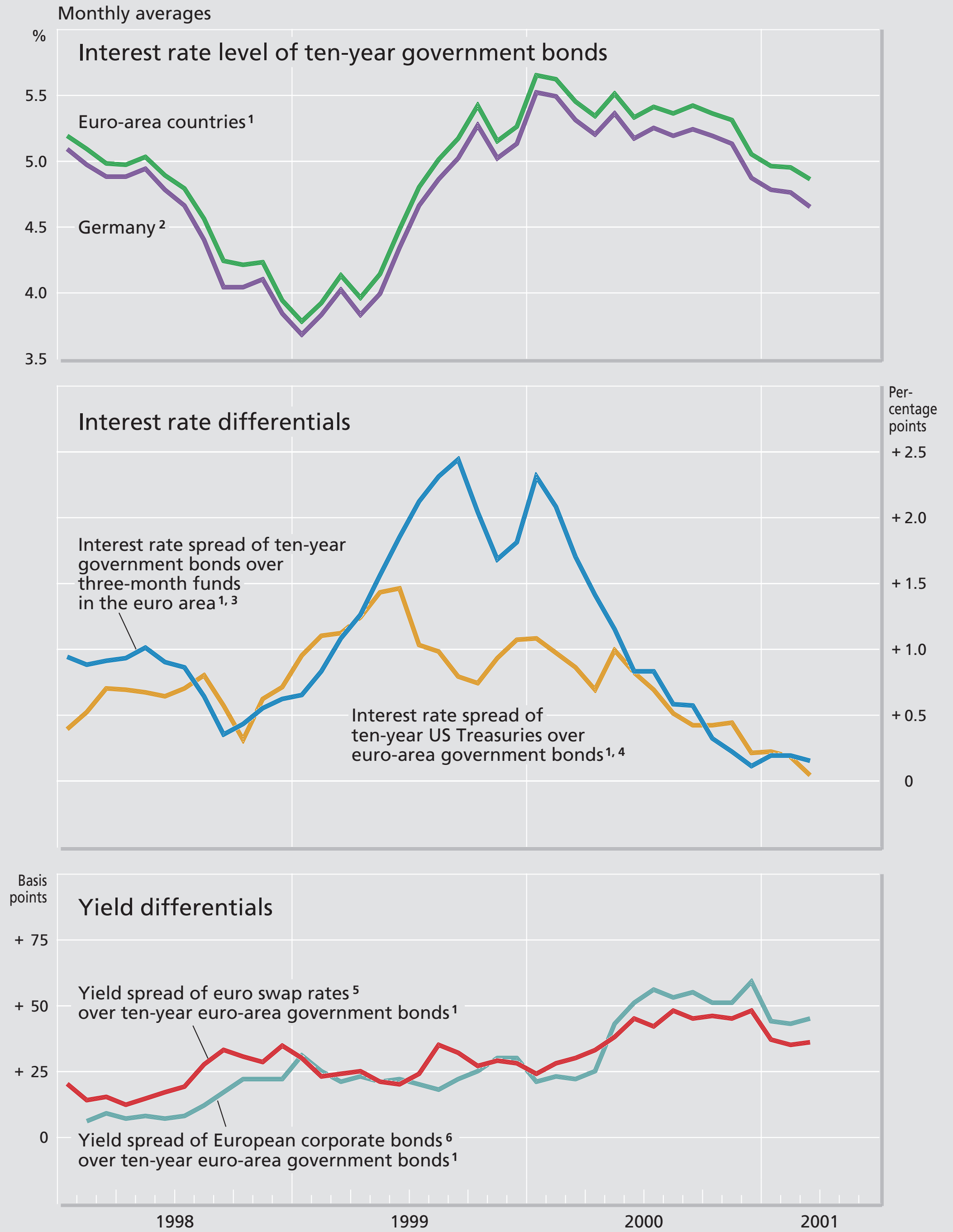
In the course of 2000 the capital market rates in the euro area dipped slightly after a strong upward movement in 1999. Between January and December the average yield of ten-year government bonds of euro-area countries declined by ½ percentage point to just over 5%. Following a slight temporary rise at the start of 2001, at the time of going to press the average yield was just under 5%. This means that the capital market rates in Europe are very low (see the chart on page 45), a situation fostered by the Eurosystem's policy of consistently focusing on the objective of price stability. By tightening the monetary policy reins, the Governing Council of the ECB curbed long-term inflation expectations, despite the fact that the outlook for the economy and growth in the euro area had clearly improved in the first half of the year. Rising oil prices and the associated price risks did not therefore carry through to capital market yields, which moved sideways in the first half of 2000. They eased downwards in the second half of the year, as a result of the corrective price adjustment on the equity markets and the economic slowdown at the end of the year. Accordingly, the yield curve flattened out appreciably in the course of 2000, with short-term interest rates rising and long-term interest rates falling. In the first quarter of 2001 the inverse yield curve in the one to two-year range and the increase in mid-term and long-term rates indicated that speculation about a cut in interest rates was felt to be significant in the short run only. Surveys show that the expected price increases are still relatively small. On this basis the real interest rate is just over 3¼% at present, compared with an average of around 4% in the 1990s. From this perspective, long-term lending rates remain favourable. The prospects of sustained growth in the euro area coupled with long-term price stability are likely to have helped to reduce the interest-rate uncertainty on the capital market. The implied volatility of the Bund future, which provides an indication of how market players expect prices on the futures market to fluctuate in the period immediately ahead, has almost halved since January 2000.

Decline in interest rate yield spread in the United States reflects economic influences and special effects

The interest rate advantage of the United States on the capital market, which amounted to just over 1 percentage point at the start of January 2000, was fluctuating and had disappeared by the time of going to press. However, owing to special developments on both the US and the European markets, the yield differential between ten-year US Treasury bonds and comparable bonds from euro-area countries is of only limited informative value. In the first quarter of

Interest rates in the euro-area bond market

Chart 7



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** US government bonds with residual maturities of nine to ten years. — **5** Euro swaps; up to the end of 1998 DM swaps. Source: Bloomberg. — **6** Yields of blue-chip corporate bonds; up to the end of 1998 French corporate bonds only. Source: Bloomberg.

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2000 the yield on government bonds outstanding in the United States contracted more markedly than that in the euro area, while the swap rates[1] in the United States and in the euro area remained virtually unchanged during the same period. This is an indication that the sharp decline in US yields in the first quarter of 2000 was mainly due to anticipated supply shortages on the market for government debt instruments. These expected shortages were attributable to the announcement of a bond repurchase programme connected with the upward-revised forecast for future budget surpluses. By contrast, in April 2000 the auction of mobile telephone licences in the United Kingdom led to greater expectations of additional government receipts in some euro-area countries. This led to a temporary decline in European yields and a widening of the interest rate differential vis-à-vis the United States. At the end of the year, signs of a slowdown in the US economy had a dampening effect on interest rate developments in the United States, in particular, resulting in the interest rate differential vis-à-vis the euro area becoming narrower again.

Widening of yield differentials in the euro area due to fears of supply shortages

The differential between the yields of ten-year government bonds of euro-area countries increased in the course of 2000. Yields of government bonds in Europe were again clearly being driven more forcefully by country-specific developments. Special factors, such as large-scale government receipts from the auction of mobile telephone licences, reinforced expectations of, say, government bonds possibly being in short supply (see also page 48). This can also be seen from a comparison of government bond yields and interest rates for ten-year swaps, which are not affected by these special factors. While the rates for long-term interest rate swaps developed quite steadily in the first three quarters of 2000, yields on government bonds in the euro area waned. Consequently, the differential between the two financial market instruments, the swap spread, rose over the same period from ¼ to ½ percentage point. It then remained at a high level up to the end of 2000, since when it has been going back down again.

Higher yield spread for bonds of issuers with lower credit ratings

During 2000 there was an increase in the yield spread for corporate bonds over government bonds, which are considered to be a secure investment. The increase was especially marked in the case of industrial bonds of issuers with lower credit ratings. At the time of going to press, the yield on bonds with a

1 In interest rate swaps, future interest rate payments are exchanged by the contracting parties, with fixed dividends being traded for variable rates linked to a money market rate (and vice versa).

relatively low rating[1] and a maturity of seven to ten years was almost 2 percentage points higher than the average of comparable European government bonds. Possible reasons for this are, first, the greater recourse to the market, especially by large telecommunications enterprises, which puts upward pressure on interest rates. Second, a greater risk awareness among investors is likely to have encouraged them to spread their investment more widely over varying levels of counterparty risk.

(b) Falling prices on the equity markets

Subdued European equity market

The boom on the European stock exchanges, which had lasted since the mid-1990s, came to an end in March 2000. A steady downward movement began in the second quarter. Measured by the Dow Jones Euro-Stoxx index, European share prices tumbled by nearly 30 % from their peak. The main cause was that expectations of large gains driven by the boom were adjusted downwards, in some cases by a considerable amount. In addition, a stronger focus on investment-specific risks is likely to have put prices under pressure. Developments on the European equity markets were largely in line with the international trend. In the United States, for instance, measured on the broad S&P 500 index, share prices fell by more than one-quarter from their peak in March 2000.

Divergent sectoral developments

Looking at exchange rate movements on the market as a whole conceals the diverging development of share prices in the different sectors. If European shares are divided into those issued by firms in the technology, media and telecommunications (TMT) sector and those from the remaining sectors, some contrasting price movements become apparent. TMT share prices were soaring until March 2000, continuing the pattern that started in 1999, but then deteriorated considerably. Since then prices of these shares have slumped by over 60 %. By contrast, at the start of 2001 non-TMT share prices went back up to the level attained in early 2000, but have since declined by more than 10 %. TMT share prices – listed mainly on the new markets, which depend heavily on expectations of gains to be made in the distant future – were also considerably more volatile than those of other shares.

1 Bond evaluations by rating agencies are aimed at estimating the credit risk, i. e. the ability to service the bond fully in future. The low rating referred to here corresponds to the last category up to which an industrial bond is still considered an investment grade bond and may therefore be purchased without restriction by investment funds.

Average price-earnings ratio approached

The occasionally dramatic slumps in share prices during 2000 followed on from the great heights attained in recent years, with the price-earnings ratio on the European equity market reaching a very high level. The dividend yield fell accordingly. The price increases were thus not so much a reflection of current yields as of high expectations of the future developments in prices and earnings. After last year's price losses, the average price-earnings ratio did, however, climb back to almost the average level of the past ten years.

3. The financial markets in Germany

(a) Stable financing terms on the German capital market

Federal bonds as a benchmark for the euro area

Federal bonds maintained their position as a benchmark in the long-term sector of the euro bond market. The key role played by Federal bonds derives not only from the high volume of individual issues, but also from the position of Bund futures as the most important hedging instrument against interest rate risks in the euro area. Unlike the long-term bonds of other issuers, price movements of Federal bonds can be fully hedged by derivatives. This is reflected in a high degree of liquidity in the secondary market, which is acknowledged by investors through their acceptance of lower interest rates. Despite the very small rating differentials, ten-year bonds of other euro-area countries are therefore currently quoted at an average of 31 basis points above Federal bonds with comparable residual maturities. Compared with the start of 2000, the interest bonus of Federal bonds went up by roughly one-third. In the summer the large proceeds from the auction of UMTS licences in Germany played an important role in this respect. A comparison of Federal bond yields with the interest rates for ten-year swaps – which were not affected by the special factor of the UMTS licences – shows that, following the unexpectedly high proceeds from the British sale, fears of Federal bonds being in short supply were already emerging before the German auction. Given the rising expectations of a slowdown in the economy, it was only at the end of the year that the yield differential between Federal bonds and interest rate swaps started to go back down again. At the time of going to press, it was, however, still well above the levels at the start of 2000.

Record issues on the German bond market

Issuing activity on the German bond market was again very buoyant in 2000. At a market value of € 740 billion, gross sales of German bonds[1] attained a new

1 The figures discussed here include non-bank bonds with an original maturity of up to one year and commercial paper. These were not taken into account in previous Annual Reports.

Sales and purchases of securities

Table 5

€ billion

Period	Sales					
	Bonds		Equities		Investment fund certificates	
	Total 1	of which Foreign bonds 2	Total 3	of which Foreign equities 2	Total	of which Investment funds open to the general public
1996	130.1	10.3	37.1	19.6	42.6	8.4
1997	171.2	42.3	60.7	49.4	74.5	16.1
1998	212.9	60.0	122.6	97.6	95.7	19.9
1999	295.5	96.2	149.0	113.0	111.1	37.7
2000	228.8	70.8	143.6	120.8	117.0	39.7
2000 1st qtr	76.1	29.3	55.8	50.7	40.7	16.3
2nd qtr	59.7	7.5	37.2	29.2	23.7	8.0
3rd qtr	59.1	20.7	50.6	45.1	23.1	7.7
4th qtr	33.9	13.3	0.0	– 4.2	29.6	7.7
	Purchases					
	Non-residents 2		Domestic non-banks 4		Domestic credit institutions (including Bundesbank) 5	
	Domestic bonds	Domestic equities	Bonds	Equities 2	Bonds	Equities
1996	62.2	8.5	5.1	22.2	62.9	6.5
1997	69.0	11.6	30.4	44.8	71.9	4.4
1998	85.1	51.8	17.3	60.4	110.5	10.4
1999	136.1	51.9	69.8	78.4	89.5	18.6
2000	72.5	– 20.8	64.8	141.1	91.4	23.3
2000 1st qtr	5.8	62.3	32.4	– 52.3	37.9	45.8
2nd qtr	40.7	42.9	– 3.1	22.3	22.2	– 28.1
3rd qtr	18.1	10.8	21.3	42.4	19.6	– 2.6
4th qtr	7.9	– 136.8	14.2	128.6	11.8	8.2

1 Net sales of domestic bonds at market values plus/minus changes in issuers' holdings of their own bonds. — **2** Transaction values. — **3** Sales of domestic equities at issue prices. — **4** Residual. — **5** Book values, statistically adjusted.

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high. This was, however, not sufficient to offset the simultaneous rise in redemptions. At € 158 billion, net sales after redemptions and changes in issuers' holdings of their own bonds were therefore around one-fifth below the figure for the previous year. Added to these, however, were sales of foreign bonds, which reaped € 71 billion in Germany in 2000. At € 229 billion, the total volume of resources raised was distinctly up on the previous year. Roughly one-half benefited the banks, which sold bonds in the amount of € 120 billion net. At the head of the list were other bank bonds, of which – at € 54 billion – rather more were sold than in 1999. There was a sharp decline, however, in sales of communal bonds *(Öffentliche Pfandbriefe),* which went down from € 72 billion in 1999 to € 31 billion (net). Debt securities of specialised credit institutions were placed to a similar amount. At € 6 billion, sales of mortgage bonds played only a minor role. General government reduced its new borrowing on the bond market by just over one-third to € 25 billion. The Federal Government issued € 31 billion worth net of its own bonds, mainly comprising Federal bonds with ten and thirty-year maturities. In contrast to the government and the banks, the business sector raised more funds by its own issues on the bond market than in the previous year; the stock of industrial bonds outstanding rose by € 13 billion.

Equity market consolidation

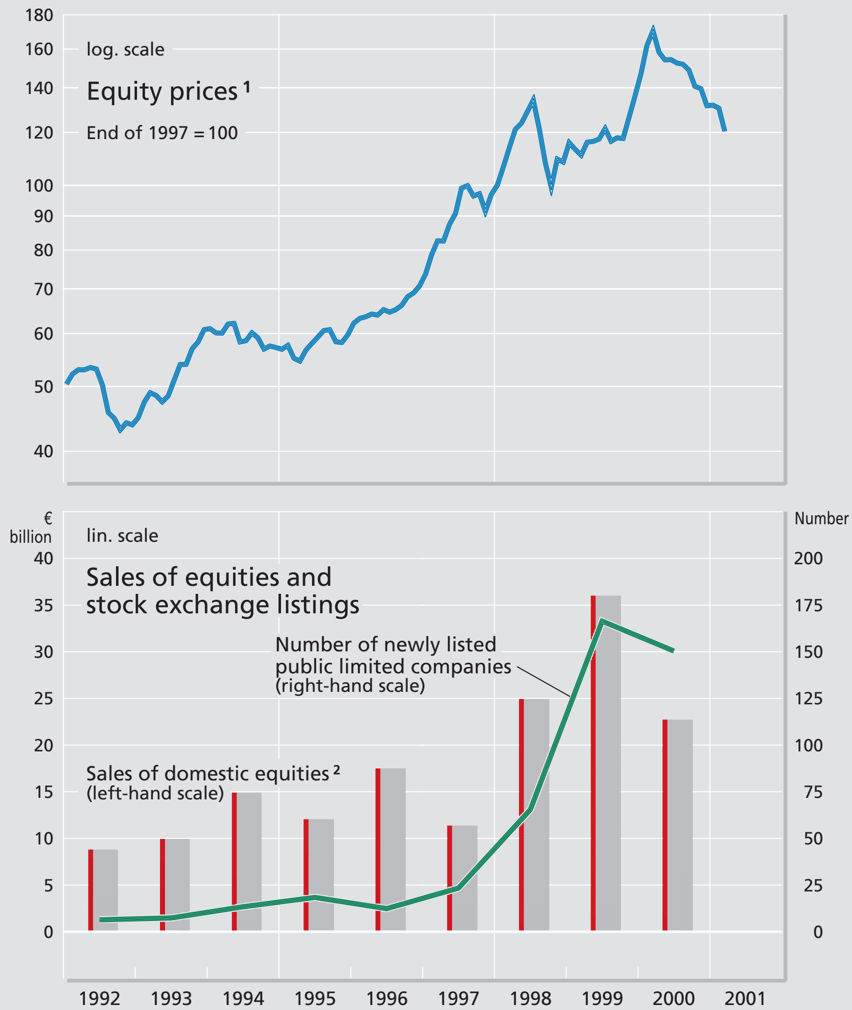
The upswing in prices on the German equity market which began in 1999 initially came to a halt at the start of 2000. At the same time, uncertainty grew about future price movements. The implied volatility of the DAX reflected in the VDAX was rising sharply up to March. Along with the sharp fall in prices on the leading US market for technology shares, a phase of consolidation began on the German market, too, in mid-March. Measured on the broad CDAX index, by April 2001 shares had fallen 37 % from their peak level. The price movements across the various sectors of the German equity market were uneven, however. Bonds in the technology, media and telecommunications (TMT) sectors were achieving high price gains up to March 2000 and then plummeted by 70 %, while the quotations for other equities initially continued to rise, attaining a new high in November 2000. The fall in prices was accompanied by a decline in issuing activity. Domestic enterprises issued shares to a market value of € 23 billion in 2000, compared with the record of € 36 billion in 1999. At 152, the number of IPOs remained high, but failed to match the peak figure of the previous year. There were even more new issues on the *Neuer Markt* (133) than in 1999. Most of the IPOs took place, however, in the first half of the year; towards the end of the year they tailed off in line with falling prices. At the start of 2001 issuing activity on the *Neuer Markt* came to a temporary standstill. The internationalisation of the German equity market, which began during the last few years, continued in 2000. At € 121 billion, net sales of foreign equities were higher in the year under review than in 1999 (€ 113 billion).

Large amounts of venture capital continue to be made available to young enterprises

In 2000 the rate of growth in the market for venture capital in Germany was again impressive. This dynamic development has to be seen in the context of the major potential that still exists for matching international standards in the capital financing of unlisted smaller and medium-sized growth enterprises. The price losses suffered in the second half of the year by young companies already listed on the stock market, especially in growth sectors such as the *Neuer Markt,* restricted the opportunities of using stock market flotations as a way of avoiding

Equity market

Chart 8



1 CDAX price index of the Deutsche Börse AG; monthly averages. — 2 Sales at market prices.

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recourse to venture capital, but did not jeopardise the underlying growth of the market for risk capital. Even though the stock market has been an important exit route for venture capital investment companies in recent years, in an environment in which shares prices are stagnating, other avenues such as open market sales might become more important again.

Resources raised by investment funds established in Germany again reached a high level in 2000 but, for the first time after several years of a rapid surge in growth, were somewhat down on the year. Overall, German investment com-

Foreign suppliers benefit from high volumes of assets in investment funds

panies received investment of just under € 85 billion, compared with € 97 billion in 1999. By contrast, foreign suppliers were able to benefit from a distinctly higher demand. They realised just under € 32 billion, compared with € 14 billion in the previous year. All in all, a record amount of € 117 billion net was used to acquire investment fund certificates.

Special funds: shares continue to gain in importance

The development of the special funds, which have been set up, in particular, for institutional clients, was the sole reason for the decline in resources raised by domestic investment companies. Sales of € 60 billion in 1999 fell to € 45 billion. At just under € 25 billion, mixed securities funds – the usual preference of this group of investors – maintained a prominent position. However, share-based funds commanded increasing attention, raising almost € 9 billion net, while financial resources raised by bond-based funds plummeted by almost one-half compared with the previous year to just under € 11 billion. Open-end real-estate funds sold only € 1½ billion worth of certificates. It was already apparent in the past that, like money market funds, they were of little significance for institutional investors.

Uncontested lead of share funds open to the general public

Domestic funds open to the general public were able to place € 40 billion worth of share certificates. Unlike the specialised funds, this was somewhat more than in the previous year (€ 38 billion). Irrespective of the losses on the equities markets, share-based funds clearly consolidated their leading position among private investors, selling certificates worth € 39 billion net – more than twice as many as in 1999. Inflows of funds peaked in the first quarter, while share prices were still rising. They then declined up to the end of the year, although they remained at quite a high level. Investors focused first on funds with an international or European orientation (€ 20 billion) and, second, on funds which specialise in advanced technology, biotechnology and the Internet sector (€ 16 billion). Especially in terms of cross-border portfolio investment and investment in securities with marked entrepreneurial risks, private investors obviously consider that investment funds present certain advantages. Apart from this, of the funds open to the general public, only mixed funds recorded an increase, realising € 6 billion, compared with just over € 3 billion in 1999. All other types of investment held little attraction for private investors. Bond-based funds and money market funds therefore had to buy back € 8 billion and € 2 billion worth of share certificates respectively, after each had realised € 3 billion in 1999. Last year just under € 3 billion net was also disbursed from open-end real-estate funds.

Short-term deposits of domestic non-banks at the subsidiaries and branches of German MFIs abroad

Chart 9

o From 1999 in euro.

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(b) Stock exchange consolidation and further advance of electronic trading systems

The stock markets – from cooperation to consolidation

In 2000 consolidation efforts in the German financial industry were again particularly marked by continuing Europeanisation. Attempts by the main European stock markets to agree on a joint trading system or a joint securities settlement procedure met with no success. The Paris, Amsterdam and Brussels stock markets subsequently merged in spring 2000 to form Euronext. The planned merger of the Deutsche Börse and the London Stock Exchange (LSE) failed, however, after the Swedish stock market company OM also made what ultimately turned out to be an equally unsuccessful takeover bid for the LSE. In February 2001 the Deutsche Börse was itself floated on the stock market. There was a further increase in the number of private electronic trading systems, although, at least with regard to shares, no standard has yet become established that will make greater inroads into stock market sales. The situation with regard to bonds was different. Since spring 2000 it has been possible for Jumbo mortgage bonds to be traded alongside government bonds on the electronic system EuroCredit MTS. Moreover, in autumn 2000 a further platform was set up with Eurex bonds which permits electronic trading of Federal bonds and their derivatives.

Little risk of market liquidity being fragmented

The rapid increase in the number of electronic trading systems harbours the risk of the market liquidity becoming fragmented. It is, however, to be expected that only a few systems will be able to become permanently established on the market since a trading platform is only attractive to its customers if a sufficient number of participants are trading on it. The present situation with a large number of different systems is therefore likely to continue for a transitional period only. In addition, there are incentives for linking specific trading platforms so as to ensure that the users obtain better rates. Finally, important intermediaries are present on different systems and can use arbitrage to ensure that the rates are harmonised. Admittedly, most electronic trading systems have yet to be put to the test in situations of high volatility or scarce liquidity.

(c) Little dynamism in the investment and lending business of German MFIs with domestic customers

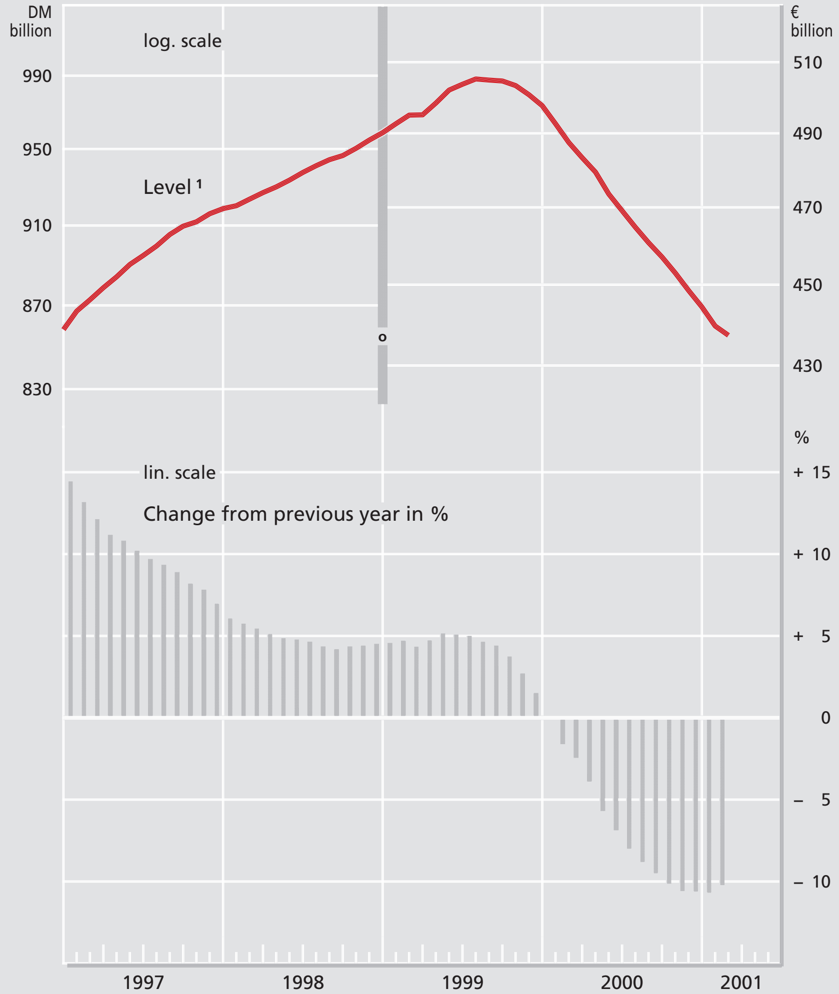
Moderate rise in overnight deposits

In 1999 there was only a comparatively moderate increase in German MFIs' overnight deposit business with domestic investors. Overnight deposits went up by € 22½ billion, or 5½%, compared with € 34 ½ billion, or 9%, in 1999. In addition to the higher opportunity costs of liquidity holdings resulting from the rise in short-term interest rates, normalisation tendencies associated with the development of euro market deposits are also likely to have played a role here. While the expansion of overnight deposits in the first year of European monetary union was fostered by a large-scale repatriation of funds previously invested on the euro market, in the year under review short-term funds again flowed out to foreign financial centres (especially Luxembourg and London). The auction of the German UMTS licences also made a temporary contribution to this. In the run-up to the auction, domestic enterprises created deposits in the euro market, which, after the licences from the Federal Office for Post and Telecommunications had been paid for, were maintained as deposits with subsidiaries of Ger-

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

Chart 10

Seasonally adjusted



1 End of month; statistical changes eliminated. — **o** From 1999 in euro.

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man banks in Luxembourg, to be used in January 2001 in conjunction with deposits in the German MFI sector for the redemption of equalisation claims.

Strong growth of short-term time deposits ...

The interest rate policy environment in 2000 fostered the increase in deposits with an agreed maturity of up to two years. Rising by 11% in the course of 2000, they grew almost twice as strongly as in 1999 (6%). Shifts from both sight deposits and savings deposits with an agreed notice of three months are likely to have contributed to this growth. In the year under review the latter were run down massively (by € 53 ½ billion, or 10½%). This also affected the higher-yielding special savings facilities, which had been augmented appreciably

... and marked run-down of short-term savings deposits

at times in previous years. Obviously, the recent increase in interest rates prompted numerous investors to up earnings from their financial assets by means of non-bank investment; in addition to shares and investment fund certificates of domestic issuers, mutual fund shares in foreign investment funds were also in demand.

Longer-term bank deposits increased

The increase in deposits redeemable at notice of over three months in 2000 (€ 13 billion) is likely to have been stimulated by the decline in short-term savings deposits. Some bank groups obviously encouraged such reallocation of savings deposits in order to prevent an erosion of their savings portfolio. Deposits with an agreed maturity of more than two years were also augmented in the year under review, even if, at € 11 billion, they did not increase as much as one year previously (€ 23 ½ billion). In net terms, only domestic insurance companies formed long-term time deposits, while employed persons again reduced their portfolios.

Moderate lending to the private sector

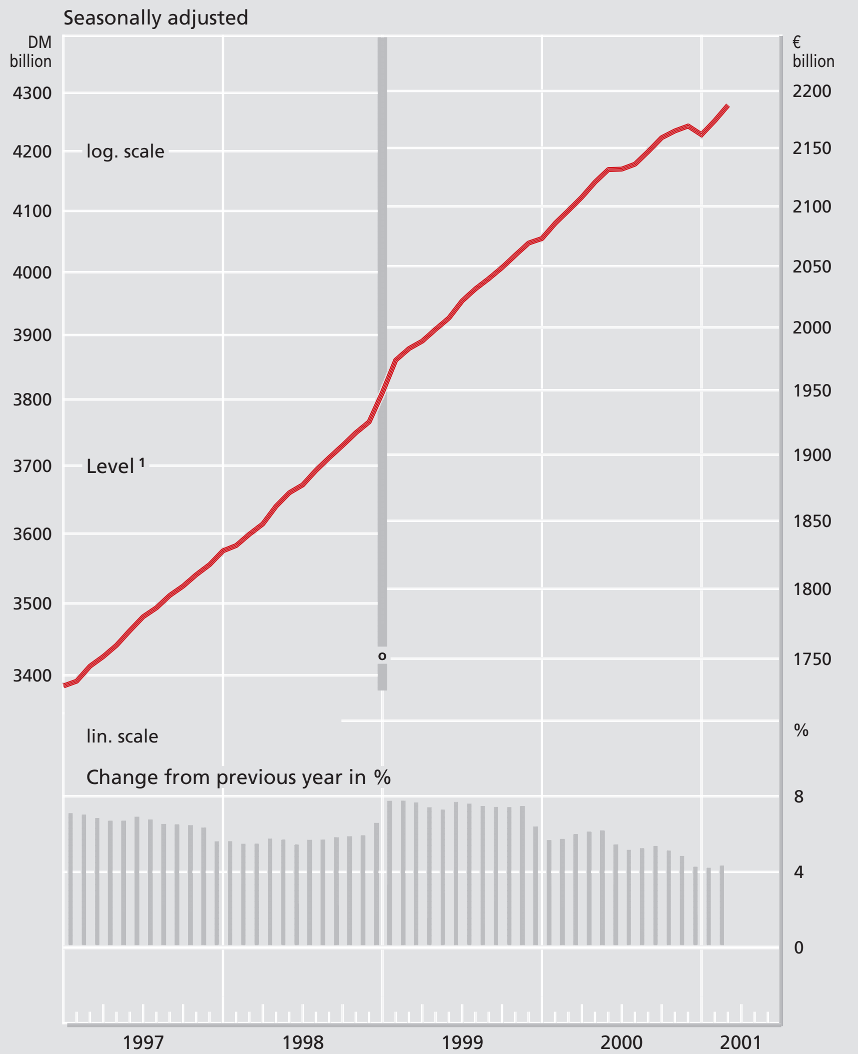
Lending by German MFIs to the domestic private sector was very restrained in 2000. At € 116 ½ billion, or 5 %, it expanded at a notably slower pace than in the previous year (€ 156 ½ billion, or 7 %). However, in 2000 the business sector had greater recourse to its foreign financing companies for the purpose of raising funds. The slowdown in domestic borrowing mainly affected loans (€ 89 ½ billion, as opposed to € 126 billion in 1999), but had a lesser impact on lending against securities (€ 27 ½ billion, as opposed to € 30 ½ billion). Especially in the fourth quarter, borrowing by domestic enterprises and private persons tended to be restrained. Besides a lack of tax incentives to take up credit similar to those that had existed in previous years, individual transactions in December were a contributory factor. Given the strong economic upturn, in 2000 the private sector demand for loans was sustained predominantly by enterprises, especially by those in the service and manufacturing sectors. By contrast, loans for home-building, which normally make up the most important borrowing segment in the private sector, were cut back sharply in view of the ongoing unfavourable situation in housing construction. There was also a marked slowdown in the growth of consumer credit owing to households' greater reluctance to purchase consumer durables and new cars.

Decline in lending to the public sector

Lending by domestic MFIs to the German public sector decreased by € 11 ½ billion in 2000. While loans shrank by € 7 billion, securitised lending fell by € 4 ½ billion. The policy of budgetary consolidation had led to public sector borrowing from the domestic banking system growing at a persistently slower pace since

Loans to enterprises and individuals in Germany

Chart 11



1 End of month; statistical changes eliminated. — o From 1999 in euro.

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the mid-1990s before now being reduced, not least owing to the proceeds generated by the UMTS auction. At the same time, government deposits in the German banking system, at € 21 ½ billion, went up sharply.

(d) Developments in the banking sector

Lending operations by group of banks

In 2000 commercial banks and the regional institutions of the credit cooperatives increased their market shares of lending operations with domestic non-banks. Their loans went up by nearly 6 % and over 5 % respectively – which was an appreciably sharper rise than in the banking industry as a whole (3 ½ %).

Within the group of commercial banks, lending operations were buoyant, especially in the case of the big banks (up by just over 6 %). Lending operations by regional and other commercial banks as well as mortgage banks corresponded to the banking industry average. Land banks and savings banks only just maintained their market share of 3 % each. Lending by credit cooperatives and by banks with special functions grew comparatively weakly (1½ % and ½ % respectively).

Earnings trend in 2000

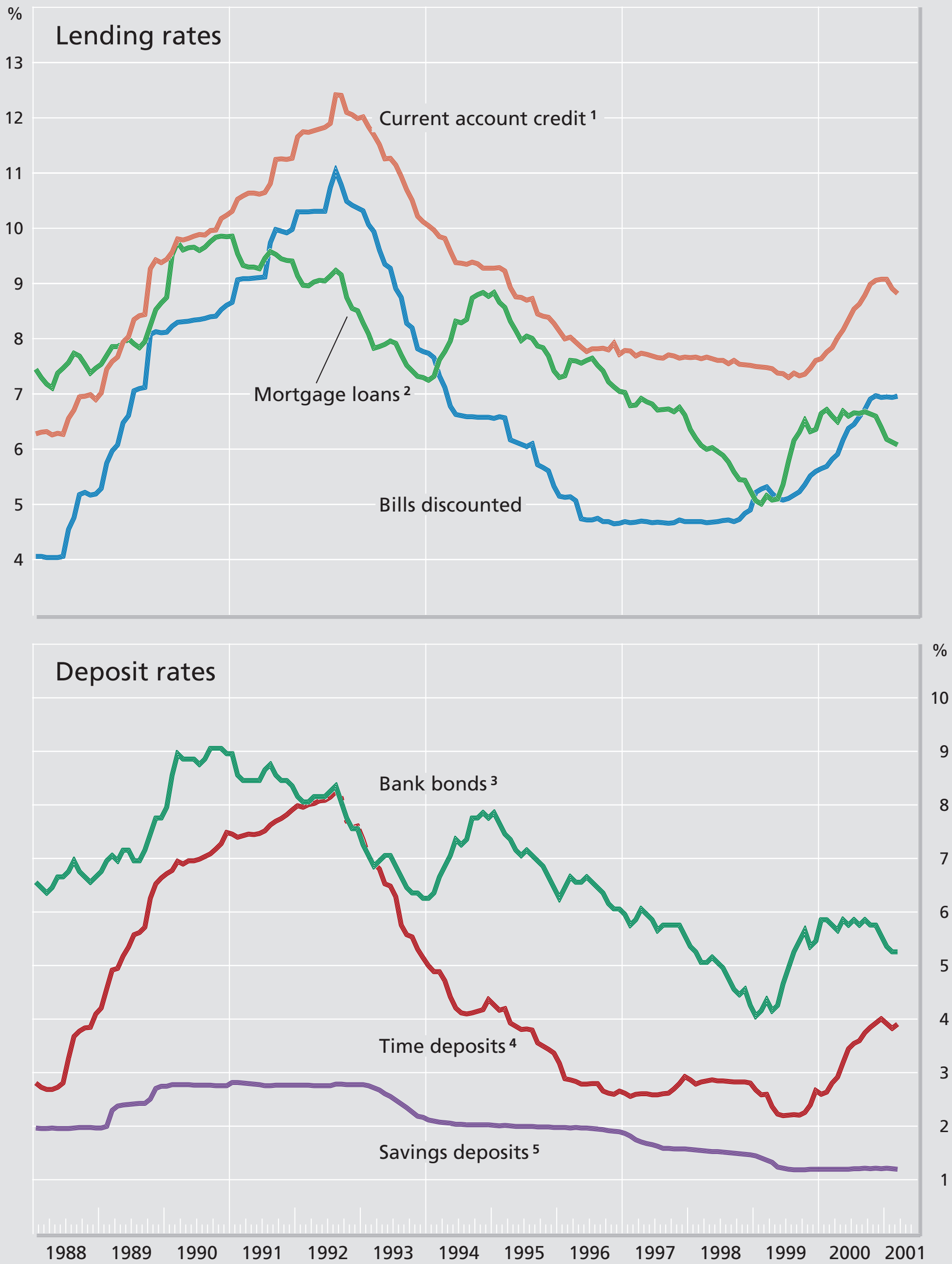
According to information available at present, the German banking industry as a whole can expect a result for financial year 2000 which is similar to that for 1999. In terms of the balance sheet total, the operating result and the profit for the year are likely, however, to show a further decline. The moderate growth in lending, the ongoing shifts from savings deposits to securitised forms of investment and the flat yield curve exerted further pressure on interest rate differentials. Nonetheless, the decline which has been observable for some years is likely to have slowed in pace. Given the turbulent developments on the financial markets, it is difficult to assess the result of own-account trading. Commission profit, which is derived to a considerable extent from securities trading on behalf of customers, was evidently not fundamentally affected by the slump in prices on the equity market. Net charges from the valuation of assets are likely to have demonstrated fairly moderate growth, as the favourable economic climate tended to lessen the effect of loan losses in the corporate sector, no adjustments had to be made for country-specific loans and rising prices at the end of the year meant that it was possible to limit write-downs of fixed-interest securities. In 2000 the banks gained considerable proceeds from the sale of holdings. In view of the improved tax rules relating to sales of portions of financial assets, additional gains are also to be expected here in the coming years. Administrative costs remained relatively high owing to investment in information and communications technology, the expansion of electronic banking services and marketing channels, and additional personnel costs for investment banking specialists.

Balance sheet structure and consolidation

Owing to the moderate increase in lending to domestic non-banks, their share in the balance sheet total – calculated as an average of all banks – fell by 1 percentage point to just under 49 %. In the case of savings banks and credit cooperatives, the share of the balance sheet total represented by loans to domestic non-banks was virtually unchanged at around 67 % each. As an average of all banks, loans to foreign customers had a share of just over 7 ½ %; the contribution of interbank loans remained stable at around 35 %. As a result of the continuing propensity of investors to opt for securitised forms of saving outside the

Selected bank interest rates *

Chart 12



* Since January 1991 including the rates applying in the new Länder. — **1** Of DM 1 million and more but less than DM 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 DM 100,000 and more but less than DM 1 million. — **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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banking system, disintermediation was somewhat stronger on the liabilities side. The share of total borrowing represented by non-bank deposits fell back from 38 % to less than 37 %. The decline in the share of savings deposits and bank savings bonds was even more marked (from 12 ½ % to 11%). This was offset by somewhat higher borrowing at other credit institutions (around 29 %, compared with 28 % in 1999). Within one year the number of credit institutions fell from around 3,000 to 2,740, almost solely as a result of mergers among the credit cooperatives. In the group of commercial banks, however, there was no further consolidation.

III. Economic trends and economic policy in Germany

1. Strong growth but little room for income distribution

Positive overall balance sheet despite higher risks

Germany's overall balance sheet for the year 2000 was predominantly positive for the first time in quite a long period. The main plus point was the relatively high rate of economic growth. With a 3 % growth rate, real gross domestic product increased not only twice as fast as on an average of the nineties; it also caught up with the other countries in the euro area again. Despite a renewed setback in the construction industry, there was a significant improvement in the utilisation of overall production capacity. This, together with sustained investment momentum in the corporate sector and domestic price and cost discipline, substantially boosted further progress on the labour market.

Last year's macroeconomic performance in both real and nominal terms was strongly influenced by external factors. While international economic developments stimulated exports, rising oil prices and, later in the year, the weakening euro significantly curbed domestic demand. The subsequent visible darkening of sentiment was primarily a reflection of the uncertainty about how quickly the economic downturn in the United States, which worsened as the year drew to a close, could be overcome.

Strong external stimuli

As in previous cyclical upturns, it was foreign demand that provided much of the stimulus to growth in the year 2000. Export orders received by German industry rose by no less than 17 ½ % in terms of constant prices. Demand was heaviest for both capital and input goods. The surge in export orders was mainly

Key economic variables in Germany

Table 6

Change from previous year in %

Item	1997	1998	1999	2000
Growth (real) [1]				
Private consumption	+ 0.7	+ 2.0	+ 2.6	+ 1.6
Government consumption	– 0.9	+ 0.5	– 0.1	+ 1.4
Expenditure on machinery and equipment	+ 3.7	+ 9.2	+ 6.7	+ 9.0
Buildings	– 1.5	– 1.0	+ 0.5	– 2.5
Other investment	+ 5.9	+ 10.9	+ 12.4	+ 9.7
Stockbuilding				
Change (in DM billion)	+ 8.0	+ 15.3	+ 6.0	+ 9.3
Domestic demand	+ 0.6	+ 2.4	+ 2.4	+ 2.0
External balance of goods and services [2]				
Change (in DM billion)	+ 29.6	– 9.9	– 28.1	+ 37.4
Exports	+ 11.3	+ 7.0	+ 5.1	+ 13.2
Imports	+ 8.4	+ 8.6	+ 8.1	+ 10.2
Gross domestic product	+ 1.4	+ 2.1	+ 1.6	+ 3.0
Contribution to GDP growth in percentage points				
Domestic demand (excluding stocks)	+ 0.3	+ 1.9	+ 2.2	+ 1.7
Stockbuilding	+ 0.2	+ 0.4	+ 0.2	+ 0.2
External balance of goods and services	+ 0.8	– 0.3	– 0.8	+ 1.0
Employment				
Employed [3]	– 0.2	+ 0.9	+ 1.1	+ 1.6
Average working time per employed person	– 0.3	+ 0.2	– 0.5	– 1.5
Total number of hours worked	– 0.5	+ 1.2	+ 0.6	+ 0.0
Unemployed (in thousands) [4]	4,385	4,279	4,099	3,889
Western Germany	3,021	2,904	2,756	2,529
Eastern Germany	1,363	1,375	1,344	1,359
do. as % of the civilian labour force	11.4	11.1	10.5	9.6
Western Germany	9.8	9.4	8.8	7.8
Eastern Germany	18.1	18.2	17.6	17.4
Prices				
Consumer price index	+ 1.9	+ 1.0	+ 0.6	+ 1.9
Producer prices of industrial products [5]	+ 1.1	– 0.4	– 1.0	+ 3.4
Overall construction price level	– 0.8	– 0.2	– 0.3	+ 0.7
Import prices	+ 3.6	– 3.2	– 0.5	+ 11.2
Export prices	+ 1.5	– 0.1	– 0.5	+ 3.5
Terms of trade	– 2.0	+ 3.2	– 0.0	– 6.9
GDP deflator	+ 0.8	+ 1.1	+ 0.9	– 0.4
Productivity and labour costs				
GDP per hour worked by employed persons [1]	+ 1.9	+ 0.9	+ 0.9	+ 3.0
Compensation per hour worked by employees [3]	+ 1.4	+ 0.8	+ 1.6	+ 3.0
Labour costs per unit of value added in real terms in the economy as a whole [6]	– 0.5	– 0.0	+ 0.7	+ 0.1

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** Work-place 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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the result of vigorous growth in major customer countries. The substantial improvement in the price competitiveness of German exporters also played an important role. Their success was due principally to exchange rate movements as well as to the domestic cost discipline which can be seen in the decline of just over 3 % in unit labour costs in the producing sector (excluding construction) following moderate wage agreements and rationalisation measures. Although the export motor was running at full throttle, export deliveries could not quite keep pace with the very dramatic rise in demand; the capital goods sector probably had a particularly large volume of orders on hand at the end of the year. Exports of goods rose by almost 14 % in real terms in 2000 and by just over 13 % if services are included. That was more than the rate of expansion in world trade, which meant that, globally, there was an increase in market shares.

In view of the increasing division of labour world-wide and the large ratio of imported input goods absorbed by the manufacturing sector, it is not surprising that real imports also grew sharply (+ 10 ¼ %) in 2000 although the depreciation of the euro made the use of many foreign inputs more expensive and posed difficulties when imported finished goods were sold to final customers. Overall, the exchange of goods with non-residents resulted, in purely arithmetical terms, in a 1 percentage point increase in real domestic product whereas in 1999 external factors had reduced the increase in GDP by ¾ percentage point.

The focus of external stimuli was manufacturing where, in an effort to meet the heavy demand, output rose by an annual average of 7 ½ %. This was much more than in 1999 when only a slight increase in output had been recorded. Sales indicate that the increase in export output was probably well into double figures. The traditionally highly competitive manufacturers of capital goods, especially of communications equipment, office machinery and data processing appliances, were in the lead. Car manufacturers also delivered a large proportion of their – again expanded – output to foreign customers. By contrast, domestic impetus to industrial production was limited.

Weak domestic demand

There was again little stimulus from domestic demand in 2000. The unusually sharp deterioration in the real exchange ratio vis-à-vis non-residents was the main reason why the widely expected broadening and strengthening of the basis for growth did not materialise. The surge in oil prices, the impact of which was accentuated by the depreciation of the euro, had an extremely adverse effect on the terms of trade, resulting in a transfer of DM 55 billion – calculated at constant prices – to non-residents. Of the 3.0 % increase in overall economic output only 1.1 % of the growth in real income ultimately remained to be distributed among those participating in the domestic economy. This means that the income of the domestic sectors actually grew even less strongly than in the previous year, a development that was not without adverse repercussions for domestic demand even if the desire to save had also fallen somewhat. On an annual average, domestic demand rose by 2 % in 2000 compared with just under 2 ½ % in 1999.

Level of consumption checked by oil price rise

Consumer spending, which had shown a slight rise at the beginning of the period under review, suffered particularly badly from the oil-price-related increase in prices, which also affected other sources of energy. Overall, expenditure on consumption by households rose by no more than just over 1½ % after the elimination of price increases; in 1999 this expenditure had risen by approximately 2 ½ %. Particularly large sales losses were sustained by the motor trade, not least as a result of the higher oil prices. However, large sections of the traditional retail trade (textiles, clothing and leather goods) noticed the reluctance to buy. Greater consumer interest was confined to telecommunications and entertainment appliances. Consumers also continued to favour foreign trips highly and spent almost 8 ½ % more on these.

As far as incomes are concerned, conditions were not actually unfavourable for supporting increased consumer demand from households. With a rise of more than 3 ½ %, for example, net wages and salaries were just over 1 percentage point higher than in 1999. Increased employment was not the only positive outcome; there was also income tax relief and a slight reduction in the contribution rates for social security. Households also received a further increase in benefits from public cash offices and private security systems. The rise in child benefit at the beginning of 2000 is a notable example. If other income, including income from self-employment and investments, is also taken into account, nominal disposable income[1] rose by almost 3 %. Even so, the more rapid growth in income remained only slightly ahead of the inflation-related increase in consumer spending. The higher energy prices alone accounted for 1 % of current income. In 2000 the funds left over for households' asset formation were only slightly up on the previous year; in terms of disposable income the saving ratio fell to a new record low of 9 ¾ %.

1 Here and in what follows, including the adjustment for the change in net equity of households in pension fund reserves.

Corporate investment propensity high

Trade and industry invested heavily last year, mainly in modernisation and the restructuring of the capital stock. Enterprises invested approximately 9 % more – at constant prices – in machinery and equipment and in other investment than in 1999. However, this momentum, which had been observed in earlier cyclical upswings, too, was in contrast to the restricted investment in construction. The decisive stimulus for the propensity to invest probably came from enterprises' export business, which was inspiring sales and profits expectations. It is true that, owing to the abrupt rise in energy prices, the exchange-rate-related rise in the prices of imported input goods and increasing depreciation costs, not to mention the high degree of competitiveness in many export markets, corporate profit margins were still under pressure. Even so, in contrast to the situation in 1999, brisk turnover and the stable unit labour costs meant that the corporate profits of (non-financial) corporations rose by just over 8 % as a whole in 2000 although there were large differences in individual cases. The higher output-to-capital ratio also had a positive effect on current yield relationships. Despite the price corrections on the share markets, the conditions for external funding remained favourable on the whole. New investment projects were needed, not least because of the increasing use of spare capacity. According to surveys by the ifo institute, capacity utilisation in manufacturing on an annual average in 2000 reached its highest level since the beginning of the nineties. In some cases investment could also be brought forward to avoid the announced deterioration in fiscal depreciation regulations and at the same time to reduce the profits which were being made in 2000 and which were subject to the higher tax rates applying before the tax reform.

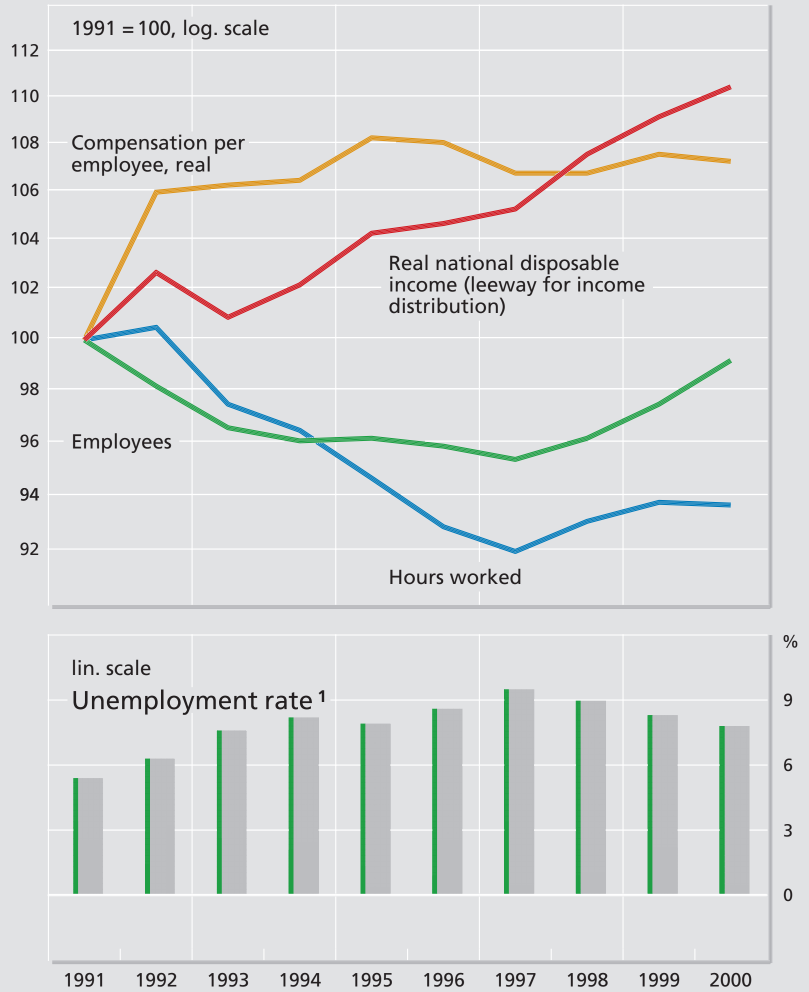
Renewed slump in housing sector investment

Negative factors predominated in the investment in housing in 2000; calculated at 1995 prices, investment in this sector was just under 3 % down on the previous year's level. In view of the large stock of unoccupied dwellings, the dwindling population and the falling number of households, the construction of new dwellings in eastern Germany declined further. However, in the light of the generally good provision of residential accommodation in western Germany, too, the restricted incentives to build owner-occupied and publicly assisted dwellings and the reform of the Rent Act evidently did not fail to have an impact on the calculations of investors there either. Despite virtually stable building costs and comparatively low mortgage rates, the number of dwellings completed declined again last year.

Overall, the pay settlements agreed in the 2000 wage round were both employment and stability-oriented. Thus, after the significantly more generous pay

Leeway for income distribution, wages and salaries and employment *

Chart 13



* Work-place concept in each case. — 1 ILO definition.

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agreements in 1999, wage negotiators returned to the principle of moderate wage settlements that they had been following for several years. The fact that management and labour were endeavouring to implement in concrete agreements the declaration of the alliance for jobs, training and competitiveness of January 9, 2000 to pursue a longer-term wage policy that would boost employment may have played a not insignificant role in this. This is also clearly reflected in the longer duration of last year's pay settlements, which provided enterprises with more planning security. Since it was generally expected at the time the pay agreements were concluded that inflation rates would fall during the rest of the year, it was probably easier for the parties concerned to approve the wage and salary compromises. In the event, however, there was a persistently longer acceleration of the inflation rate owing, above all, to higher crude oil prices. Nevertheless, the resultant redistribution effect in favour of non-residents was accepted. The wage policy errors following the oil price shocks in the seventies have therefore not been repeated, and that in itself has stabilised the present economic trend during a difficult phase. The lower burden of levies on wages and salaries probably also underpinned the wage policy.

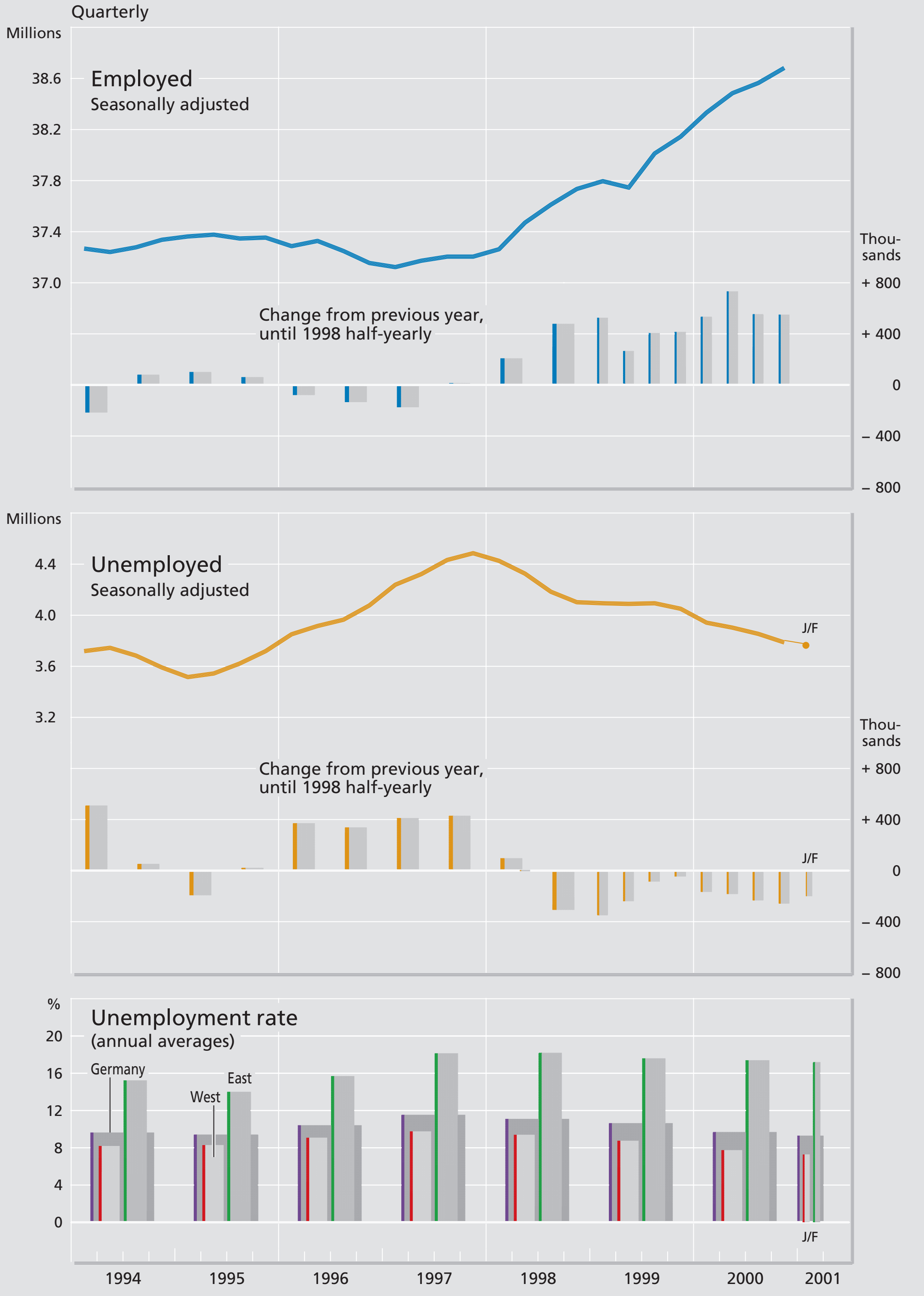
The pay settlement in the west German chemical industry pointed the way for the 2000 wage round. Management and labour agreed that wages and salaries should increase in two stages, rising by 2.2 % in mid-2000 and by a further 2.0 % in mid-2001, and that the agreement should last for 21 months. In addition, a flexibility clause was introduced, whose purpose is to ensure employment and improve competitiveness. Longer-term wage agreements lasting 24 months were also concluded in the metal-working and electrical engineering industry, the printing industry and the construction industry. The wage agreement for the civil service is actually for a 31-month period ending on October 31, 2002. The agreement provided for a lump sum of DM 400 for the period from April to July 2000 and wage and salary increases of 2.0 % on August 1, 2000 and 2.4 % on September 1, 2001; it was also agreed to increase the pay of public employees in eastern Germany in three stages from 86.5 % to 90 % of the corresponding west German pay rates by the beginning of 2002.

Stable unit labour costs

In 2000 the aggregate monthly negotiated wage and salary level rose by just under 2 % on an annual average. At 1½ %, the increase in actual earnings, that is to say, the increase in the wage or salary actually paid per employee, remained about ½ percentage point below the rise in negotiated earnings. Contrary to the case in 1999, however, the negative wage drift that this represents is not so much the result of further efforts by enterprises to cut costs. It is more likely to be due primarily to the sharp increase in low-paid part-time workers, which, in purely mathematical terms, meant a reduction in aggregate average earnings. As the contribution rates to the social security funds had been reduced slightly, the increase in labour costs per employee, which comprise not only gross wages and salaries but also the employers' contributions to the social security funds, was a moderate 1¼ %. As there was a simultaneous increase of just under 1½ % in the productivity of each employee, unit labour costs remained unchanged throughout the economy whereas in 1999 they had risen by just over ½ %. Unit labour costs last year were therefore again below the level in 1995. The fact that a moderate wage policy does not automatically mean a shift in the

Labour market

Chart 14



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functional income distribution to the detriment of labour as a factor of production is clear from labour's share of national income, which rose by ¼ percentage point to 72 % last year.

Improvement on labour market

In line with the general economic trend and the positive wage policy objectives, the situation on the labour market again improved discernibly in 2000, with the growth in employment more noticeable than the decline in unemployment. The number of employed persons rose to 38.5 million on an annual average, which represented an increase of 1.6 %, or 590,000 persons, from the previous year. As in previous years, low-paid workers or other part-time employees accounted for a large number of these. The average annual number of hours worked per employee therefore fell by 1½ %. Consequently, the total number of hours worked was largely unchanged.

Employment contracts changing

Even if precise data on employees' working conditions are not available, there are still a number of indicators which suggest that standard employment contracts are becoming less common and that more flexible forms of employment are increasingly becoming the norm. The number of persons in low-paid jobs subject to the DM 630 regulation has grown particularly fast recently. There are probably more than four million employees with such employment contracts at present.[1] That would be just over 10 % of the total number employed. Employment contracts for a limited period, temporary employment and flexible regulations on working hours are also playing a greater role. Since the mid-nineties, for example, the number of employees engaged through temporary employment agencies has almost doubled. Many of the people employed by these agencies had previously been out of work for a lengthy period and were unable to find their way back into the primary labour market without recourse to employment agencies. First-time job seekers are often given an employment contract of limited duration initially. Moreover, in many enterprises working time accounts have been introduced over the past few years to adjust the hours worked by individual employees more accurately to the seasonally and cyclically changing demand. The overall effect of this increasing flexibility will probably improve productivity and make the German labour market more resistant to crises.

The labour force, which is statistically recorded as the sum of employed and unemployed persons, increased by approximately 1 % in 2000 and therefore more sharply than in any year since German reunification. Given the change in the

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1 There are also full-time and part-time employees who have a DM 630 job as a second job.

Supply and demand on the labour market

Table 7

Item	1996	1997	1998	1999	2000
	in thousands				
Resident population					
Total	81,896	82,053	82,029	82,087	82,127
Between 15 and 64 years of age [1]	55,895	55,998	55,980	55,943	55,875
Labour force	40,700	41,019	41,166	41,307	41,711
Employed persons [2]	37,210	37,131	37,479	37,879	38,466
Unemployed persons [3]	3,490	3,888	3,687	3,428	3,245
	Change from the previous year in thousands				
Resident population					
Total	235	157	– 23	58	40
Between 15 and 64 years of age	132	103	– 18	– 37	– 68
Labour force [1]	169	319	147	141	404
Employed persons [2]	– 120	– 79	348	400	587
Unemployed persons [3]	289	398	– 201	– 259	– 183
Memo item	in %				
Employment rate [4]	72.8	73.3	73.5	73.8	74.7
Unemployment rate [5]	8.6	9.5	9.0	8.3	7.8

Source: Federal Statistical Office. — **1** Partly estimated by the Bundesbank. — **2** Residents. — **3** As defined by the national accounts. — **4** Labour force as a percentage of the population between 15 and 64 years of age. — **5** Unemployed persons as a percentage of the labour force.

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Labour force between demographical relief and growing participation

resident population of working age, a reduction would actually have been more likely. However, this expected reduction was counteracted mainly by the cyclical inflow of people from the hidden manpower reserve that encompasses the latent labour force and by the growing participation rate of women . The potential labour force – the registered labour force plus the hidden reserve – grew by just over ¼ %, according to estimates by the Institut für Arbeitsmarkt- und Berufsforschung (Institute for Employment Research).

Vigorous pursuit of active labour market policy

The active labour market policy continued to be pursued with vigour in 2000. With the regionalisation of promotional measures and the transfer of responsibility to the individual labour exchanges, however, significant shifts in the instrumental mix occurred. For example, the traditional job creation measures, whose socio-political motivation is often stronger than the success with which they channel the unemployed into the primary labour market, were reduced considerably. Almost the same number of persons took part in training schemes as in the previous year. By contrast, there was an increase in the number of unemployed whose entry into employment was promoted by means of grants.

Progress in reducing unemployment

The number of unemployed (as defined in the national accounts) declined by 180,000 to 3.25 million on an annual average in 2000. This means that 7.8 % of the labour force were out of work compared with 8.3 % a year before and 9.5 % at the last peak in 1997. Most of the decline is attributable to the improved economic situation. The demographic trend probably also contributed towards the decline in the number of unemployed. It is still not possible to say definitively whether or not this heralds a permanent decline in structural unemployment which has been gradually building up since the beginning of the seventies. At all events, unemployment in eastern Germany is becoming further entrenched, and the share of the labour force without work has remained twice as high as in the west. In western Germany, on the other hand, the number of long-term unemployed has fallen significantly, and, in contrast to the case in previous cyclical upswings, the reduction in unemployment has not been accompanied by a sharper rise in wages so far. Moreover, working hours have become more flexible in some cases, and the tax wedge affecting labour as a factor of production is no longer so large.

External factors determine prices

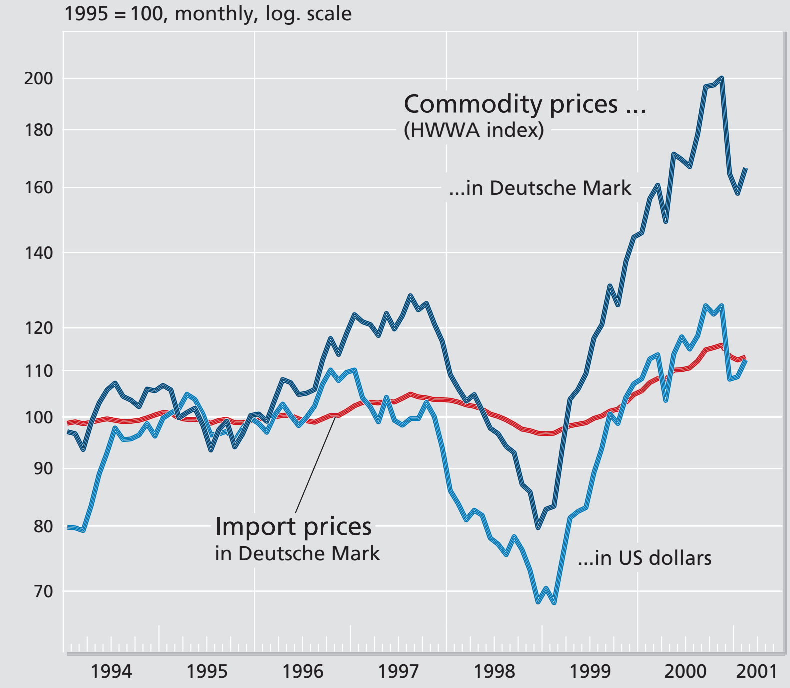
Domestic price trends in 2000 were largely determined by the international oil and foreign exchange markets. For example, the price of crude oil – measured in terms of the Brent spot market quotation in dollars – rose by almost 60 % on an annual average compared with the previous year. The peak was reached in September when the price per barrel climbed to more than US $ 33. The annual average quotation in 1998 had been little more than US $ 13. A further factor was the weakness of the euro, which in 2000 depreciated by more than 13 % against the US currency. It was not until late in the year that the exchange rate recovered, and oil became much cheaper again. The external stimuli on prices subsequently abated discernibly for a time. With the renewed downturn in the euro, however, price risks have recently increased again somewhat. Even though the rise in the cost of raw materials that prevailed during much of last year affected all stages of the inflationary process, it is remarkable in the light of earlier oil price shocks that the increase in prices did not lead to distribution disputes and the resultant second-round effects on wages and prices.

Sharp rise in import prices

Although the annual average increase of more than 11 % in import prices compared with 1999 was primarily in response to the oil price trend and the weak euro, the increase was almost fully restricted to raw materials and input goods. Import prices of mining products, including oil, exceeded their previous year's level by more than 50 %, but in the case of basic goods the rise was just under 8 %. By contrast, the prices of some finished goods manufactured by the capital

International commodity and import prices

Chart 15



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goods sector as well as those from the durable and non-durable sectors increased by no more than 3 %. As finished goods with their comparatively modest prices increases form the core of German exports, the terms of trade deteriorated discernibly. In 2000 the trading loss amounted to almost 7 % on an annual average, measured in terms of price statistics.

Price rise in raw material intensive producer goods

As in the case of imports the producer prices of industrial products sold on the German market rose most in the raw-material-intensive input sector. At just under 7 %, the average annual price increases were much steeper in that sector than in the case of durable and non-durable goods. Price rises in each of these two categories were no more than about 1 %. In the capital goods industry prices were actually largely unchanged despite heavy demand and the increasing utilisation of production capacity. Overall, industrial producer prices exceeded their previous year's level by 3.4 % on an annual average. This represented a substantial turnaround in the price trend given the price reductions during the previous two years.

Inflationary pressures were likewise greater at the consumer level in 2000. According to the consumer price index of all households, the annual average in-

Consumer price trend excluding energy moderate

crease rose to 1.9% compared with 0.6% in 1999. In the autumn of last year rates of 2.5% were reached at times, but at the end of 2000 the rate of the year-on-year increase eased to 2.2% again. The rise in prices was essentially due to higher energy prices. By contrast, domestic price rises remained comparatively low with the result that the average increase in consumer prices, excluding energy, amounted to no more than 0.8%.

The Harmonised Index of Consumer Prices used by the European Central Bank stood at an annual average of 2.1% for Germany and thereby just exceeded for the first time since the beginning of monetary union the medium-term stability benchmark which is defined as a year-on-year inflation rate of less than 2%. The apparent risk to the anti-inflationary objective last year was kept in check in that, given the strongly volatile energy prices, which were a major factor in escalating the inflation rate, rising prices, judging by experience, are followed by a period of price moderation.

Sharp rise in energy prices

Judging by developments on the international markets, the price situation regarding fuels and light heating oil relaxed somewhat towards the end of the year. Even if the prices of gas as well as the contributions towards the cost of heat energy continued to rise as a result of delayed adjustment, there were price reductions in the case of energy sources overall. At 14.5%, however, energy prices rose very steeply on an annual average in 2000.

Small price rise in manufactured goods, cheap food

Given an annual average increase of only 0.2%, consumer prices of manufactured goods hardly changed. Above-average price rises – i.e. of more than 2% – occurred only in the case of books, newspapers and magazines. These were accompanied by a further price reduction of 3% for telecommunications, television and computer equipment. The price reductions for food which were triggered by the fierce competition between the supermarket chains ceased in the second half of the year. Even so, consumer prices on an annual average remained somewhat below the previous year's level.

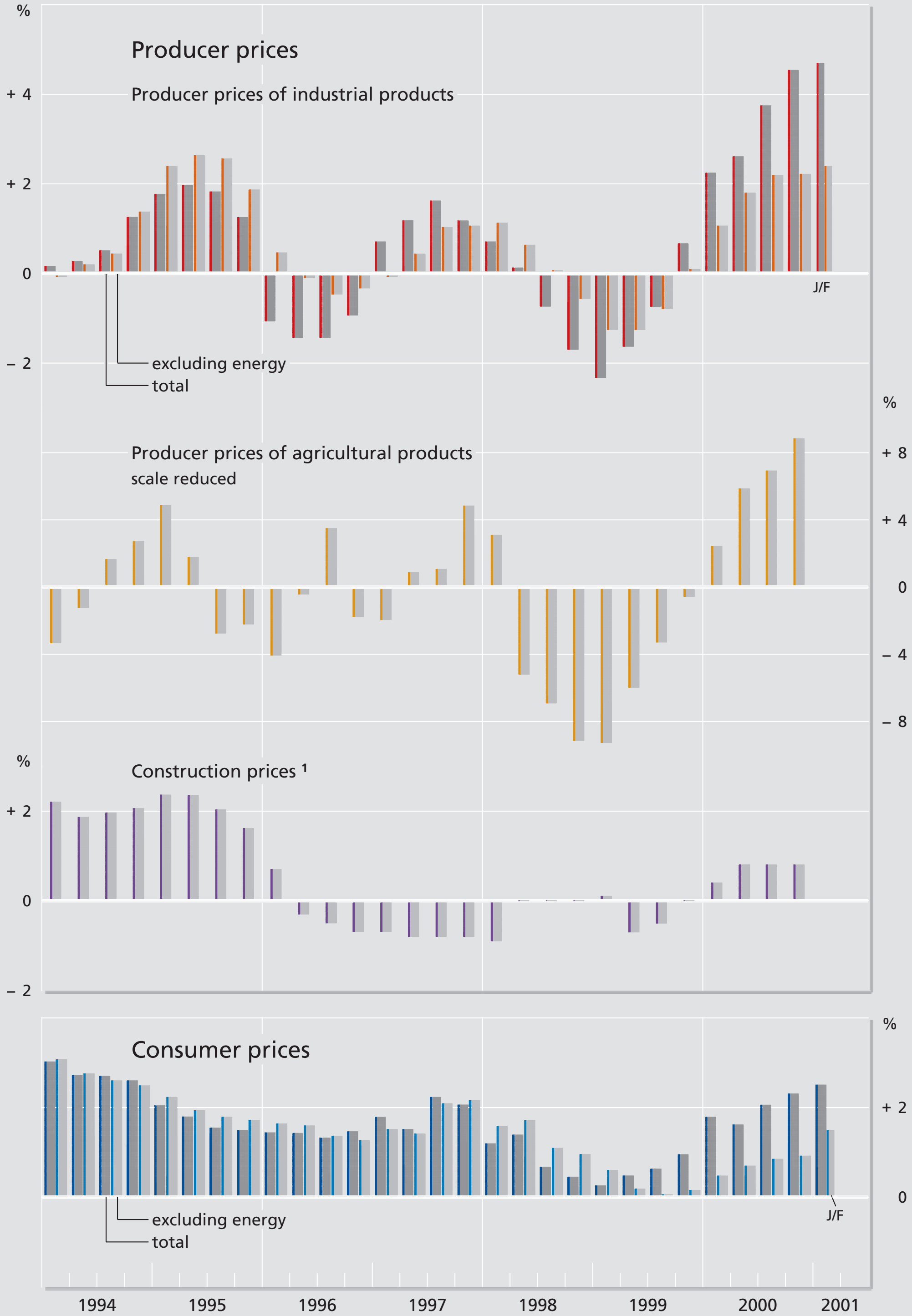
Price climate in the case of non-tradables calm

Prices of rents and services increased only moderately, with rates of 1¼% and 1½%, respectively. Competition-related price reductions in telecommunications, especially in the mobile telephone sector, continued. By contrast, public transport services cost about 2½% more compared with 1999, a development which has to be seen in connection with the rise in energy prices.

Domestic prices

Chart 16

Change from previous year in %, quarterly



1 Calculated by the Bundesbank.

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Prospects for 2001

With the easing of prices on the international oil markets, the prerequisites for an improvement in the terms of trade have become more favourable. In addition, the domestic economy will probably benefit significantly this year from the tax relief measures that have already come into force. These measures will provide important stimuli for private consumption in particular. However, the propensity to invest will also benefit from the reduction in direct tax rates even though the overall effect is limited by the new fiscal depreciation regulations. Largely stable unit wage costs and Germany's competitiveness, which is still regarded as high, likewise suggest that growth will continue, especially as the difficulties faced by the construction industry should no longer be so significant. However, the indirect oil price effects have probably not been fully realised yet, and the agricultural crises are also leaving an appreciable mark on food prices. Moreover, there is no ruling out the possibility that, following the cyclical downturn in the United States which has long been working as a world economic engine, external circumstances are exerting a greater braking effect than had been assumed in the autumn 2000 forecasts for the current year. Economic policy makers can best promote economic growth by providing a macroeconomically reliable framework and taking steps to promote further the greater degree of flexibility already existing on the goods and factor markets.

2. Foreign trade: marked by significant deterioration in terms of trade

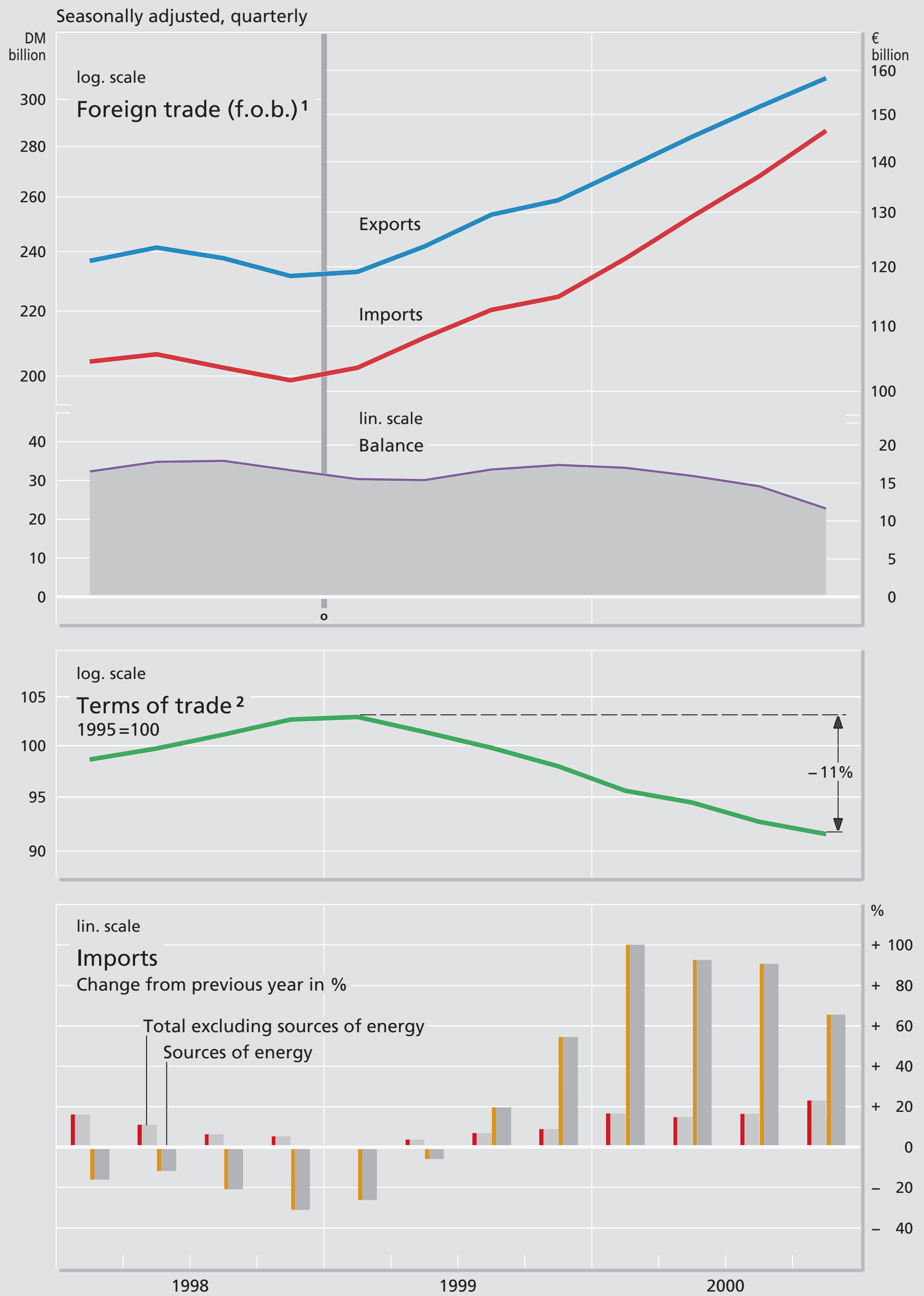
High rate of export growth ...

Germany recorded substantial growth in its export trade in 2000 as exporters improved their performance in foreign markets which grew rapidly right into the later summer. They also made increasing use of the pricing opportunities provided by the depreciation of the euro in order to pass on to foreign customers the higher costs arising from rising energy prices and the more expensive imported inputs. Overall, the value of German exported goods rose by 17 % compared with the previous year;[1] in real terms, too, there was a decidedly sharp increase in exported goods in view of the 3.5 % rise in export prices. However, above-average price rises occurred in the case of inputs. This was probably a reflection of the sharp rise in energy imports, which account for a greater portion of the manufacturing costs of inputs than they do in other economic sectors.

1 The data on trade in goods as a whole and on their regional breakdown also contain supplementary trade items and are calculated on an f.o.b./f.o.b. basis, i.e. without the freight and insurance costs payable on imports, which are shown under services.

Foreign trade and terms of trade

Chart 17



o From 1999 data in euro. — **1** Including supplementary trade items. — **2** Index of export prices as a percentage of the index of import prices.

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... especially in the IT sector

Suppliers of information and communications technology had the greatest sales successes. Last year German exports grew by 24 % in this field. Exceptionally high rates of growth were achieved within this segment, examples being a growth rate of almost 40 % in communications and of approximately 30 % in data processing equipment. By contrast, Germany's traditionally strong export sectors – for example, mechanical engineering and the car industry – posted a below-average performance despite substantial growth rates. Even so, together with the exported products of the chemical industry, the exports of these sectors continue to account for a sizeable share of German exports (about 44 %).

Gains in market shares

Trade with the other euro-area countries, which accounted for approximately 40 % of the growth in German exports in 2000, was the main focus of German exporters' sales and one of its major driving forces. The rise of approximately 15 % in export turnover with partners within the euro area was therefore a decisive determinant of the overall result. This was due mainly to the accelerated economic growth in the euro-area countries although German exporters also benefited from cost-related advantages which gave them a competitive edge over the average of the other euro-area countries; at all events, on a trade-weighted average unit labour costs in the other euro-area countries after the introduction of monetary union rose 2 ½ % more than in Germany. Exports to the United States increased even faster and exceeded their 1999 level by 17 ½ %. German exporters enjoyed particularly favourable sales conditions there owing to the combined effect of the rapid economic growth of the US market, which continued right into the autumn of last year, and the exchange-rate-related price advantages. However, German exporters also achieved above-average success in the markets of the emerging economies in South-East Asia where sales rose by about 29 % and in Japan where they rose by 27 %. Owing to the minor shares of these regions in German foreign trade, however, these growth rates, though extraordinarily high in themselves, make little difference to the overall result. By contrast, the central and east European countries in transition play a more important role in Germany's export trade; deliveries to these countries rose by 22 % last year. Exports to the member states of the Organization of the Petroleum Exporting Countries (OPEC) also increased in the course of the year and likewise exceeded their previous year's value by 22 % for the year as a whole.

Deterioration in energy balance sheet reduces export surplus

German imports grew more or less as steeply as exports did. At current prices the rise in the cost of imports, at approximately 21 %, actually far exceeded the rise in income from exports. About one-half of this is due to the higher import prices, which were 11.2 % above their 1999 level. Import prices of crude oil

Balance of payments

Table 8

€ billion

Item	1997	1998	1999	2000
I. Current account	– 2.4	– 6.1	– 16.8	– 23.0
1. Foreign trade	+ 63.4	+ 69.9	+ 66.6	+ 60.1
Exports (f.o.b.) [1]	452.3	487.5	509.7	596.6
Imports (f.o.b.) [1]	389.0	417.6	443.1	536.5
2. Services	– 37.6	– 42.2	– 49.4	– 54.9
of which				
Foreign travel	– 27.0	– 28.0	– 29.9	– 32.0
3. Factor income	– 1.2	– 6.5	– 8.2	– 1.2
of which				
Investment income	– 0.3	– 5.7	– 7.4	– 0.3
4. Current transfers	– 27.0	– 27.3	– 25.8	– 27.0
of which				
Net contributions to the EU budget [2]	– 14.3	– 15.1	– 13.3	– 14.9
Other official current transfers to non-residents (net)	– 4.5	– 3.9	– 4.1	– 4.1
II. Capital transfers [3]	+ 0.0	+ 0.7	– 0.2	+ 15.3
III. Financial account (net capital exports: –)	– 0.0	+ 16.4	– 35.3	+ 10.0
1. Direct investment	– 26.2	– 57.9	– 50.6	+ 138.4
German investment abroad	– 37.1	– 79.7	– 103.1	– 52.7
Foreign investment in Germany	+ 10.9	+ 21.8	+ 52.5	+ 191.1
2. Portfolio investment	+ 1.0	+ 4.5	– 13.6	– 164.2
German investment abroad	– 79.8	– 131.0	– 178.2	– 210.3
of which: Shares	– 34.0	– 61.9	– 67.9	– 107.7
Bonds and notes	– 41.9	– 56.6	– 94.7	– 72.4
Foreign investment in Germany	+ 80.8	+ 135.5	+ 164.6	+ 46.1
of which: Shares	+ 14.0	+ 51.8	+ 22.7	– 37.3
Bonds and notes	+ 62.6	+ 78.8	+ 97.9	+ 69.0
3. Financial derivatives	– 7.8	– 6.9	– 1.1	– 3.8
4. Credit transactions	+ 35.6	+ 80.8	+ 32.0	+ 41.7
Credit institutions	+ 33.0	+ 73.6	+ 52.3	+ 17.1
of which: short-term	+ 34.7	+ 73.7	+ 59.8	+ 38.3
Enterprises and individuals	+ 11.3	+ 6.2	+ 32.9	+ 1.5
of which: short-term	+ 12.0	– 0.3	+ 30.9	+ 0.8
General government	– 8.7	– 0.7	– 3.6	– 19.3
of which: short-term	– 3.4	+ 4.4	+ 5.1	– 17.9
Bundesbank	– 0.1	+ 1.8	– 49.5	+ 42.4
5. Other investment	– 2.6	– 4.2	– 2.1	– 2.0
IV. Change in the foreign reserves at transaction values (increase: –) [4]	+ 3.4	– 3.6	+ 12.5	+ 5.8
V. Balance of unclassifiable transactions	– 1.0	– 7.4	+ 39.8	– 8.1

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. — **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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alone were 85 % higher year-on-year. As a result of this extreme increase in the price of oil imports, Germany's external energy balance sheet deteriorated by approximately € 18 ½ billion compared with the previous year. The decline of € 6 ½ billion in the export surplus to approximately € 60 billion last year is largely due to this.

Larger deficit on current account

At € 83 billion, the deficit on invisible current transactions was almost as large as in 1999. A favourable factor here was that German investment income generated abroad increased more sharply than the corresponding interest payments made to non-residents. A possible contributory factor here was that the euro value of income from German US dollar assets tended to increase as a result of the appreciation of the US dollar against the euro. The outcome was that the deficit on the German current account in 2000 rose by € 6 billion to € 23 billion.

Large corporate acquisition dictates volume and direction of capital flows

A corporate acquisition in telecommunications, which was followed by a reorganisation of the group's structure later in the year, was of outstanding significance for the German financial account in 2000. This was due, firstly, to the fact that the amounts of capital involved were many times greater than the volumes hitherto recorded in comparable deals and, secondly, to the multiplicity of associated transactions in the various segments of the financial account.

Foreign direct investment in Germany reaches record level

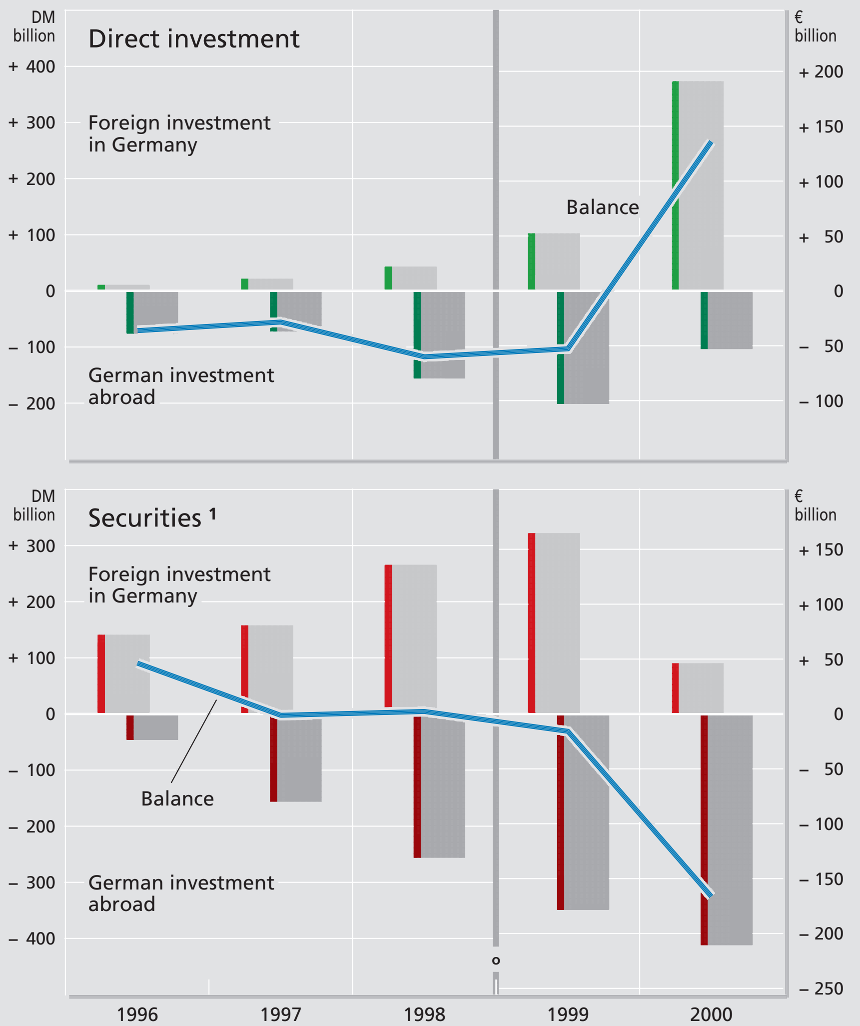
The corporate merger had a direct effect on direct investment. The acquisition of the German enterprise had such an impact that in 2000 Germany recorded net capital imports (of € 138 ½ billion) through direct investment for the first time for more than 25 years. All in all, foreign shareholders invested a record € 191 billion in German enterprises compared with € 52 ½ billion in 1999. Despite that, the financial standing of foreign subsidiaries domiciled in Germany did not improve to a corresponding degree because the most significant transaction in terms of value took the form of an exchange of shares and was therefore not directly associated with the provision of additional funds. As in previous years, the granting of loans by foreign proprietors played the most important role in the funding of foreign subsidiaries domiciled in Germany – apart from the merger mentioned above.

German direct investment abroad declines

Compared with foreign investment in Germany, direct investment by German enterprises abroad was much lower in terms of value in 2000 (€ 52 ½ billion); however, the rate of foreign expansion by German enterprises appears to have declined somewhat in terms of the investment levels in the previous two years as well. The aforementioned reorganisation of the internationally integrated

Financial transactions with non-residents

Chart 18



1 Excluding direct investment.– o From 1999 data in euro.

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group, which resulted in the sale of foreign participating interests, played an important part in this. Furthermore, the funds which German enterprises borrow from their foreign financing subsidiaries and which are shown as deductions under direct investment increased sharply. It may also be that the changed interest rate and exchange rate patterns and the expected downturn in economic growth in the United States induced German firms to pursue a more cautious investment policy abroad. The fact that the financing conditions, especially those relating to technology-oriented enterprises, have become tighter as a result of the worldwide decline in the relevant share prices and that their urge to expand might therefore have been checked lends weight to this argument.

Net capital exports through portfolio investment

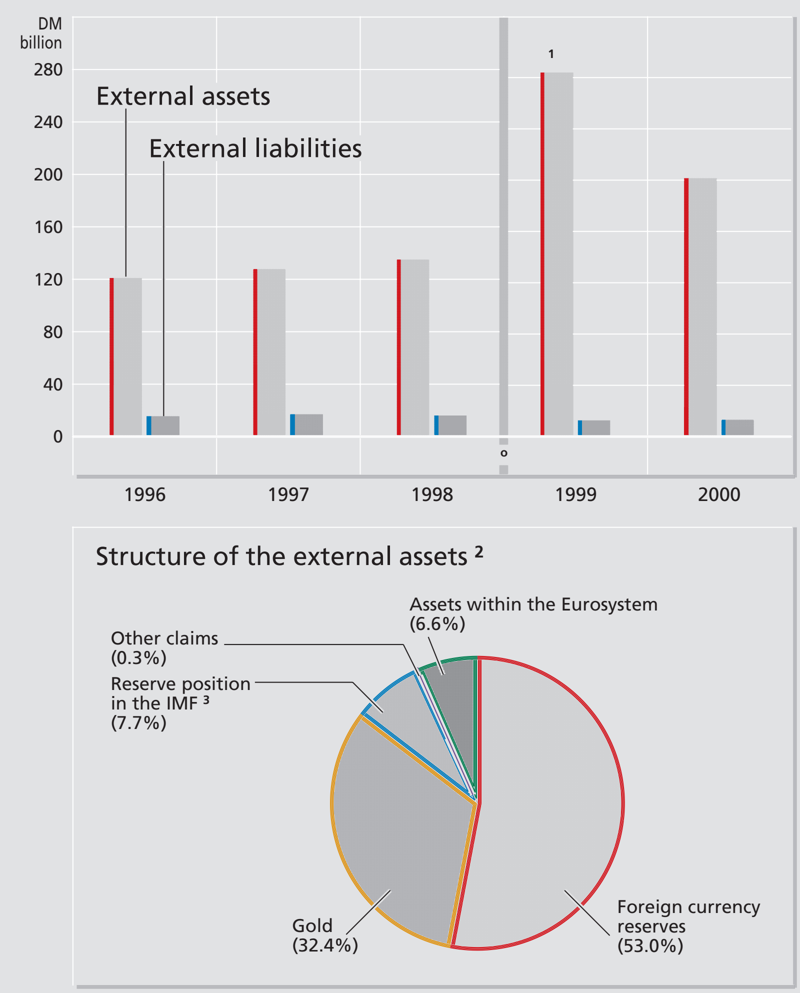
Portfolio investment, which resulted in net outflows of funds (€ 164 billion), provides a mirror image to the net capital imports that arose from direct investment. Most of the sizeable deficit is due to the aforementioned exchange of shares, which is shown statistically as a withdrawal of foreign capital from the German share market and the acquisition of foreign shares by German residents. Even if this specific incident is disregarded, however, German residents invested heavily in foreign equities – despite the turbulence of the international stock exchanges. Direct purchases amounted to a total of € 107½ billion. In addition, they purchased shares in foreign investment funds (€ 32 billion), which presumably also invested a large part of the funds in foreign shares. By contrast, purchases of foreign bonds and notes declined markedly in 2000 whereas they had increased sharply during the first year of monetary union (€ 72½ billion compared with € 94½ billion in 1999). Evidently the pace at which German bond portfolios are being reorganised as a result of EMU has slackened. The upshot was that in 2000 German investors purchased foreign securities worth € 210½ billion; when compared with 1999 this represents an increase of 18%.

Less foreign investment in German market

A different picture emerges of the other side of portfolio investment, i.e. the investment by non-residents in German securities. At € 22 billion, demand from foreign investors for German public bonds was again lower than in the previous year; it had already been in decline in 1999 (at € 32½ billion). However, the downturn in interest in 2000 was even greater in the case of non-residents' acquisitions of German private bonds and German money market paper (€ 47 billion and € 3½ billion, respectively); in 1999 foreign investors were greatly interested in these financing instruments, in particular. At the same time, this development contrasts to a certain extent with the heavy demand for euro-area bonds from investors in non-euro-area countries, but that was evidently of much greater benefit to other euro-area countries. It must also be remembered, however, that Federal bonds offer the lowest yields within the euro area in view of their high degree of liquidity and their benchmark function in the euro bond market. Furthermore, German borrowers issue some of their international bonds through their foreign subsidiaries in other European banking centres with the result that purchases of these bonds by non-euro-area residents do not lead to corresponding inflows of funds through German portfolio investment. Instead, these purchases are recorded indirectly, if at all, in the financial relationships of German firms to affiliated enterprises provided the funds are passed on to the German parent company. The liquidation of German equities in connection with the aforementioned corporate merger concealed the heavy foreign investment in the domestic share market. If this special factor is eliminated, it is

External position of the Bundesbank

Chart 19



o From 1999 data in euro. — **1** Increase influenced by market-valuation of the foreign reserves in the "Opening balance sheet in euro" (plus € 26.2 billion). — **2** End of 2000. — **3** Including special drawing rights.

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estimated that, in terms of value, non-residents invested three times as much in German shares as they had done in 1999 (€ 22 ½ billion).

Influx of funds through credit transactions fairly moderate

Non-securitised cross-border financial flows were fairly moderate in comparison with the large capital flows arising from portfolio investment and from direct investment – although these largely cancelled out. All in all, € 41½ billion net was imported in this way. Contrary to the overall trend, general government transferred € 19 ½ billion abroad; the investment of part of the earnings from the auction of UMTS licences with foreign banks played a decisive role here. By contrast, there were net inflows of funds into the German banking sector. German credit institutions accounted for € 17 billion of these and the Bundesbank for € 42 ½ billion. Contrary to what happened in 1999, a large deficit arising from the payment system TARGET was reflected in the Bank's accounts in 2000.

Sharp decline in external position of the Bank

These inflows of funds were also a decisive reason for last year's sharp decline in the Bank's net external position, which fell from € 136 billion at the end of 1999 to € 94 billion at the end of 2000 whereas in 1999 it had increased by a similarly large amount. There is a different reason for such movements in the Bank's external position since the beginning of EMU. As a result of the TARGET payment system, part of the external payments by banks and non-banks is now reflected in the Bank's balance sheet without any specific action on the part of the Bank. The change from plus to minus from one month to the next or from one year to the next illustrates the transitory nature of these balances.

Valuation gains increase foreign reserves slightly

The most important item in the Bank's external position at the end of 2000 was the foreign reserves, which, at current market and exchange rates, amounted to just under € 94 billion. The increase of approximately € 1 billion last year was ultimately the result of revaluation gains whereas the current transactions recorded in the balance of payments in 2000 resulted in a decline of approximately € 6 billion in the foreign reserves. The foreign exchange holdings of € 53 ½ billion at the end of 2000 accounted for 53.0 % of the external assets; monetary gold worth € 32 ½ billion accounted for a further 32.4 % and the reserve position in the IMF (including the special drawing rights) worth € 8 billion for a further 7.7 %. In the case of the last two items mentioned both the transaction-related and the valuation-related changes were moderate. The Bank's external claims were partly offset by a small amount of external liabilities (€ 6 ½ billion) mainly consisting of deposits of other central banks and international organisations.

3. Underlying conditions improved by fiscal policy

(a) Structural reforms

Tax reform

In the field of fiscal policy important decisions were taken in the guise of the tax reform and the pension reform which improve the underlying conditions for business activity and make a start on tackling the problems related to demographic developments. The effect of the tax reform which was adopted last year will be – especially through lower tax rates – to reduce the previous locational disadvantages faced by firms in Germany and to stimulate performance. Cor-

General government finance *

Table 9

Item	1998 p	1999 pe	1999 pe	2000 pe 1	1998 p	1999 pe	2000 pe
	DM billion		€ billion		Change from previous year in %		
Central, regional and local authorities							
Expenditure							
Expenditure on personnel	325.5	330	168.7	169.0	+ 0.1	+ 1.5	+ 0
Other operating expenditure	137.4	143	73.1	74.1	+ 1.2	+ 4	+ 1.5
Transfers 2	373.7	395.5	202.2	205.0	+ 4.9	+ 6	+ 1.5
Interest paid	133.7	136.5	69.8	67.7	+ 1.3	+ 2	– 3
Fixed capital expenditure	79.7	81	41.4	41.2	– 0.5	+ 1.5	– 0.5
Financial aid 3	79.8	74.5	38.1	38.1	+ 0.8	– 6.5	– 0
Total expenditure 4	1,128.8	1,162	594.1	595.4	+ 1.8	+ 3	+ 0
of which							
Federal Government 5	495.6	521.5	266.6	264.6	+ 3.2	+ 5	– 1
West German Länder Governments 6	380.3	385	196.8	200.9	+ 1.0	+ 1	+ 2
East German Länder Governments	104.7	105	53.7	54.2	– 0.5	+ 0.5	+ 1
West German local authorities	226.3	232	118.6	120.4	– 0.2	+ 2.5	+ 1.5
East German local authorities	52.4	51.5	26.3	25.6	– 3.2	– 1.5	– 3
EU 7	42.2	39.5	20.2	21.7	+ 1.3	– 6	+ 7.5
Receipts							
Tax revenue	832.0	885.5	452.7	467.1	+ 4.4	+ 6.5	+ 3
Other receipts	243.3	223.5	114.3	97.0	+ 10.2	– 8	– 15
Total receipts 4	1,072.1	1,104	564.5	561.1	+ 5.7	+ 3	– 0.5
of which							
Federal Government 5, 8	439.0	470	240.3	240.6	+ 5.3	+ 7	0
West German Länder Governments 6	360.5	371.5	189.9	194.8	+ 3.3	+ 3	+ 2.5
East German Länder Governments	96.4	97.5	49.9	50.1	+ 2.3	+ 1	+ 0.5
West German local authorities	231.4	236	120.7	121.7	+ 3.8	+ 2	+ 1
East German local authorities	51.5	51	26.1	25.6	– 2.1	– 1	– 2
EU	42.2	39.5	20.2	21.7	+ 1.3	– 6	+ 7.5
Deficit (–)	– 56.7	– 58	– 29.7	– 34.3	.	.	.
of which							
Federal Government	– 56.6	– 51.5	– 26.3	– 24.0	.	.	.
West German Länder Governments 6	– 19.7	– 13.5	– 6.9	– 6.1	.	.	.
East German Länder Governments	– 8.3	– 7.5	– 3.8	– 4.1	.	.	.
West German local authorities	+ 5.1	+ 4	+ 2.0	+ 1.3	.	.	.
East German local authorities	– 0.9	– 0.5	– 0.3	+ 0	.	.	.
"German Unity" Fund	+ 0.7	+ 0.5	+ 0.3	+ 0.5	.	.	.
Redemption Fund for Inherited Liabilities	+ 24.2	+ 9.5	+ 4.9	+ 0.5	.	.	.
ERP Special Fund	– 0.2	+ 1	+ 0.5	– 2.6	.	.	.
Social security funds							
Expenditure	808.6	831.5	425.1	434.1	+ 1.8	+ 3	+ 2
Receipts	813.0	840	429.5	434.3	+ 2.0	+ 3.5	+ 1
Surplus (+)	+ 4.4	+ 8.5	+ 4.3	+ 0.3	.	.	.
General government, total							
Expenditure	1,819.1	1,857	949.5	957.9	+ 1.2	+ 2	+ 1
Receipts	1,766.7	1,807.5	924.2	923.9	+ 3.6	+ 2.5	– 0
Deficit (–)	– 52.3	– 49.5	– 25.3	– 34.0	.	.	.

* As defined in the government finance statistics; excluding hospitals keeping commercial accounts, but including special accounts. — **1** Excluding UMTS proceeds (€ 50.8 billion). — **2** Mainly social expenditure and current grants to the enterprise sector. — **3** Expenditure on investment grants and loans to third parties, plus the acquisition of participating interests. — **4** Including differences in clearing operations. — **5** The supplementary Federal grants and the Länder Governments' shares in mineral oil tax are included here on a gross basis. — **6** Including Berlin. — **7** EU expenditure financed out of EU revenue in Germany. — **8** The figure includes the Bundesbank's profit transfer in the amount of DM 7 billion as provided for in the budget. The amount of the actual Bundesbank profit transfer in excess of this is booked as revenue of the Redemption Fund for Inherited Liabilities.

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porations are benefiting in particular from the lowering of corporation tax rates at the start of this year to a uniform 25 % and non-corporations from the virtual abolition of the special burden which they previously faced in the form of the trade tax as they can now offset it against their income tax liability. The income tax burden on business earnings is likewise being eased as income tax rates are being progressively lowered up to 2005. The marginal tax burden is being appreciably reduced, in particular, at the bottom and top end of the income scale (to 15 % and 42 %, respectively, in the final phase – in both cases excluding the solidarity surcharge); that should also have a positive impact on the labour supply. In a first step the lowest and highest income tax rates were reduced at the beginning of this year to 19.9 % and 48.5 %, respectively. Moreover, corporate restructuring is being facilitated by the fact that, simultaneously with the change of corporation tax regime, capital gains accruing to corporations from the disposal of shareholdings have been granted tax exemption. On the other hand, tax depreciation allowances are being considerably restricted. It is therefore uncertain whether the tax reform will have a lasting positive impact on domestic capital formation. What is more, the existing harsher tax treatment of distributed profits compared with retained profits has been exacerbated.

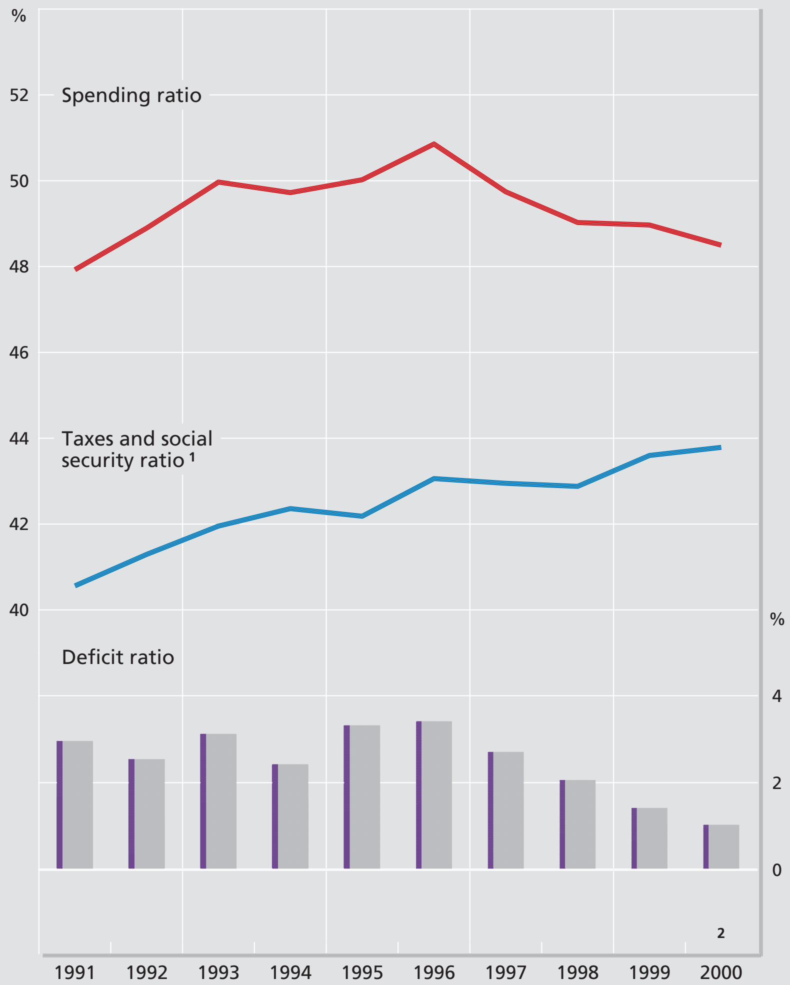
Pension reform

The effect of the pension reform will be to moderate the increase in the burden to be borne by future generations resulting from the ageing of the population, whereas present-day pensioners and those retiring in the next few years will have to shoulder a slightly heavier load compared with the *status quo.* To achieve this, the growth of pension benefits under the pay-as-you-go statutory pension insurance system will be slowed from 2003 by a change in the formula used to compute pension increases. As a result, the contribution rate to the statutory pension system is to be kept below 22 % until 2030. At the same time, the limitation of the pay-as-you-go system will create both the scope and the need for an expansion of the role of the funded pension component, compared with the previous legal situation, if the present pension level is to be maintained. The shortfalls in old-age provision arising in the pay-as-you-go system are therefore to be bridged by additional funded private pension plans, which are expected to achieve a higher yield in this complementary function. They are to be promoted by making contributions to such private pension plans tax-free or by granting government subsidies. The benefits subsequently paid out under such schemes will be fully subject to tax, however. This government promotion is to begin in the coming year and is to be raised in steps until 2008. On balance the pension reform will help to achieve a fairer sharing of burdens between the

General government fiscal ratios *

Chart 20

As % of GDP



* As defined in the national accounts. — 1 Taxes and social security contributions; the other revenue of general government (2000: 3.7% of GDP) is not included here. — 2 Excluding the proceeds from the UMTS auction.

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generations. Moreover, it will place old-age provision on a broader footing, which is also welcome from a risk diversification perspective.

Need for further action

The two reforms are important steps; however, they will probably have to be followed by additional measures in the future. Further action is required because the overall burden of taxes and social security contributions is still heavy and because the tax reform has created new tax distortions. Regarding the pension reform, it is not certain whether the envisaged contribution rate path really can be maintained up to 2030. That objective could be jeopardised, for example, by the promise that the defined standard net pension level will not fall below 67 %

given that the Federal Government may be obliged to grant tax exemption to contributions to the statutory pension insurance scheme, too, and concurrently to tax pension benefits more highly. In addition, a further increase in contribution rates seems likely after 2030. Urgent action is also required in the case of the health insurance system, which is equally affected by the demographic developments. It is imperative to improve the efficiency of the system on a lasting basis, especially by allocating a greater role to individual financial responsibility and by strengthening institutional competition.

(b) Developments in 2000

Small rise in expenditure

In the past year the expenditure of the central, regional and local authorities, as defined in the budgetary accounts, hardly increased at all. This was made possible by the improved situation on the labour market, the persistently low level of interest rates and, not least, by the retrenchment package agreed for the Federal budget and the moderate pay settlement in the public sector. Expenditure on personnel rose little, partly owing to the ongoing reduction in staff levels, and fixed capital expenditure declined slightly. Spending by the social security funds again expanded distinctly (by well over 2 %). In particular, pension costs went up appreciably, even though pensions were adjusted in mid-2000 only in line with inflation, as the number of pensions increased significantly. On the other hand, the rise in spending of the statutory health insurance system slowed somewhat. The expenditure of the Federal Labour Office actually declined by a perceptible margin. At just under 1%, total general government spending grew more slowly than in 1999 (over 2 %).

Substantial additional tax receipts

As in the two preceding years, actual tax revenue was considerably higher than the budgeted amount, even though nominal economic growth was a little slower than had been expected at first. Tax receipts rose by just over 3 %, exceeding the official forecast of autumn 1999 (after adjustment for the changes in tax legislation) by almost € 4 billion. Even so, the size of these excess receipts vis-à-vis the budget figure was not as great as had been expected most recently. The overall tax ratio increased further by 0.1 percentage point to 23 % (as recorded in the government finance statistics), although tax relief measures and tax increases more or less cancelled each other out. Sizeable increases were shown, in particular, by the profit-related taxes. This was due not only to the widening of the tax base through the package of measures agreed in spring 1999 but also to substantial tax receipts in respect of earlier years and large profit distributions. By contrast, wage tax receipts grew by only 1½ % in the

Indebtedness of the central, regional and local authorities

Table 10

€ billion

Item	1999	2000 pe	1999	2000 pe
	Level at year-end 1		Change from previous year 2	
Borrowers' note loans	460.6	448.8	– 10.3	– 11.8
Securities	693.6	722.7	+ 44.8	+ 29.1
Other debt	45.8	44.6	– 0.3	– 1.2
Total indebtedness	1,200.0	1,216.1	+ 34.2	+ 16.2
Federal Government 3	714.1	715.8	+ 26.8	+ 1.8
West German Länder Governments	274.2	282.7	+ 5.6	+ 8.5
East German Länder Governments	53.2	55.7	+ 3.0	+ 2.5
West German local authorities 4	81.5	82.1	+ 0.2	+ 0.6
East German local authorities 4	20.7	20.8	+ 0.3	+ 0.1
"German Unity" Fund	40.1	40.4	– 0.4	+ 0.3
ERP Special Fund	16.0	18.4	– 1.4	+ 2.4
Indemnification Fund	0.1	0.2	+ 0.1	+ 0.1

1 In the definition relevant for compliance with the EMU convergence criterion, the indebtedness comes to € 1,210 billion in 1999 and € 1,226 billion in 2000. — **2** The change in the debt level deviates from net borrowing, since it includes the assumption of old debt and transfers of items previously included in general government accounts. — **3** As of July 1, 1999, the Federal Government assumed joint responsibility for the debt of the Redemption Fund for Inherited Liabilities, the Federal Railways Fund and the Equalisation Fund for Safeguarding the Use of Coal. Since that time, the figures regarding these special funds have been included in the Federal Government figures. — **4** Including municipal special-purpose associations.

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wake of the second stage of the tax reductions and the further raising of child benefit; nevertheless, they exceeded expectations owing to the rise in employment. By contrast, the growth by 2¾ % in turnover tax receipts fell far short of expectations. The same applies to mineral oil tax revenue, the increase in which (not quite 4 %) was held down above all by consumer restraint in response to the jump in oil prices and the raising of the tax rates.

Small growth of social security contributions and decrease in other receipts

The amount raised from social security contributions increased by little more than ½ %. This was due to the further lowering of the contribution rate to the statutory pension insurance scheme in 2000 by an average of 0.4 percentage points, which was made possible not least by the tax-financed increase in the Federal grant. Among the other receipts of the general government sector, the Bundesbank profit, privatisation proceeds and loan repayments all fell substantially.

Budgetary out-turn for 2000

The upshot of all this was that the aggregate deficit recorded in the budgetary accounts of the central, regional and local authorities (excluding the extraordinary proceeds of the UMTS licence sales amounting to almost € 51 billion) widened by € 4½ billion compared with 1999 to almost € 34½ billion. Thanks not least to the higher tax receipts, however, the deficit was smaller than that envisaged in the budgets. The deficit run up by the Federal Government, at just under € 24 billion, was € 1½ billion lower than the projected shortfall and was also € 2½ billion less than the corresponding figure in 1999. It was helped by the fact that actual Federal Government spending was slightly below the planned figure. The deficits of the Länder Governments fell by a little less than € 1 billion to € 10 billion. The fiscal out-turn of the local authorities was not quite as good, although a surplus was again generated (€ 1½ billion). The special funds turned in a much poorer result than in the previous year, recording a deficit of over € 1½ billion following a substantial surplus in 1999. Besides the drop in the Bundesbank profit, this was due to the lower level of loan repayments to the ERP Special Fund. The social security funds, after having generated a surplus of almost € 4½ billion in 1999, more or less broke even in 2000 following the replenishment in the previous year of the fluctuation reserves of the statutory pension insurance scheme to the statutory minimum level of one month's expenditure. The total general government deficit increased by € 9 billion to € 34 billion.

Slight progress in fiscal consolidation

Despite the larger budget deficit, slight progress was nevertheless made towards the consolidation of public finance. This can be seen more clearly from the fiscal trend as shown in the national accounts which – in contrast to the government finance statistics – notably disregard privatisation proceeds and loan repayments. Excluding the massive exceptional proceeds from the sale of UMTS licences, the general government deficit ratio as defined in the national accounts fell by 0.4 percentage point to 1.0 %. (Including the UMTS proceeds, a surplus was generated amounting to 1.5 % of GDP.) The general government expenditure ratio decreased by 0.4 percentage point to 48.6 % and the revenue ratio by 0.1 percentage point to 47.5 %. Although the narrowing of the deficit was attributable partly to the cyclical upswing, a structural improvement also becomes apparent if it is adjusted for temporary influences – such as the one-off indemnification payments to wartime forced labourers and the large surplus generated by the statutory pension insurance scheme in 1999. The Federal Government's determination to maintain the path of fiscal consolidation was also underlined by the fact that the proceeds from the UMTS licence sale were used in full for debt redemption. On the other hand, the resulting interest savings are being used to fund other expenditure – especially additional investment in the transportation sector. Although that will lead to a qualitative improvement in the expenditure profile, it makes no direct contribution to a sustained deficit reduction.

(c) Outlook for 2001 and beyond

Implications of the tax reform

The budgetary developments of the central, regional and local authorities in the current year and over the medium term will be shaped by the sizeable revenue losses caused by the tax reform, which is coming into effect in three stages up to 2005. In the first stage (2001) shortfalls in receipts amounting to an estimated € 23 billion, or over 1% of GDP, are expected. They are mostly attributable to the lowering of income tax rates and are likely to trigger additional stimuli for private consumption. That will create a macroeconomic counterweight to the slackening external momentum. The official tax estimate of last autumn – on which the budget plans for 2001 are largely based – envisaged a drop by more than 2 % in tax receipts, leading to a fall of 1¼ percentage points in the tax ratio this year vis-à-vis 2000 given assumed nominal economic growth of just over 3½ %. The overall taxes and social security ratio will decline even more strongly than the tax ratio owing to the further cut by 0.2 percentage point in the contribution rate to the statutory pension insurance scheme at the beginning of this year to 19.1%, which is related to the further increase in energy taxation.

Risk of a sharper rise in the deficit ratio

On the basis of the budget plans of the central, regional and local authorities, expenditure looks set to increase by about 1½ % this year, although that will require savings at all levels of government. However, that will not prevent a marked rise in the government deficit, largely stemming from structural causes. Consequently, the deficit ratio might exceed the level of 1½ % set in the Federal Government's stability programme. That possibility is reinforced by the fact that actual tax revenue last year fell short of the projection made in autumn 2000 and that economic growth this year seems likely to be a little weaker than assumed at that time. In addition, estimates in connection with the tax reform are subject to considerable uncertainty.

Medium-term consolidation requirements

The Federal Government has announced its determination to absorb any additional burdens that may arise with respect to either receipts or expenditure in the course of implementing the 2001 budget by making further savings. But a rigorous course of retrenchment will have to be pursued by all levels of government over the medium term, too, if a fundamentally balanced budgetary position is to be attained in accordance with the requirements of the European Stability and Growth Pact. That need is reinforced by the fact that the revenue shortfalls arising from the tax reform will continue to grow beyond the financial planning horizon and that mounting revenue losses are foreseeable from the

Record of general economic and fiscal policy measures

January 1, 2000
A number of fiscal policy measures come into effect; they include, in particular, the second stage of the 1999–2000–2002 Tax Relief Act, the amplified family assistance measures, the second stage of the "ecological tax reform" and the lowering of the contribution rate to the statutory pension-insurance scheme by 0.2 percentage point to 19.3 %.

January 26, 2000
In its Annual Economic Report, the Federal Cabinet expects the real gross domestic product to grow by 2 ½ % in the year 2000. Stronger foreign demand is expected to be accompanied by increasing domestic stimuli imparted by private consumption and fixed capital formation. The labour market is likely to benefit distinctly from the acceleration of growth; price stability will be maintained.

February 9, 2000
The Federal Cabinet approves a Tax Reduction Bill, encompassing the reform of business taxation planned for 2001 and more far-reaching cuts in the income-tax scale. The planned reform of business taxation includes, in particular, a lowering of corporation-tax rates to a uniform 25 %, the replacement of the existing corporation-tax imputation system by a system providing tax relief on dividends, the exemption from taxation of corporate profits from the sale of participating interests, the crediting of sole proprietorships' and partnerships' trade tax paid against their income-tax liability on a standardised basis or, alternatively, an option in favour of corporation tax, and – as the most important counter-financing item – a considerable tightening of the rules for claiming depreciation allowances. With respect to income tax, the third stage of the (already adopted) 1999–2000–2002 Tax Relief Act is to be brought forward by one year to 2001; moreover, the top rate and the entry rate of income tax are to be lowered, in stages, to 45 % and 15 %, respectively, by 2005. The new measures are expected to yield tax relief totalling € 22 ½ billion.

June 13, 2000
For public sector employees, a pay settlement is agreed that runs for 31 months (until October 31, 2002) and provides, after a one-off payment of around € 51 in each of the months from April to July 2000, for an increase of 2 % in wages and salaries for a period of 13 months, and of 2.4 % for the ensuing 14 months. Wages and salaries in the new Länder will gradually be raised to 90 % of west German levels by the beginning of 2002.

June 15, 2000
In the Financial Planning Council, the Federal and Länder Governments and the local authorities reaffirm their inten-

tion of limiting the annual growth of public spending to not more than 2 % over the medium term, in order to ensure compliance with the deficit ceiling stipulated in the Maastricht Treaty, and to pave the way for the achievement of a balanced budget, in line with the objectives of the European Stability and Growth Pact. At the same time, they agree to exploit the scope available in order to pursue a growth-oriented tax policy along "financially tolerable" lines. The general government deficit ratio, expected to rise to 1½ % in 2001 on account of the tax reform, is to be reduced consistently thereafter.

June 21, 2000
The Federal Cabinet approves the draft Federal budget for 2001, involving total expenditure which, at € 244.8 billion, is marginally below the amount budgeted for in 2000, and a deficit of € 23.7 billion. The reduction of the deficit by € 1.7 billion relative to 2000, despite the loss of revenue due to the planned tax reform, is to be achieved by continuing the retrenchment policy, by higher receipts from privatisation and by savings on account of the reduction in unemployment. According to the medium-term financial plan, which is presented at the same time, the growth rate of spending is to be limited to an average of 1.6 % p. a. between 2002 and 2004, and the deficit is to be cut to € 10.6 billion in 2004. A balanced Federal budget will be aimed at in 2006.

July 6, 2000
The Bundestag approves the Act Establishing a "Remembrance, Responsibility and Future Foundation", on the basis of which German business and the public sector are to make available a total of € 5.1 billion to indemnify forced labourers during the period of National Socialism.

July 14, 2000
Following a mediation procedure, the Bundesrat approves the Federal Government's tax reform package, after it has been supplemented by a number of further pledges (which will have to be enacted by the end of the year). The amendments to the original bill include, in particular, a further lowering of the top rate of income tax to 42 % as from 2005 and a number of special relief measures for partnerships. On the other hand, the possibility originally envisaged for partnerships to opt for corporation tax is dropped, and the scope for crediting trade tax paid against the income-tax liability on a standardised basis is somewhat curtailed. Compared with the original bill, the aggregate tax relief provided by the three-stage tax reform is increased by € 9.4 billion.

August 17, 2000
The auction of UMTS licences in Germany yields proceeds totalling € 50.8 billion, all of which the Federal Government plans to use to redeem Federal debt. By contrast, interest payments saved on account of the debt redemption are to be used to finance other spending, notably on investment projects.

September 27, 2000
To ensure a certain "social cushioning" of the substantial oil-price rise, the Federal Cabinet approves a bill introducing a standard travel allowance for commuters, irrespective of the means of transport used, amounting to € 0.41 per kilometre travelled, and providing for the payment of a one-off subsidy towards heating costs at the rate of € 2.6 per sq m living space, to be granted to recipients of housing allowances and social assistance, and of benefits paid under the Federal Act on the Promotion of Education.

October 11, 2000
The Federal Government presents an updated stability programme, in which it has set itself the goal of gradually reducing the general government deficit ratio (in the Maastricht definition), following its rise to 1½ % in 2001 owing to the tax reform, and of reaching a balanced fiscal position in 2004. To this end, the growth of public expenditure is to be restricted to an annual average of 2 %, with the result that the general government spending ratio will be reduced from 48½ % in 1999 to 44 % in 2004. Simultaneously, this is to provide

Record of general economic and fiscal policy measures

(continued)

financial leeway for a 2½ percentage point decline in the tax and social security ratio, to 40½% in 2004. The government-debt-to-GDP ratio is due to reach the Maastricht limit of 60% in 2000 (not least owing to the UMTS proceeds) and to drop to 54½% by the year 2004.

November 9, 2000
The Federal Finance Ministry submits "fiscal policy guidelines" designed to provide fiscal policy-makers with guiding principles extending beyond the medium-term duration of the stability programme. These guidelines stress, in particular, the need to continue the consolidation efforts, with the objective of attaining, under normal economic conditions, public sector surpluses amounting to 1% of GDP in the period after 2006.

November 10, 2000
The Bundestag adopts the Supplementary Tax Reduction Act, by which further pledges made by the Federal Government with respect to the tax reform are implemented.

November 15, 2000
In its Annual Report, the German Council of Economic Experts forecasts a continuation of the economic upswing. It expects real economic growth to slacken only slightly, from 3% in 2000 to 2.8% in 2001. Buoyant domestic demand will supersede exports as the mainspring of economic activity. The Council gives a basically favourable assessment of the Government's tax, pension and budgetary policy. It expresses criticism, however, of the planned regulations in the labour market; what is required here, rather, is increased flexibility.

November 15, 2000
The Federal Cabinet approves the "Bill reforming the statutory pension-insurance scheme, and promoting the accumulation of funded assets for old-age provision (Bill Promoting Private Provision for Old Age)". In order to limit the expected increase in contribution rates to a level of not more than 22% in 2030, the pension reform strategy provides for restrictions on the benefits paid by the statutory pension-insurance scheme, which are to be implemented by a new general adjustment formula and, in the case of new pensioners only, a "compensatory factor" to be applied as from 2011. To close the resultant benefit gap in the pay-as-you-go procedure, funded supplementary private pensions on a voluntary basis are to be promoted by granting tax relief or by an allowance.

December 1, 2000
The Bundestag adopts the Federal budget for 2001, involving a deficit of € 22.4 billion, which is thus € 1.2 billion below the amount budgeted for in the draft Federal budget. Compared with the draft budget, expenditure has been cut by € 0.9 billion; moreover, receipts have been re-

vised slightly upwards in the light of the new tax estimate.

January 1, 2001
Major fiscal policy measures enter into effect: they include, in particular, the first stage of the Tax Reduction Act, a further increase in energy taxation, the associated lowering of the contribution rate to the statutory pension-insurance scheme by 0.2 percentage point to 19.1 %, the reform of the pensions payable in the event of reduced earning capacity, the new standard travel allowance for commuters (which includes minor modifications relative to the original bill) and an increase in motor-vehicle tax for transport equipment with relatively high pollutant emissions.

January 17, 2001
According to preliminary figures, the deficit recorded in the Federal budget for 2000 amounts to € 23.8 billion, and is thus € 1.5 billion below the budget estimate. This is primarily due to additional receipts totalling € 1.1 billion (€ 0.7 billion of which is accounted for by tax revenue) compared with the budget. Moreover, the planned expenditure volume is undershot by € 0.4 billion because the savings, notably in labour-market-related expenditure and interest payments, outweigh the extra spending (inter alia, on indemnification payments to forced labourers).

January 31, 2001
In its Annual Economic Report, the Federal Government expects economic activity to slacken somewhat, and forecasts that real economic growth will reach 2 ¾ % in 2001, against 3 % in the preceding year. The reasons for this slowdown are the faltering of growth in the USA and the uncertainties surrounding oil-price movements. The consumer price index will go up by approximately 1¾ %, and unemployment will decline distinctly.

February 16, 2001
The "Supplementary Bill Promoting Private Provision for Old Age" is passed by the Bundesrat. The "compensatory factor" is replaced by a modified pension-adjustment formula applying to all pensions. The level of benefits and contribution rates is now expected to be higher after 2030. The Bill Promoting Private Provision for Old Age, which regulates the tax promotion of private supplementary pensions, requires Bundesrat approval, and is submitted to the Mediation Committee for the time being.

February 21, 2001
The Federal Cabinet approves a benchmark bill for the apportionment of revenue between the public authorities in Germany, which – in line with the ruling of the Federal Constitutional Court – is meant to give concrete shape to the indefinite legal concepts of the financial constitution by means of general benchmarks, thus laying the basis for a new revenue-sharing act that is to be adopted, in a further step, by the end of 2004.

government promotion of private pension plans. Additional complicating factors are the ruling by the Federal Constitutional Court that further improvements must be made in the family allowance system in 2002 and the fact that greater tax relief may have to be granted to tax payers in connection with the tax treatment of contributions to the statutory pension insurance scheme. At its meeting in November 2000 the Financial Planning Council recommended maintaining the cap of 2 % on the annual increase in expenditure over the medium term. That will presumably necessitate further cuts in government benefits, especially if the process of deficit reduction is to be accompanied by a "qualitative" consolidation in the sense of an improvement in the structure of government spending – which means strengthening, above all, spending on infrastructure projects and education.

IV. European and international cooperation

1. European integration

(a) The introduction of the euro in Greece

Fiscal-policy convergence criterion met only with reservations

Once the Council of Economic and Finance Ministers (ECOFIN), acting on the basis of the convergence reports submitted by the EU Commission and the ECB Governing Council, had unanimously decided in June 2000 that Greece had met the convergence criteria for joining monetary union, the euro was introduced in Greece on January 1, 2001. In 1999 Greece's general government deficit, at 1.6 % of GDP, had for the first time fallen distinctly below the upper limit of 3 % set in the Treaty. In addition, public sector debt was on the decline, even if the government debt ratio, at 104 % of GDP, was still well above the reference value of 60 %. During the crucial twelve-month period between April 1999 and March 2000, the monthly year-on-year inflation rate averaged 2.0 %, and was thus distinctly below the ceiling of 2.4 % calculated during the convergence assessment. By contrast, during the same time-span, long-term interest rates, at an average of 6.4 %, were only slightly below the reference value of 6.6 % derived from trends in other EU countries. After Greece had joined the exchange-rate mechanism ERM II in March 1998, exchange-rate volatility declined sharply during the two-year observation period between April 1998 and March 2000. The revaluation of the drachma's central rate by 3.5 % in January 2000 (an adjustment towards the prevailing market-price level) was a further reflection of the gain in internal strength deriving from the reduced volatility of the drachma. The ECB Governing Council pointed out during the convergence assessment that the success in budgetary consolidation did not seem sufficiently sustainable and that those measures did not go far enough in the light of the high level of general government debt.

ECB Governing Council now enlarged to 18 members

On January 2, 2001, the Greek central bank paid up the balance of its share in the ECB's subscribed capital as well as its share in the reserves. Moreover, it transferred its contribution to the ECB's foreign reserve assets (equivalent to € 1.28 billion). Upon the entry of Greece into monetary union, the ECB Governing Council increased in size to 18 members. Article 10 of the ESCB/ECB Statute stipulates that, in the event of a tie, the President of the ECB has the casting vote.

(b) Ongoing monitoring of fiscal and economic policy

Broad progress in budgetary consolidation

The Stability and Growth Pact requires all EU countries to submit multi-year stability programmes (euro-area countries) or convergence programmes (other EU countries) to the ECOFIN council and the EU Commission and to update them annually. These programmes provide a detailed insight into member states' medium-term fiscal policies. On that basis, the Council decides whether the budgetary performance and plans of the individual member states meet the requirements of the Pact. Assessment of the most recent updates was completed in March 2001. The outcome was that nearly one-half of all EU member states were running budget surpluses in 2000 (according to the latest data, with Finland at the top of the table, followed by Luxembourg and Ireland), and that the other countries had continued to make progress in consolidation. Thanks to the dynamic economic growth, budget results were achieved that in many cases were better than planned. All the same, given the favourable economic framework, the Council was of the opinion that some member states could have pursued more ambitious budgetary consolidation policies. In Germany, owing to the reductions in income and corporation taxes, a temporary expansion of the budget deficit is being expected for 2001. For whatever year their updated programmes expire (2003, 2004 or 2005), all governments, with one exception, envisage either a balanced budget or surpluses. However, in the United Kingdom, there is the risk that its general government budget, currently in surplus, will slip back into deficit in the second half of the programme period as a consequence of investment projects to modernise its infrastructure.

Stability-oriented reminders owing to infringement of the Broad Economic Policy Guidelines

In May 2000 the ECOFIN council rated the implementation of the 1999 Broad Economic Policy Guidelines as having been an overall success. However, the Council felt that additional action needed to be taken, especially in the area of labour markets. It drew attention to features of the tax and social security systems which posed obstacles to employment. In the 2000 Broad Economic Policy Guidelines, member states were called upon to step up their efforts at budgetary consolidation and structural reform. These measures are also intended to achieve, as quickly as possible, the aim of strengthening Europe's competitiveness set by the Lisbon European Council in March 2000. At the same time, the Lisbon European Council agreed to hold regular spring meetings on economic and social policy issues. To that extent, the European Council intends to play a greater role in future in the formulation of Community economic policy. However, under the EC Treaty, responsibility for setting the Broad Economic Policy Guidelines still rests with the ECOFIN council. In early 2001 the Council set a precedent by issuing, pursuant to Article 99 of the EC Treaty, economic policy recommendations to a country whose economic policy was inconsistent with the Broad Guidelines; the Irish government was urged to introduce budgetary policy countermeasures in view of the rapid pace of inflation there. This was intended, in particular, to counter planned tax cuts and expenditure increases. Such measures could actually be supported by the large budget surplus, yet they would currently have a pro-cyclical effect.

Eurogroup should not focus on dialogue with ECB Governing Council

In the second half of 2000, under the French presidency of the EU, initiatives were taken to give greater internal and external prominence to cooperation among economic and finance ministers in the informal Eurogroup. To that end, the Eurogroup intensified its in-depth monitoring of economic and budgetary developments and of the euro-area countries' structural policies. Since that time, in order to render the outcome of the discussions more transparent to the public, press conferences have been held following the Eurogroup's meetings. In addition, in February 2001 the EU Commission submitted proposals aimed at strengthening economic policy coordination within the Eurogroup even further. Where those steps are aimed at promoting the implementation of government budget consolidation and the necessary structural reforms as fast as possible, the Eurogroup's activities are fully endorsed by the Eurosystem. However, efforts to push the dialogue with the Governing Council of the ECB (whose president is regularly invited to Eurogroup meetings) more into the foreground would pose problems. Diverting attention from the Eurogroup's important tasks would not be the only upshot of such action. Even if there is expressly no question of detracting from the ECB Governing Council's independence, the mere appearance

Planned fiscal developments according to the EU countries' updated stability or convergence programmes

Table 11

Programme/country	Year the programme expires	Fiscal balance as % of GDP: 2000 [1]	Fiscal balance as % of GDP: Final year of the programme	Gross debt as % of GDP: 2000 [1]	Gross debt as % of GDP: Final year of the programme
Stability programmes (Euro-area countries)					
Austria	2004	– 1.5	0.0	62.8	55.3
Belgium	2005	0.0	0.7	110.9	88.7
Finland	2004	6.7	4.9	44.0	32.2
France	2004	– 1.3	0.2	58.0	52.3
Germany	2004	– 1.0	0.0	60.3	54.5
Greece	2004	– 0.9	2.0	103.9	84.0
Ireland	2003	4.5	4.6	39.1	24.0
Italy	2004	– 1.5	0.3	110.2	94.9
Luxembourg	2003	5.3	2.5	5.3	[2] 5.1
Netherlands	2004	1.3	0.6	56.3	44.8
Portugal	2004	– 1.7	0.0	53.8	48.1
Spain	2004	– 0.4	0.3	60.6	49.6
Convergence programmes (Other EU countries)					
Denmark	2005	2.5	2.9	47.3	33.7
Sweden	2003	4.0	2.0	55.6	48.2
United Kingdom	[3] 2005	2.0	– 1.1	42.9	35.4

Sources: national stability or convergence programmes, Eurostat and the EU Commission. — **1** Estimates given in the programmes have been replaced by more up-to-date data; where applicable, adjusted for proceeds of the sale of mobile phone licences. — **2** According to the Commission's autumn forecast. — **3** Fiscal years, each beginning on April 1.

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of an attempt to influence the Eurosystem might seriously undermine public confidence in the euro in Europe and the rest of the world. This is why the ECB Governing Council will maintain the necessary distance from the economic and finance ministers and will, above all, definitely have to resist any notions amounting to an advance coordination of monetary policy with general economic policy.[1]

(c) Institutional preparations for EU enlargement

Institutional reforms have fallen well short of expectations

Following the Nice European Council meeting of December 2000, the Inter-Governmental Conference (IGC) on reform of the Treaty that commenced in February 2000 was likewise wound up by the Heads of State or Government. The Presidency Conclusions state that the agreed reforms (which remain to be ratified) will enable the EU to accept new member states from the beginning of 2003. The negotiations focused on improving the decision-making procedures in the Council and the Commission, so as to ensure the Union's ability to take

1 On the tasks of the Eurogroup and its relations with the Governing Council of the ECB, see also Deutsche Bundesbank, Recent institutional developments in economic and monetary cooperation, Monthly Report, January 2001, page 25 ff.

action even after it has grown to up to 27 nations. The Treaty of Nice will, with effect from 2005, shift the weighting of votes in the Council on decisions where qualified-majority votes are held to a certain degree in favour of the large member states. At the same time, though, the voting procedure was made more difficult; the qualified-majority threshold will increase in the course of the enlargement process. In addition, the determining of a qualified majority in the Council will depend, in future, on whether a majority of the member states approves, and, upon a country's motion, whether the decision represents at least 62 % of the population. Moreover, it must be noted that the transition from unanimous voting to qualified-majority voting in the Council, which will have a particularly strong bearing on the Union's future ability to take action, has been unsuccessful or only partially successful in areas such as taxes, social affairs, trade policy, structural funds, and justice and internal affairs, areas which are all of crucial importance to the process of further integration. It is envisaged that the number of EU commissioners will be limited, in stages, during the process of enlargement. From 2005, every member state will be able to nominate only one commissioner; the number of commissioners will have to be redefined by Council decision once the Union has increased in size to 27 members. In addition, the possibilities of enhanced cooperation among some of the member states were extended, and also facilitated by abolishing veto rights. On the whole, the outcome of the Nice summit fell well short of expectations. Hence the Union's capability for enlargement has only been partially realised.[1]

Enabling clause for adjusting the voting procedure in the ECB Governing Council

Institutional adjustments are also being envisaged with respect to the other Community bodies and institutions so as to enhance their efficiency and ability to take action in the light of EU enlargement. Of particular significance to the euro area is an enabling clause for a simplified amendment of Article 10 of the ESCB/ECB Statute, which regulates the voting procedure in the Governing Council of the ECB. The matter is to be decided unanimously by the Council of the EU, meeting in the composition of Heads of State or Government, and acting upon a recommendation from the ECB or the Commission. In addition, the new arrangement must be ratified by the member states. The procedure is to be simplified by making it no longer necessary for a formal IGC to be convened in order to redefine the voting modalities.

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1 For more information on and an assessment of the outcome of Nice, see also Deutsche Bundesbank, The outlook for the enlargement of the EU following the Nice European Council, Monthly Report, March 2001, pages 15 to 18.

(d) The status of the accession negotiations and the convergence process

Accession negotiations have made good progress

The negotiations between the EU and the 12 accession countries made good progress during the period under review. The negotiations are based on the criteria set by the Copenhagen European Council of 1993, which presuppose not only the fulfilment of political and economic conditions but also the adoption and implementation of the *acquis communautaire.* As the Commission stated in its strategy report of November 2000 on enlargement, the political conditions are currently being met by all accession countries with the exception of Turkey. On the other hand, according to this analysis, distinct differences exist between the various countries in the economic criteria – a functioning market economy and the ability to cope with competitive pressures in the Union – and in the adoption of Community law. The Commission plans to present a "road map" setting priorities and clear deadlines for the negotiations over the next 18 months in order to speed up the accession negotiations. The enlargement process was also given a boost by the statement on macroeconomic and financial stability in the accession countries presented by the ECOFIN council in November 2000 and endorsed by the Nice European Council. That statement envisages a regular dialogue with the accession countries which is intended to facilitate economic integration into the EU and subsequent participation in monetary union. In these envisaged periodical conferences, topics for discussion are to include the accession countries' pre-accession programmes initiated by the Commission as well as the macroeconomic situation and the state of the financial sector in those countries.

"Euroisation" not desired

A new member state of the EU would have to wait at least two years before being considered for membership of EMU. That is a consequence of the mandatory two-year membership of the European exchange rate mechanism ERM II prior to the necessary convergence assessment. A unilateral introduction of the euro by individual accession countries or new members would not be the same as joining monetary union. Incidentally, such "euroisation" by countries seeking to accede to the EU and monetary union would not be desirable from the Community's point of view, as was expressly stated by the ECOFIN council in November 2000 in a report it submitted to the European Council on the exchange-rate aspects of enlargement. The ECOFIN council held that the euro should be introduced only by way of accession to monetary union and the convergence process, which is to be demonstrated in the course of the accession process. The exchange rate of the national currency may play an important role as an adjustment instrument during the convergence process, yet it may also serve as a yardstick of success in adjustment. A currency board system is not a complete substi-

Economic fundamentals of the EU accession countries in the year 1999

Table 12

Country	GDP (€ billion)	Per-capita GDP (% of EU average 1)	Real GDP growth (from previous year in %) 2	General government budget balance (% of GDP)	Annual average consumer-price inflation (change from previous year in %)	Memo item Population (millions)
Bulgaria	11.6	22	– 1.7	– 1.0	2.6	8.3
Czech Republic	49.8	59	1.5	– 1.9	2.0	10.3
Cyprus	8.5	81	4.0	– 4.1	1.6	0.7
Estonia	4.8	36	4.5	– 4.7	4.6	1.4
Hungary	45.2	50	3.4	– 4.0	10.0	10.1
Latvia	5.9	27	3.0	– 2.8	2.4	2.4
Lithuania	10.0	29	3.2	– 8.6	0.8	3.7
Malta	3.4	.	4.5	– 8.5	2.1	0.4
Poland	146.0	37	5.8	– 3.5	7.2	38.7
Romania	31.9	27	– 0.7	– 3.4	45.8	22.5
Slovak Republic	18.5	49	5.0	– 3.4	10.6	5.4
Slovenia	18.7	71	4.2	– 0.6	6.1	2.0
Turkey 3	173.0	28	4.0	– 11.5	64.9	64.3
All accession countries excluding Turkey	354.3	37	3.6	– 3.3	9.9	105.9
Compare: EU-15	7,985.4	100	2.3	– 0.7	1.2	375.3

Sources: Eurostat, EU Commission and Bundesbank calculations. — **1** Calculated on the basis of purchasing power parities. — **2** Average of the period from 1995 through 1999. — **3** Turkey has acquired accession-country status, yet no date has been set for the commencement of negotiations on accession.

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tute for participation in ERM II, either. However, under certain conditions, such a regime, once the individual case has been carefully studied, might be accepted as a unilateral instrument for stabilising the exchange rate as part of ERM II.

Sustainable fulfilment of convergence criteria is key factor in successful accession to monetary union

It must be realistically assumed that hardly any accession candidate will meet all the conditions for participating successfully in monetary union once the minimum waiting period ends. In the accession countries, per-capita incomes are for the most part very low at present. The expected productivity increases, which will accelerate once those countries join the EU, therefore imply that the real exchange rates of the currencies in question are likely to appreciate. That may be reflected in rising nominal exchange rates of the national currency or in sharp increases in average prices. Hence freezing the nominal exchange rate soon thereafter would actually exacerbate price pressures. Under such conditions, early accession to monetary union would pose problems both for the country in question and with respect to the functioning of monetary union. In order to ensure that the convergence criteria are fulfilled in a sustainable fashion, progress in the integration of markets, the balance on current account, and the development of unit labour costs and other price indices are therefore to be given due consideration, too, in accordance with Article 121 of the EC Treaty. A comparison of the accession countries' income levels with average incomes in the EU in its present composition may provide evidence of the extent to which the potential for tension in a monetary union, which arises from catch-up processes, has gone down.

2. Strengthening the international monetary and financial system

(a) The debate on the tasks of the IMF and the World Bank

The Meltzer Commission's recommendations provide major "food for thought"

In the ongoing debate on strengthening the international monetary and financial system, a key issue is the future role of the International Monetary Fund (IMF) and the World Bank in a global economy which is being increasingly shaped by elements characterising a free market economy, which is becoming increasingly integrated and in which private capital flows are becoming ever more important. The report published in March 2000 by the "International Financial Institution Advisory Commission", established by the US Congress and chaired by Professor Allan Meltzer, has provided major "food for thought". The Commission does not advocate abolishing or merging the IMF and the World Bank. A majority within the Commission propose that the IMF should in future confine itself to short-term balance-of-payments assistance and that it should generally be more restrictive in its lending policy. The report suggests that only in exceptional crisis situations should the IMF act as a lender of last resort to intrinsically solvent countries under certain extremely strict conditions. Detailed conditionality is largely dispensed with in such a lending policy; however, the prospective borrower would have to meet a set of prequalifying criteria, such as the existence of open markets, transparency, a healthy financial sector and a sound fiscal position. The Commission recommends that the IMF stop all lending for poverty-reduction purposes and leave that task to the multilateral development banks, which are in turn expected to transform themselves from being significant lenders to becoming primarily a source of technical assistance. According to the report, financial assistance should be given only to the 80 to 90 poorest countries without access to the capital market, in most cases as grants. In the process, the World Bank's tasks should be shifted largely to the regional development banks.

Bundesbank's position partly confirmed by Meltzer Commission

From the Bundesbank's point of view, the Meltzer report is correct in calling on the IMF to concentrate on its monetary mandate and to shift the focus of the World Bank's work to its development mandate. Furthermore, it shares the Commission's view that the IMF should limit its lending and focus on short-term financial assistance. However, the Bundesbank is of the opinion that the Meltzer Commission's proposal that the IMF should use its financial resources to combat what are supposedly pure liquidity crises should be rejected. Such an approach could, in practice, easily be construed as no-cost insurance for debtors and creditors. In addition, the principle of attaching conditionality to IMF loans should not be relinquished, especially since past experience has always shown that economic policy mistakes are the most frequent causes of crises. Conditionality is justified in order to ensure that the borrowing countries make the necessary reforms, and thus to guarantee the repayment of IMF loans. However, the IMF should focus its conditionality on macroeconomically relevant issues and on structural factors that are directly linked to those issues. Overly detailed conditions imply the risk of overstretching the IMF's monetary mandate and of undermining the borrowing country's acceptance of the adjustment programme.

(b) Reform of IMF lending policy

Lending facilities streamlined

In 2000 the IMF reviewed its lending facilities with the aim of simplifying them, gearing them more towards crisis prevention, creating disincentives against unduly long and large borrowing, and improving the monitoring of borrowers once the lending programmes have ended. Following the abolition of four minor facilities which were hardly used, the IMF's arsenal of instruments is now made up of five regular sources of credit and one facility for extending loans on concessional terms. In future, moreover, early repayments will be increasingly expected. This expectation assumes relevance if a borrower's balance of payments develops better than originally forecast. In such cases, the repayment period is moved up; for stand-by loans, the IMF's standard instrument, for instance, this period would be moved up by one year (from 3 ¼ to 5 years to 2 ¼ to 4 years). Furthermore, for those drawings in the credit tranches and under the Extended Fund Facility (EFF) where the volume of outstanding IMF credits

IMF credit facilities following the reforms adopted in 2000 Table 13

Facility	Access limits as % of the member country's quota	Repayment period (years)	Purpose	Loans outstanding at end of 2000 (SDR billion)
Stand-By Arrangement (SBA) [1]	100 % annually 300 % cumulatively	2 ¼ to 4 (expected)	To provide short-term balance-of-payments assistance	[2] 21.3
Extended Fund Facility (EFF)		4 ½ to 7 (expected)	To finance a long-term balance-of-payments need which is based mainly on structural problems	15.7
Supplemental Reserve Facility (SRF) [3]	No defined access limits	1 to 1½ (expected)	To finance an extreme balance-of-payments need, particularly to ward off threats to the international monetary systems	(1.7)
Contingent Credit Line (CCL)	Expected to be in the range of 300 % to 500 % but no strictly defined access limit	1 to 1½ (expected)	To finance a balance-of-payments need in countries with "sound" economic policies, triggered by contagion	[4] –
Compensatory Financing Facility (CFF)	From 10 % to a maximum of 55 %, not counted towards the SBA/EFF access limits	2 ¼ to 4 (expected)	To provide compensatory financing for export shortfalls or excesses in cereal import costs	3.0
Poverty Reduction and Growth Facility (PRGF) [5]	From 140 % to a maximum of 185 %, irrespective of other IMF loans	5 ½ to 10	Financial support on "lenient" terms for low-income countries beset with intractable structural balance-of-payments problems	5.8

Source: IMF. — **1** As a special policy within the framework of the SBA, in the event of natural disasters and at the end of serious conflicts, there is the option of obtaining emergency assistance with facilitated repayment terms. — **2** Including SRF loans totalling SDR 1.7 billion. — **3** SFR loans are granted under the SBA or EFF. — **4** No credit line has been agreed so far. The CCL is due to expire in November 2003. — **5** Unlike the other facilities listed in this table, the PRGF is financed not from the IMF's general resources but from special IMF resources and bilateral contributions.

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surpasses certain thresholds (200 % and 300 % of the IMF quota, respectively), surcharges of 100 and 200 basis points, respectively, were introduced. The idea is to discourage excessive use of the Fund's general resources. Finally, in future there will be increased post-programme monitoring of borrowers in cases where use of the Fund's general resources exceeds 100 % of the quota or where there are other important reasons for such monitoring.

Not all flaws eradicated

The Bundesbank welcomes these reforms as important steps towards maintaining the revolving character of IMF resources. However, it remains to be seen whether applying surcharges is a sufficiently effective instrument to prevent excessive use of IMF resources. At any rate, it is important that normal access limits be adhered to more strictly than has been the case so far. Access above normal limits should be allowed only under exceptional circumstances, and then only to a very limited extent. Also, continuing the longer-term EFF to finance structural adjustment is not without its problems. It is true that such adjustments are capable of promoting balance-of-payments stability and crisis prevention, and are thus in the interest of the IMF, as far as they go. However, structural adjustment financing is mainly the responsibility of development banks. Such IMF financial assistance is therefore justified only in those cases where it is directly targeted at reinforcing the structural and institutional basis for lasting access to the capital market.

Facilitated access to the CCL

The Contingent Credit Line (CCL) has been modified in a manner intended by proponents of these changes to make this hitherto unused facility more attractive. The interest rate surcharge has been reduced to a range of between 150 and a maximum of 350 basis points, making it 150 basis points less than the surcharge on drawings under the Supplemental Reserve Facility (SRF). The commitment fee was also reduced. With regard to the disbursement of a first CCL tranche, it was agreed that, once the conditions for activating the facility are met, up to one-third of the total credit commitment may be released. In addition, the sunset clause on the facility was extended to November 2003.

Bundesbank still considers CCL unnecessary

The Bundesbank continues to take a relatively dim view of the CCL. In a market economy in which priority must be given to individual responsibility for crisis prevention, and where the markets' capacity to function is improved by enhancing transparency, special facilities for intrinsically sound countries should be expendable. Experience has generally shown that healthy countries do not need international financial assistance, whereas those countries that request assistance usually have a strong need for economic policy adjustment. The reduction in the cost of using the CCL, the relatively wide margin for the first CCL tranche and its virtually automatic disbursement are all sending the wrong signals. Against that background, it is especially important that the economic programme which a CCL user must present to the IMF be sound and that its compliance be carefully monitored by the IMF. And it must be ensured at all times that the CCL, in accordance with its objectives, is used only to prevent those contagion effects which are beyond the control of the CCL user.

In conjunction with the reform of its facilities, the IMF increased its precautions designed to make it more difficult for borrowers to submit inaccurate informa-

Precautions against unauthorised use or misuse of loans

tion or to misuse funds. Even if such incidents have only been sporadic so far, they are still a serious problem for the IMF because they put a strain on the IMF's relations with the member in question and damage the Fund's reputation. Measures taken to combat such problems include imposing stiffer sanctions and extending the statute of limitations for misreporting. In addition, such incidents should as a rule be published. Improvements in the internal operating procedures of the IMF, especially by intensifying the exchange of information, are likewise to be made with a view to detecting misreporting. In order to prevent any misuse of IMF financial resources, in future the Fund is entitled to employ special measures in order to monitor the internal operating procedures and regulations of borrowing countries' central banks.

Revaluation of the SDR

In 2000, as part of a regular review, the special drawing right (SDR), on which all IMF transactions are based, was revalued, especially owing to the introduction of the euro; this revaluation entered into effect at the beginning of January 2001. Since then, the SDR has comprised the US dollar, the euro, the Japanese yen and the pound sterling, i.e. those freely usable currencies whose issuers are the largest four economies in the world in terms of global export volume. The starting weight of the currencies in the currency basket is based both on those countries' exports and on the extent to which reserve assets are held in those currencies. The weight of the euro in the SDR currency basket was 29 % at the beginning of January 2001, compared with 45 % for the US dollar. The former German and French interest-rate instruments were replaced in the SDR interest-rate basket by a single euro-area interest rate, the three-month EURIBOR.

(c) Fundamental aspects of involving the private sector in crisis resolution

No getting around the principle of private sector involvement

For international capital markets to function well in the long run, lenders and investors must not only reap the gains of their decisions but also shoulder the losses caused by unfavourable developments. Violating this principle by having the IMF and other international institutions inject massive financial aid at times of crisis inevitably biases investment decisions towards risky investments. Such behaviour, also termed "moral hazard", contributes to emerging economies being overwhelmed by debt and thus to a misallocation of investable funds. Moreover, in the borrowing countries, moral hazard also undermines willingness to reform.

There is a consensus within the official international community that there is no getting around private sector involvement in crisis resolution where a country is

International agreement on private sector involvement in debt rescheduling

unable to meet its debt-servicing obligations or to do so completely by its own exertions, and in cases where debts owed to the private sector play an important role. The desired objective is for the necessary debt rescheduling to be accomplished voluntarily where possible. However, the official community can ultimately force private creditors to take part in crisis resolution by curtailing its financial aid. Therefore, debtor countries and private creditors have a considerable incentive to reach an amicable settlement.

Principle of equal treatment for all creditors

The G-7, the G-20 and the IMF have published principles for coping with such debt-rescheduling cases in future. Basically, these principles state that bilateral public donors and private creditors must be treated equally and that no category of private creditors should be allowed to enjoy special privileges. This agreement mainly affects bond holders, who for a long time were led to believe that their claims had a sort of preferential status. The major significance that bond markets now have for developing countries' capital imports has made this change in policy inevitable. Accordingly, bond holders have actually been involved in the resolution of some recent crises. The inclusion of bond holders does not depend on whether the bond terms contain collective-action clauses or not. Yet such contractual clauses may prove to be of advantage in crises, since they already set rules governing the representation of the bond holders and the necessary coordination. The fear that bonds with collective-action clauses could entail higher interest rates for the issuers has not yet been borne out by the bonds issued thus far. Hence emerging economies would be well-advised to provide all their new international issues with such clauses. Unfortunately, so far there has been no visible progress in this direction.

Private sector involvement should become the rule for all types of debt crises

In the ongoing international debates, the Bundesbank has advocated envisaging regular private sector involvement in all types of debt crises where private sector assets are at stake. It would be very difficult, in practice, to make an a priori distinction between liquidity problems and solvency problems with the intention of providing ample official financial assistance only to assist countries facing problems which are considered temporary. Since experience has shown that "liquidity problems" occur at the beginning of every crisis, this would ultimately leave the door wide open to large financial-aid packages. In order to nip this practice in the bud, it is essential to strictly limit access to IMF resources. It is imperative that exceptionally large recourse to IMF lending be limited to those rare cases where the absence of such assistance would very likely lead to systemic risk. In addition, precautions should always be taken in such extreme circumstances to ensure that exceptional financial assistance does not facilitate outflows of capital. If the worst comes to the worst, one must not rule out the possibility of imposing a temporary moratorium in any serious crisis situations since otherwise debtors and creditors would have less incentive to reach a voluntary solution.

(d) Steps to improve crisis prevention

Concerted strategy on the part of international organisations and bodies

As a consequence of the international debt crises that have been occurring repeatedly since the mid-nineties, the official community launched a broadly-based initiative to strengthen the international monetary and financial system. The overarching objective is to stabilise the increased inflow of private capital into the more advanced developing countries. Those countries need not only macroeconomic stabilisation but also measures to strengthen their own financial sectors; fragile banking systems, in particular, often exacerbate crises or even cause them to occur in the first place. In ensuring the greatest possible degree of transparency for international capital markets, the availability of reliable and real-time macroeconomic data and information on the state of a country's financial sector are highly important. This is the only way in which markets can accurately assess risks and thus exercise discipline. By creating the Financial Stability Forum and the G-20 in 1999, the official international community established two new mechanisms with which to reveal shortcomings in the international monetary and financial system at an early stage, to put forward proposals for their eradication, and to intensify the dialogue on necessary reforms with the most significant emerging economies. The IMF and the World Bank are represented on both bodies and play a key role in the implementation of preventive measures at the global level.

Reorientation of exchange-rate policy towards greater flexibility

A particularly important element in strengthening a country's resistance to external strains is choosing an exchange-rate regime that is consistent with that country's situation. Experience over the past few years has shown that fixed exchange rates may render countries whose capital markets are opening up more crisis-prone. It is true that, in many cases, pegging one's currency to a key currency has proved effective in curbing inflation, with risk premiums for foreign borrowing generally being reduced to boot. However, pegged exchange rates increase the risk of the national currency being overvalued. Moreover, fixed rates entail the risk of excessive foreign-currency debt, since under such conditions cheaper foreign loans are often not hedged against exchange-rate losses. That ultimately heightens the risk of a crisis. Then, if a crisis ensues and the exchange rate cannot be defended, the economic damage is even more severe. As a consequence of the most recent crises, there has been a growing trend towards choosing flexible exchange-rate regimes, in line with international recommendations. The other extreme is made up of a small but likewise growing number of countries deciding to strengthen existing exchange-rate links, even going as far as a currency board (the extremest case being the unilateral adoption of one of the major currencies). Such institutionally guaranteed fixed-rate systems may, under certain circumstances, enhance the credibility of stability-oriented economic policy. Interim solutions along the lines of adjustable exchange-rate bands seem to be appropriate and sustainable, particularly in cases where the country in question is involved in a process of regional integration.

Institutionalised methods of implementing international standards and codes

Increased observance of internationally approved standards and codes that serve to enhance the transparency of markets and the strengthening of their infrastructure is of major importance in crisis prevention. In 2000 the Financial Stability Forum identified twelve such standards and codes meriting priority implementation by all countries. These involve the timely publication of macroeconomic data, the provision of information on monetary, fiscal and financial market policy, the supervision and regulation of financial intermediaries, and other important principles of corporate governance, accounting, auditing and insolvency legislation which are necessary for markets to function. A number of institutions and bodies are responsible for defining the individual standards and codes. The IMF and World Bank play a leading role in the implementation of such rules because the comprehensive strengthening of financial systems in their member countries is one of their core tasks. The jointly developed Financial Sector Assessment Program (FSAP), which – following completion of the current pilot phase – will be drafted every year on a voluntary basis for between 24 and 30 member countries, are an important instrument to this end. In those programmes, an internationally uniform method is used to warn each country of vulnerabilities in its financial sector and to set development priorities in cooperation with the authorities. The IMF then uses the results of an FSAP to evaluate the stability of the financial sector in question (Financial Sector Stability Assessment, or FSSA), also addressing the risks to the macro economy associated with the state of the financial system. Moreover, the Fund monitors compliance with international standards and codes in special Reports on the Observance of Standards and Codes, or ROSCs. The intention is, where possible, to publish the results of the FSSAs and ROSCs in order to enhance transparency.

(e) Review of the IMF quota formula

Simplification, and adjustment to changes in the world economy, are being striven for

In the debate on reform, many are considering how member countries' quotas, which are a key factor in determining the amount of financing contributions, financial assistance and voting rights, can be brought into line with the changed conditions in the world economy. The aim is to modify the quota formula before the next general quota review (planned for 2003). The planned steps include a simplification of the quota formula and taking better account of individual countries' weight in the world economy, with particular attention needing to be paid to the strong growth of capital flows. In May 2000 a group of eight independent experts (including one German) commissioned by the IMF and headed by Professor Richard Cooper presented a report (now published) recommending a radical simplification of the quota formula and discussing its potential variables. How the degree of integration of member countries into the world economy may be better reflected in the quota formula is one of several issues requiring further discussion. The Bundesbank is of the opinion that a country's vulnerability to crises should not be reflected in a quota increase, since that would reward bad economic policy. The Bundesbank also thinks that population indicators should not be included in the quota formula.

Ad hoc increase in China's quota

Quota increases for individual countries in cases where the country's situation has changed substantially are to be viewed separately from the policy debate on the quota formula. A case in point is China, which applied for an ad hoc quota increase following the return of Hong Kong. Upon this application, China's quota share in the Fund was raised from 2.2 % to 3 % in March 2001. This puts China level with Canada in eighth place in the Fund. Owing to the increase in China's quota and to Yugoslavia's accession to the Fund in December 2000, Germany's quota share fell slightly, from 6.19 % to 6.12 %.

3. International financial assistance

Outstanding IMF loans on the decline

The IMF's outstanding credit went down to SDR 49 billion (US$ 64 billion) in December 2000 after having hit an all-time high of SDR 67 billion (US$ 94 billion) two years earlier as a result of the financial crises at that time. The continued large repayments of crisis assistance credits granted in 1997 and 1998 were the main reason for the further decline in outstanding credit. In addition, recourse to IMF financial assistance in 2000 remained a bit below the previous year's level, on the whole, despite relatively sizeable disbursements to Argentina and Turkey. Another reason for the slight decrease in disbursements from the Poverty Reduction and Growth Facility is that borrowing countries have taken insufficient steps towards reform.

Considerable private sector involvement in financial assistance for Argentina and Turkey

Once again, the IMF responded to the debt crises which broke out at the end of 2000 in Argentina and Turkey by providing massive financial assistance. The IMF approved additional credit for Argentina totalling US$ 6.8 billion on top of its already outstanding commitments; this raised its total lending commitments to Argentina to US$ 13.7 billion, or 500 % of the quota. In addition, financial assistance was also provided by the World Bank (US$ 2.7 billion), the Inter-American Development Bank (US$ 2.9 billion) and Spain (US$ 1 billion), causing total official aid to Argentina to add up to US$ 19.7 billion. This aid, however, was conditional on the private sector committing itself to grant loans, too, which, by prolonging bank loans that had reached maturity (US$ 13 billion) and by rescheduling bonds and coupon liabilities (US$ 7 billion), helped to stabilise the balance of payments. The IMF provided Turkey with US$ 7.5 billion worth of financial assistance, raising its total lending commitments to Turkey to around US$ 11 billion, or 900 % of the Turkish quota. The World Bank made another US$ 0.8 billion available. In the case of Turkey, the Fund expects the crisis of confidence to be resolved relatively quickly. Therefore, the private sector involvement in crisis management demanded by the IMF consisted in rolling over a sizeable amount of short-term interbank liabilities, with foreign banks' interbank loans receiving a government guarantee. The Bundesbank, in view of its call for private sector involvement in all debt crises in which private lending plays a key role, considers the official community's reaction to the crises in Argentina and Turkey to be a step in the right direction. It is true that both countries were given massive assistance in financing their high current account deficits, but the financing of capital outflows was largely prevented. That owes something to the fact that some of the official IMF financial assistance which was made available can, as is usually the case, only be disbursed in line with progress in adjustment (the Argentine programme lasts until 2003, the Turkish programme until 2002). IMF assistance in financing current account deficits should likewise exceed the regular borrowing limits only in rare exceptional cases. Criticism of the amount of balance-of-payments assistance granted to Argentina and Turkey would not be completely unwarranted.

Steep drop in new lending by most development banks

The World Bank's lending commitment in fiscal 2000 (July 1999 to June 2000) dropped by nearly one-half (to around US$ 15 billion) compared with their record level of just under US$ 29 billion in the previous fiscal year. This is mainly due to the resolution of the preceding financial crises. Another reason was that

Purchases, repurchases and total credit outstanding under IMF facilities Table 14

SDR billion

Item	1996	1997	1998	1999	2000
Purchases					
Credit tranches 1	2.5	13.3	12.1	7.5	5.9
Extended Fund Facility (EFF) 1	2.6	2.7	6.3	1.8	1.3
Compensatory Financing Facility (CFF) 2	0.2	0.1	2.2	0.7	0.0
Poverty Reduction and Growth Facility (PRGF) 3	0.7	0.7	0.9	0.7	0.5
Total purchases	6.0	16.8	21.5	10.7	7.7
Repurchases	5.6	6.3	7.3	20.0	15.8
Net purchases	0.4	10.5	14.2	– 9.3	– 8.2
Total IMF credit outstanding 4	42.1	52.6	66.8	57.5	49.3
of which 5					
Europe	13.9	15.7	19.6	17.4	16.7
Asia	3.7	15.5	24.2	17.9	18.6
Latin America	16.6	13.8	15.6	14.9	6.8
Africa	7.5	7.1	6.8	6.6	6.5

Source: IMF. — **1** Including purchases under the Supplemental Reserve Facility (SRF). — **2** Formerly the Compensatory and Contingency Financing Facility (CCFF). — **3** The PRGF was formerly the Enhanced Structural Adjustment Facility (ESAF); this item also includes the former Structural Adjustment Facility (SAF). The SAF, ESAF and PRGF were/are financed out of special assets administered by the Fund and by bilateral donations. — **4** Level as at the end of the year. — **5** Delineation of regions according to IMF definitions; Europe also includes the countries of the former Soviet Union.

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there was a trend towards giving greater support to smaller operations involving the building of institutions or the development of human capital, at the expense of major infrastructure projects. The Inter-American Development Bank witnessed a similar trend. However, the annual commitment of the European Bank for Reconstruction and Development (EBRD) went up by 24 % against the previous year to € 2.7 billion. With the highest annual commitment level since it was established in 1991, the EBRD seems to have quickly overcome the implications of the Russian crisis for its portfolio. In the light of the increase observed during the nineties in the volume of private sector funds flowing to the developing countries, the decline in the development banks' aggregate lending commitments is generally welcome.

Further progress in the implementation of the HIPC initiative

In 2000 further progress was made in implementing the "Heavily Indebted Poor Countries" (HIPC) initiative. The IMF and World Bank worked especially hard to achieve the goal, reaffirmed at their most recent Annual Meeting, of helping 20 HIPC countries reach the so-called decision point (where the amount of assistance to be committed is determined in binding fashion) by the end of 2000. In fact, by the end of 2000 as many as 22 countries (including 18 from Africa) had reached the decision point. The total assistance committed to those countries amounts to US$ 34 billion. Along with the debt relief granted within the Paris Club framework and bilateral debt relief, this debt-reduction assistance for those countries could total as much as two-thirds of their liabilities. However, there is no overlooking the fact that the accelerated pace at which the debt initiative is being implemented is not always in line with the development of convincing poverty-reduction strategies. Instead, in a first step, the IMF and World Bank are willing to settle for interim Poverty Reduction Strategy Papers (I-PRSPs) which only brush upon the most important poverty-reduction measures. In some cases, complete PRSPs are only published after a delay of one or even several years. The Bundesbank believes that more attention should be paid to how the financial resources set free by debt relief are used. It is unsettling to note that public expenditure is soundly managed in only a few of the countries benefiting from the HIPC initiative. To ensure that the ability to repay debt continues to exist in the medium and long term, not only should indicators of indebtedness be systematically monitored in future, but steps should also be taken to launch sustainable growth in those countries. That is the only way to fight poverty and to avoid a repetition of debt crises.

Operations of the Deutsche Bundesbank

I. Processing cash payments and cashless payments

1. Cash payments

Banknotes and coins in circulation

The value of banknotes in circulation at December 31, 2000, at DM 262.1 billion, was DM 12.0 billion, or 4.4 %, lower than at the end of 1999. By contrast, the value of coins in circulation rose by 1.4 %. At the end of 2000, 94.2 % of all currency in circulation consisted of banknotes, and 5.8 % of coins.

Currency in circulation and its pattern

Table 15

Trends over time

DM million

End of	Currency in circulation	Banknotes in circulation	Coins in circulation
1996	275,744	260,390	15,353
1997	276,242	260,686	15,556
1998	270,981	255,335	15,646
1999	289,972	274,133	15,839
2000	278,143	262,089	16,054

Pattern at the end of 2000

Banknotes in circulation			Coins in circulation		
Notes of DM	DM million	Percentage of total	Coins of DM	DM million	Percentage of total
1,000	89,216	34.1	10.00	2,708	16.9
500	26,556	10.1	5.00	5,721	35.6
200	7,140	2.7	2.00	2,403	15.0
100	101,774	38.8	1.00	2,329	14.5
50	21,762	8.3	0.50	1,156	7.2
20	9,668	3.7	0.10	1,087	6.8
10	5,676	2.2	0.05	331	2.1
5	297	0.1	0.02	152	0.9
			0.01	167	1.0
Total	262,089	100.0	Total	16,054	100.0

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At the end of the period under review approximately 2.74 billion notes were in circulation. The 2.3 % year-on-year decline in circulation is likely to have been mainly due to the precautionary measures taken by the general public and the business community in connection with the "year 2000 problem".

Destruction of banknotes

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

	1996	1997	1998	1999	2000
Number (million)	659	1,466	1,475	795	782
Value (DM billion)	27.7	118.9	96.2	43.0	85.1

In view of the fact that euro banknotes and coins are to be introduced on January 1, 2002, a start was made with reducing reserve holdings of high denominations last year. This led to a sharp rise in the number of DM 500 and DM 1,000 notes that were destroyed. At the same time, fewer DM 10 and DM 20 notes were destroyed. This is the reason for the volume of destroyed notes showing a large increase in value along with a slight fall in number.

Coins

The stock of German coins held by the Bank at the end of 2000 amounted to DM 1,514 million (end-1999: DM 1,704 million); the stock thus amounted to 9.4 % of the total coins in circulation. In 2000, about DM 170 million was credited to the Federal Government in respect of coins received from the mints and about DM 145 million was debited to it in respect of coins no longer fit for circulation. Between 1948 and 2000 the Bank – acting for the account of the Federal Government – received coins amounting to DM 20,163 million and redeemed coins which were no longer fit for circulation or which had been called in, equivalent to DM 2,595 million. At the end of 2000, coins totalling DM 16,054 million were in circulation, equivalent (given 82 million inhabitants) to around DM 196 per head of the population.

Counterfeits

The number of counterfeit banknotes detained in payments and appraised by the Bundesbank was slightly down on the previous year; there was a significant decrease in counterfeit coins.

Counterfeits detained in payments, as recorded by the Bundesbank — Table 16

	Banknotes		Coins	
Year	Number	DM thousand	Number	DM thousand
1996	25,769	3,839	35,352	169
1997	33,873	3,933	14,983	67
1998	36,139	4,129	19,990	98
1999	22,532	2,316	26,813	132
2000	20,702	2,428	20,365	100

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The improved protection introduced in 1997-98 for the DM 50, DM 100 and DM 200 notes has led to a shift in counterfeiting to the denominations lacking the new security features. Counterfeit DM 5 coins accounted for 98 % of all coin counterfeits.

2. Cashless payments

Slight rise in submitted payments

The number of domestic and cross-border payments made through the Bank in 2000 showed a slight rise on the year. Overall, around 2.3 billion transfer and collection orders to the value of € 96,979 billion were submitted, signifying a 2.4 % increase in the number of items processed and an 8.2 % rise in the total value.

Possibility of submitting retail payments by data telecommunication with extended times of submission

In contrast to the large-value payment systems ELS (Euro Link System) and EAF (Euro Access Frankfurt), it was not previously possible to submit retail payments by data telecommunication. For placing orders electronically, it was, in fact, only possible to use data media that had to be submitted to the branch offices or direct to the computer centres. Since March 17, 2000 the Bank has been providing an extended range of its services and now offers submission and delivery of payments by data telecommunication. To enhance the attractiveness of this form of data transfer, at the start of 2001 the Bank complied with the banking industry's wish for longer submission times by extending the periods for data telecommunication acceptance. Since then, Prior 3 payments (transfers) and collection orders have been accepted until 8 p.m. and 9 p.m., respectively. Data media, on the other hand, may still be submitted only until 6.30 p.m. at the latest.

Providing electronic account information

Since the middle of the reporting year, account holders who possess data telecommunication access have been able to participate in a new electronic service. "Electronic Account Information" means that they can request information on turnover and balances during the day. On the morning of the next business day these account holders are automatically provided with an electronic statement of account for the previous day in addition to the statement in paper form.

End of local clearing of collection papers

The last four local clearing houses maintained at the branch offices were closed at the end of March 2000. This signified the end of an almost 120 year-old central bank tradition (first clearing houses in 1883) of netting credit institutions' assets and liabilities at Bundesbank branch offices. Owing to the credit transfers

The Bank's cashless payments

Table 17

Item	1999 Number (million)	1999 € billion	2000 Number (million)	2000 Change in %	2000 € billion	2000 Change in %
Retail payments						
Paperless settlement (RPS) 1						
Direct debits, cheques	1,398.0	1,508	1,416.4	1.3	1,466	– 2.8
of which: Conversions	59.2	970	51.6	– 12.8	918	– 5.4
Prior 3 payments	778.2	733	810.2	4.1	779	6.2
of which: Conversions	1.8	8	1.7	– 6.7	11	28.4
Total	2,176.2	2,241	2,226.6	2.3	2,245	0.1
MASSE (cross-border)	4.7	2	4.9	5.3	2	6.7
Grand total	2,180.9	2,243	2,231.5	2.3	2,247	0.2
Large-value payments						
Gross settlement procedures						
ELS	16.0	22,375	17.8	11.2	24,001	7.3
TARGET (cross-border)	2.7	24,571	3.7	38.5	28,294	15.2
AZV (cross-border)	0.2	145	0.2	11.7	125	– 13.3
Other 2	0.4	1,255	0.2	– 50.6	790	– 37.1
Total	19.2	48,346	21.9	13.8	53,211	10.1
Net settlement procedures (Daily local clearing system)						
Collection items 3 (conventional)	0.0	0	0.0	.	0	.
EAF	12.1	39,041	13.0	7.4	41,522	6.4
Total	12.1	39,041	13.0	7.4	41,522	6.4
Grand total	31.3	87,387	34.9	11.3	94,733	8.4
Cashless payments	2,212.3	89,630	2,266.4	2.4	96,979	8.2

1 Including payments submitted in paper-based form which were converted and passed on in a paperless form by the Bundesbank's units. — **2** For example, special procedures for public authorities. — **3** Settled delivery envelopes (clearing items).

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being processed in completely paperless form, conventional clearing of transfers had already been discontinued in 1997.

Rising number of items submitted ...

In the year under review, greater use was made of almost all the Bank's domestic and cross-border payment procedures:

... in the Euro Link System (ELS)

For the settlement of domestic large-value payments, increasing use was made of the real-time gross system, Euro Link System (ELS). Differing priorities can be set when placing orders in ELS. Prior 1 payments are executed individually and in real time, whereas Prior 2 payments are settled in batch mode. Prior 1 and

Prior 2 payments are executed on a same-day basis. In the case of Prior 2 payments, however, settlement on a same-day basis is ensured only if the payment orders can be submitted by data telecommunication and sent out electronically to the receiving bank, and are covered by 4.30 p.m. In the year under review, around 7 million Prior 1 payments (+ 11.3 %) and 11 million Prior 2 payments (+ 11.2 %) were processed. Of the total of almost 18 million ELS orders, roughly 15 million were placed by data telecommunication and 0.4 million on diskette.

... in Euro Access Frankfurt (EAF)

An increasing number of items were also submitted in Euro Access Frankfurt (EAF), although EAF failed to equal its former position in national and international payments. The number of items processed was more than 40 % down on the level in 1998, when EAF still enjoyed a foreign exchange settlement "home advantage" in Deutsche Mark and US dollar. In the year under review as well, foreign banks made more intensive use of other payment systems for passing on their large-value payments in euro to German credit institutions and for settling them with those institutions.

... via the German TARGET component

These cross-border payment systems, of which greater use was made especially by German institutions, include the EU-wide real-time gross system TARGET. (This system as well the number and the value of the items processed in it during the year under review is discussed in greater detail below.)

... in the Bank's other cross-border procedures

The Bank's other two cross-border payment systems were also used more intensively in 2000. This applies to both MASSE (settlement of retail credit transfers for public authorities) and the AZV (foreign payments) procedure for the settlement of individual and large-value cross-border payments. Unlike TARGET, the AZV procedure is able to reach banks outside the EU as well.

Advances in the RTGS^{plus} project

In close contact with the banking industry, the Bank has continued to press ahead with work in preparation for the introduction of the new liquidity-saving euro-area individual payment system RTGS^{plus}. The new system will utilise and integrate the advantages of the existing large-value payment procedures ELS (real-time processing and access to the EU-wide TARGET system) and EAF (liquidity-saving settlement). The new system will commence operation on September 3, 2001.

3. Notable developments in domestic and cross-border payments

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

TARGET: euro-area large-value settlement system with the highest turnover

The TARGET (Trans-European Automated Real-Time Gross Settlement Express Transfer) system comprises the 15 national real-time gross settlement (RTGS) systems of the EU members states and the ECB Payment Mechanism. In the year under review, it was able to build on its position as the euro-area large-value settlement system with the highest turnover. Around 40,000 payments amounting to € 430 billion were processed on a daily average in 2000. An average of more than one-third of all orders (14,500 payments) and one-quarter of the total amount (€ 111 billion) were submitted by Germany for passing on to other countries. German banks accounted for slightly more than one-quarter of all payments in terms of the number of items received. German credit institutions are thus involved – either ordering or receiving – in two out of every three cross-border TARGET payments.

First TARGET upgrade

Since TARGET started operation in 1999, it has been possible to submit payments in the SWIFT message types MT 100 (TARGET customer transfers) and MT 202 (TARGET bank transfers in favour of a third bank). As part of the first TARGET upgrade, another message type for customer payments – MT 103 – was authorised on November 20, 2000. This is scheduled to replace the message type MT 100 in 2003. The new message type gives TARGET participants significantly more possibilities for providing important information to the recipient.

TARGET holidays ...

Before the system started, it was agreed that, apart from Saturdays and Sundays, the only days on which TARGET should not operate would be the two public holidays which are common to all the EU countries (New Year and Christmas Day).

... in 2000

In view of the financial and social cost resulting from the operation of the TARGET system on days that are traditionally (bank) holidays in the majority of the EU countries, and by virtue of a request in this matter by the European banking industry, the number of TARGET holidays was increased from two to six for the year 2000 (additionally, Good Friday, Easter Monday, May 1 and December 26).

... in 2001

The Governing Council of the ECB has confirmed the six TARGET holidays for 2001 as well. Furthermore, it has decided that TARGET, including all the national real-time gross settlement systems, will be closed on December 31, 2001. This closure on the last day of the year is intended to allow the retail payment systems and in-house bank procedures to effect a smooth changeover to the euro. This, however, does not necessarily imply that December 31, 2001 will be a bank holiday.

... from 2002

On December 14, 2000, the Governing Council of the ECB adopted a long-term calendar for the business-free days of the TARGET system. From 2002 the TARGET system is scheduled to remain closed, in addition to Saturdays and Sundays, on the six TARGET holidays (New Year, Good Friday, Easter Monday, May 1, Christmas Day and December 26). TARGET holidays are also non-settlement days for the money market and foreign exchange transactions in euro. On those days, the entire TARGET system, including all the national real-time gross settlement (RTGS) systems, will remain closed. This means that there is no longer the earlier (exceptional) possibility of keeping national systems open for the settlement of purely domestic payments if there is no "official" holiday in the country in question. Closing the entire TARGET system was felt to be desirable in order to prevent problems arising from the existence of different national TARGET business days. This also complied, in particular, with the wishes of the banking industry.

TARGET reimbursement scheme

In 2000, the Governing Council of the ECB adopted a uniform reimbursement scheme for TARGET transfers which are not executed on the same day. This scheme was introduced on January 1, 2001; under certain conditions the central banks offer compensation to the credit institutions if a technical disruption to the TARGET system has meant that it is not possible to execute a TARGET payment on the same day.

Credit institutions' requirements and considerations of efficiency ...

In the year under review, the TARGET system has demonstrated its value as a rapid, secure and fundamentally reliable system for the settlement of cross-border large-value euro payments. Even so, market participants perceive a need for further improvement in the availability of the system as a whole. Furthermore, harmonising the differing performance features of the national RTGS systems at as high a level as possible is felt to be desirable. In particular, uniform interfaces with the national RTGS systems based on SWIFT standards as well as improved liquidity management procedures are regarded as expedient. The central banks, too, definitely perceive possibilities of enhancing procedural and cost efficiency.

... form part of the debate on future TARGET strategy

These aspects form part of the debate on a longer-term TARGET strategy in the relevant bodies of the ESCB. There are basically two alternatives under discussion. One of these involves keeping decentralised, albeit harmonised RTGS systems with a centralised information base using new SWIFT services. The more far-reaching approach envisages the provision of a technically centralised platform for domestic and cross-border payments with a central information system. In the centralised model, the range of services provided and prices would be identical. The question of future EU accession countries being linked to TARGET is also an important factor in the debate at the European level. Any decision on a forward-looking solution still requires detailed studies of the alternatives under discussion.

(b) Electronic money

Uniform prudential and legal framework in the EU

Following the conclusion of the EU legislative procedure concerning e-money, the Directive amending the First Banking Co-ordination Directive as well as the Directive on the taking up, pursuit of and prudential supervision of the business of electronic money institutions (E-money Directive) were published on October 27, 2000. These directives have created a harmonised prudential framework for all the issuers of e-money in the European Economic Area which have previously been issuing e-money as non-bank enterprises in other countries. The directives are currently being translated into national law in Germany. The amendment of the First Banking Co-ordination Directive has ensured the status of e-money institutions as credit institutions under European law, and the E-money Directive has created a harmonised legal framework for the prudential supervision of e-money institutions. This means that issuers of electronic money – subject to timely translation into national law by the end of April 2002 – will be under ongoing supervision, thereby ensuring the integrity and cautious management of the e-money issuers as well as the security and efficiency of the systems. Furthermore, the legal obligation to convert e-money into central bank money will safeguard the close link between e-money and central bank money and, by extension, money's function as a unit of account.

Use of e-money in Germany has yet to "take off"

E-money has still not "taken off" despite its obvious advantages as a means of payment, especially at shop counters and when using money-operated machines. The immediate future will reveal how far the market potential of electronic money will be better utilised or extended as a result of the changeover to the euro in the field of automatic vending machines, additional chipcard applications (such as electronic tickets or the storage of bonus and discount points), the planned cross-border use of electronic purses, or the envisaged use of prepaid cards as a means of payment in e-commerce on the Internet.

(c) Activities at the G-10 level

Foreign exchange settlement risks

The Committee on Payment and Settlement Systems of the Group of Ten Countries (CPSS) at the Bank for International Settlements (BIS) has continued its work on foreign exchange settlement risks. At present, a working group is focusing a great deal of attention on the CLS (Continuous Linked Settlement) project, a concept of a global continuous linked settlement system to settle payments arising from foreign exchange trades. CLS Bank International, which is based in New York and is an entirely owned subsidiary of the holding company CLS Services Ltd. in London, intends to put the system into operation at the end of October 2001. The aim is to remove the settlement risk in foreign exchange transactions by simultaneously settling the two currency legs of a forex trade (payment versus payment principle). When introduced, settlement will be in seven currencies (Australian dollar, Canadian dollar, euro, Japanese yen, pound sterling, Swiss Franc and US dollar). Settlement will then be progressively extended to other currencies.

Retail payment systems

In September 2000, the CPSS published its second report on retail payments. Whereas the first report of September 1999 focused on retail payment instruments and the end-user markets, the more recently published report analyses the clearing and settlement arrangements for retail payments across the G-10 countries and Australia. The report comes to the conclusion that multilateral clearing and settlement systems and automated clearing houses (ACH) are widespread in the countries studied. In some countries, correspondent and central bank arrangements also play an important role. In a number of countries, recent developments, such as the growth of electronic commerce and the emergence of new payment instruments and methods, have increased the demand for new clearing services. Although it is difficult to say at this point where this development will lead, the report highlights the dynamic nature of retail payment systems. The CPSS working group will carry on its work and continue studying the central banks' role in retail payments.

Core principles for systemically important payment systems

The CPSS task force's work on "Core Principles for Systemically Important Payment Systems" was concluded in 2000. The submitted report is in two parts. The first part contains ten essential core principles for the structure and operation of systemically important payment systems (SIPS) for world-wide application. It also includes four principles pertaining to the central banks' responsibility in applying the principles. General standards were set intentionally so that the guidelines can be applied on a sustained basis in the industrial, emerging and developing countries. The second part of the report provides specific details about the interpretation of the principles as well as practical advice on their implementation. Public consultation procedures (which included using the Internet) were conducted in 2000 in order to achieve an international consensus. The responses received from private banks and interested parties together with the comments made by central banks in Africa, America, Asia, the Pacific region and Europe showed that there was strong and widespread support for the guidelines. The report was approved by the governors of the G-10 central banks in January 2001.

Recommendations for securities settlement systems

In the period under review, the CPSS continued its cooperation with other central banks and with the International Organization of Securities Commissions (IOSCO), an international association of securities supervisory authorities. Recommendations for secure and efficient securities settlement systems were made by a new joint working group, which published its findings in a consultation paper in January 2001. A total of 18 recommendations for the design, operation and oversight of settlement systems were formulated and explained. The recommendations deal with aspects of both domestic and cross-border settlement of all types of securities and – like the core principles for systemically important payments systems – are to be applied worldwide.

II. The Bank's international operations

Divergent trends in commission business

The trends in commission business with non-residents were very divergent in the year under review. Distinct declines were manifest in sales of cheques payable to order (25,500 such cheques) and in the collection of items accepted on a commission basis, such as cheques and bills of exchange (5,100), whereas a slight rise was apparent in the collection of foreign cheques (44,300 such cheques). Dealings in foreign banknotes continued to expand strongly on account of the Bank's offer to buy banknotes issued by the central banks of the Eurosystem from anybody. During the year under review, more than 340,000 purchases of foreign banknotes were processed, representing an increase of more than one-third over the preceding year.

III. The Bank's money-market and refinancing operations as part of the Eurosystem

Counterparties ...

It is a condition for participating in the Eurosystem's monetary policy operations that an institution has the status of a counterparty. In principle, counterparties comprise all institutions which are subject to minimum reserve requirements pursuant to Article 19.1 of the ESCB Statute, and which are financially sound. In Germany, the number of such institutions decreased again in the course of the year (as in the previous year) on account of continued mergers in the banking industry, namely from 2,992 to 2,742. Consequently, at the end of the year, Germany accounted for just under 40 % of the almost 7,500 counterparties in the euro area.

... for regular open market operations

In order to have access to monetary policy operations, counterparties must satisfy certain operational conditions. For instance, for participation in regular open market operations, the Bank requires a pledge account, connection to the Automatic Bidding System (ABS) and generally a giro account at a Land Central Bank. The number of German institutions thus entitled to participate fell marginally last year, from 1,550 to 1,529 (in the Eurosystem as a whole, there were about 2,500 such institutions at the end of 2000). Recourse to the marginal lending facility, by contrast, calls for both a giro account at a Land Central Bank and a pledge account. In this case, the number of institutions likewise declined during the year, from 2,132 to 1,962 (in the Eurosystem as a whole: about 3,000 such institutions at the end of 2000). For access to the deposit facility, finally, only an account at a Land Central Bank is needed. In this respect, too, Germany registered a decrease in the course of last year, viz. from 2,668 to 2,485 institutions (Eurosystem as a whole: just over 3,500 such institutions at the end of 2000).

... for standing facilities

... for fine-tuning operations

On account of the higher operational and technical requirements, only a small range of institutions can be considered for fine-tuning operations. A major selection criterion here is a credit institution's activity in the money market or foreign exchange market. At present, the Bank could call, if need be, on a maximum of 45 counterparties for money-market operations and on 18 for foreign-exchange-market operations (Eurosystem as a whole: about 200 and 100 institutions, respectively, at end-2000).

Main refinancing operations

The prime instrument of money-market management by the Eurosystem continues to be main refinancing operations (main tenders), with a standard maturity of two weeks, which are offered at weekly intervals, and through which, on an annual average, around three-quarters of central-bank-money requirements are met. Altogether, 51 open market operations were conducted in 2000, 24 of which were carried out in the first half of the year in the form of fixed-rate tenders at pre-announced fixed interest rates of between 3.00 % and 4.25 %. In order to curb effectively the heavy overbidding at the fixed-rate tenders, the ECB switched at the end of June 2000 to variable-rate tenders, at minimum bidding rates of between 4.25 % and 4.75 %. The amount outstanding in the Eurosystem was € 159 billion (annual average), about one-half of which (€ 73.7 billion) was accounted for by German banks. As before, the large size of the German share is mainly due to the substantial amount of Deutsche Mark currency in circulation.

Longer-term refinancing operations

In order to steady the provision of liquidity, and as a contribution to facilitating the liquidity management of those banks which are less active in the money market, longer-term refinancing operations with maturities of three months were once again offered at monthly intervals. Altogether, twelve so-called "basis tenders", which, as regards maturity and volume, incorporate features reminiscent of the Bank's former discount credit, were conducted in 2000 in the form of variable-rate tenders of pre-announced size. The transactions were settled as US-style variable-rate tenders. On an annual average, the amount outstanding was € 57.2 billion, i.e. one-quarter of aggregate refinancing needs. The German share averaged approximately 60 %.

Fine-tuning operations

In view of the buffer (and thus stabilising) function played by the minimum reserves in the money market, the Eurosystem resorted to fine-tuning operations only twice during 2000. Early in January, the banking system was offered short-term time deposits by way of a "US-style" interest-rate quick tender, in order to siphon off liquidity that had turned out to be "superfluous to requirements" following the smooth negotiation of the Y2K transition. A further reason why this first-ever fine-tuning operation by the Eurosystem was necessary is that the customary injection of liquidity via main tenders was not possible at that time. After all, such operations had been eschewed in advance during the first week of 2000 in order to relieve a period that was expected to be critical of all transactions. Instead, by means of fine-tuning operations, liquidity totalling € 14.4 billion was siphoned off for seven days. In a second operation, shortly before the expiry of the minimum reserve maintenance period ending in June, the Eurosystem injected liquidity amounting to € 7 billion into the money market by means of a one-day interest-rate quick tender. That served to close the liquidity gap which had opened up on the previous day as a result of unexpectedly heavy recourse to the deposit facility (presumably motivated by interest-rate speculation).

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 (a so-called "standing facility"). As a daily average of last year, this facility in the Eurosystem was utilised to the extent of only € 0.4 billion, the Bank's share of which was € 0.3 billion. Against the background of the Y2K problem, there was heavy recourse to the marginal lending facility only at the beginning of 2000. In the Eurosystem as a whole, such recourse amounted at the peak to € 11.4 billion, and at the Bank it totalled € 9.4 billion.

Deposit facility

The deposit facility enables credit institutions to lodge excess liquidity overnight with the central bank at an interest rate below the main tender rate. On a daily average of last year, recourse by the Eurosystem amounted to € 0.5 billion, and by the Bank to € 0.3 billion. Except for isolated disruptions in settling payments, recourse to the deposit facility focused on the end of the reserve maintenance periods, which, of course, is marked by the banks' final liquidity-management decisions. For the Eurosystem as a whole, the highest level of recourse, at € 19.6 billion, was reached on May 23, 2000 (the Bank accounting for € 7.6 billion); for the Bank alone, at € 10.4 billion, from April 28 to May 1, 2000 (weekend/ public holiday).

Range of assets eligible as collateral for refinancing operations

The range of assets that the Bank accepts as collateral for monetary policy operations of the Eurosystem is broad. Two categories are distinguished: "tier-one assets" comprise marketable debt instruments that 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 Bank has put on the list of eligible tier-two assets, in particular, non-marketable debt instruments in the form of trade bills and bank loans. The residual maturity of such assets, when accepted by the Bank, must not be less than one month, and it must 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 of the non-financial sector or self-employed persons, and their registered office must be in Germany. Their eligibility for central bank assistance is checked by the Bank primarily by reference to their annual accounts.

List of eligible assets

The eligible assets are published by the ECB on the Internet. The list specifies every type of eligible asset – provided that it is marketable – in detail. In mid-December 2000, the outstanding volume of such marketable and eligible assets amounted to some € 6,300 billion. Roughly two-fifths of that sum was accounted for by assets held in Germany.

Volume of eligible assets pledged to the Bank

At the end of 2000, counterparties had lodged eligible assets totalling € 405 billion in their collateral pools at the Bank to collateralise refinancing operations (and intra-day loans in the context of settling payments). That figure included € 61 billion of assets held in another member state, and made available across national borders for refinancing purposes at the Bank.

At just under 55 %, the greater part of the assets pledged to the Bank was accounted for by covered bank debt securities (mortgage bonds). Government bonds made up just over 25 %, and uncovered bank debt securities almost 15 %, of the total. The remaining just over 5 % was made up of other marketable assets and loans to enterprises (approximately 42,000 bills of exchange and 8,500 bank loans, amounting in all to € 10 billion).

IV. The Bank's involvement in the issuance of Federal securities and in the management of the Federal and Länder Governments' pension reserves

Pursuant to section 20 (2) of the Bundesbank Act, the Federal Government, the Federal special funds and the Länder Governments should issue debt securities and Treasury bills primarily through the Bank. Accordingly, the Bank acts as the public authorities' "fiscal agent". This function encompasses, alongside the issuance of securities and conducting price-management operations, advisory and coordinating operations. Hence the Bank is represented on the Committee for Public Sector Credit Issues and the Central Capital Market Committee, i.e. on the bodies in which the bond-issuing requirements of the central, regional and local authorities are coordinated, and in which recommendations are made by the banks as to the planning of public sector issues and the techniques to be employed. The Bank also plays an active part in a number of other national and international bodies which address capital-market and stock-market issues in the broader sense.

Issuers

In 2000, the Bank was involved only in the issuance of Federal Government securities. On the strength of authorisations included in the Federal Budget Act, the "German Unity" Fund and the ERP Special Fund were able to arrange the follow-up financing of their impending redemptions under the name of the Federal Government; such issues totalled € 8.7 billion. In this way, the Federal Government arranged the joint borrowing operation, as the sole issuer, on more favourable terms overall.

"Bund Issues Auction Group"

Since 1998, Federal bonds, five-year special Federal bonds (after the conclusion of the sale of a series on market terms), Federal Treasury notes and Treasury discount paper have all been issued uniformly by auctions through the "Bund Issues Auction Group". Membership of this group is conditional on sufficient placing power. That condition is met if at least 0.05 % of the issue volume sold by auction, weighted by type of securities, is taken up. When determining an institution's placing power, the weighting factors are meant to reflect the differing capital commitments and interest exposures involved in the various maturities. The weighting factors remained unchanged in 2000, at 1 for Treasury discount paper, 4 for Federal Treasury notes, 8 for five-year special Federal bonds, 15 for ten-year Federal bonds and 25 for thirty-year Federal bonds; they will remain in effect for 2001 as well.

A ranking list of the Auction Group members, classified by the size of their shares in the issue volume allotted (without specifying the percentages), on the basis of weighted allotment, is published annually. After taking account of the mergers of four institutions into two, the voluntary retirement of three institutions and the retirement of eight institutions at the end of the year owing to lack of sufficient placing power, the number of members of the Auction Group fell from 59 at the beginning of 2000 to 46 at the beginning of 2001. In 2000, Federal securities amounting to € 95.6 billion were issued through the Auction Group in 19 auctions (in 1999: a total of € 101.6 billion in 22 auctions). Besides the issuance of Federal securities through the Auction Group, the Bank continues to place, through the stock exchanges, amounts set aside for market-management operations.

Bund Issues Auction Group
List of members, ranked according to their shares in the weighted amounts allotted in 2000

Table 18

Ranking		Ranking	
1	Deutsche Bank AG	25	Landesbank Berlin – Girozentrale –
2	Morgan Stanley Bank AG	26	Westdeutsche Landesbank Girozentrale
3	UBS Warburg AG	27	SANPAOLO IMI S.p.A. Filiale Frankfurt am Main
4	Dresdner Bank AG	28	Banca Monte dei Paschi di Siena S.p.A. Niederlassung Frankfurt am Main
5	Bayerische Hypo- und Vereinsbank AG	29	DGZ DekaBank Deutsche Kommunalbank
6	Merrill Lynch Capital Markets Bank Limited Zweigniederlassung Frankfurt am Main	30	Hamburgische Landesbank – Girozentrale –
7	Salomon Brothers AG	31	Baden-Württembergische Bank AG
8	Deutsche Genossenschaftsbank	32	HSBC Trinkaus und Burkhardt KGaA
9	Landesbank Baden-Württemberg	33	Bremer Landesbank Kreditanstalt Oldenburg – Girozentrale –
10	Bayerische Landesbank Girozentrale	34	WGZ-Bank Westdeutsche Genossenschafts-Zentralbank eG
11	Landesbank Hessen-Thüringen Girozentrale	35	Deutsche Postbank AG 2
12	ABN AMRO Bank (Deutschland) AG	36	Landesbank Sachsen Girozentrale
13	BNP PARIBAS Niederlassung Frankfurt am Main	37	Vereins- und Westbank AG
14	BHF-Bank AG 1	38	Nomura Bank (Deutschland) GmbH
15	Bankgesellschaft Berlin AG	39	Landesbank Schleswig-Holstein Girozentrale
16	Société Générale S.A. Zweigniederlassung Frankfurt am Main	40	Hesse Newman & Co. (AG & Co.) Kommanditgesellschaft
17	Credit Suisse First Boston AG	41	Stadtsparkasse Köln
18	Goldman, Sachs & Co. oHG	42	Kreissparkasse Köln
19	Commerzbank AG	43	Banca Commerciale Italiana Niederlassung Frankfurt am Main
20	GZ-Bank AG Frankfurt/Stuttgart	44	Bank of Tokyo-Mitsubishi (Deutschland) AG
21	J. P. Morgan Securities Limited Zweigniederlassung Frankfurt am Main	45	Reuschel & Co.
22	Lehman Brothers Bankhaus AG	46	Landesbank Rheinland-Pfalz – Girozentrale –
23	Barclays Bank PLC Frankfurt Branch		
24	Norddeutsche Landesbank Girozentrale		

1 ING Bank N.V., Niederlassung Deutschland, left the Auction Group on June 30, 2000, in order to transact its business with Germany entirely through BHF-Bank AG. The amounts allotted to ING Bank up to its withdrawal have been reassigned to BHF-Bank AG. — **2** Since the merger, Deutsche Postbank AG has taken the place of DSL Bank AG, as its legal successor.

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Issuance of Federal bonds

In 2000 the Bank was involved in the launching of three ten-year and two 30-year bond issues of the Federal Government ("Bunds") with a total volume of € 58.0 billion (1999: € 62.0 billion). By reopening issues, using the auction procedure, and by sales of amounts set aside for market-management purposes, issue volumes of up to € 20 billion were reached. Efforts to enlarge the outstanding amount of bonds in order to achieve large, liquid issue volumes thus continued to be successful.

Stripping

The volume of bonds whose principal and interest payments may be separated ("stripped") totalled € 229.4 billion at the end of the year; around € 3.2 billion (or 1.4 %) thereof were held in stripped form. The highest stripped share, at 17.6 %, was accounted for by the 30-year bond issue of July 1997, which is indicative of distinctly greater interest in long-dated principal and coupon strips.

New issuance strategy for five-year special Federal bonds

In mid-2000, the Federal Government changed its strategy for the issuance of five-year special Federal bonds *("Bobls")*. From series 137 onwards, or since August 2000, only two series of five-year special Federal bonds have been issued per annum, with maturities of initially five years and six months. During the first six months they are sold to private investors as a tap issue. After reaching a residual maturity of five years, amounts of approximately € 7 billion are issued by means of a follow-up auction in the second or last third of the months of February and August; after a period of three months, an increase auction is held in the second or last third of May and November, with a volume of approximately € 7 billion for the preceding issue. Through such concentration on two issues, larger issue volumes per series, of up to € 15 billion, are reached, with the result that the liquidity of the five-year special Federal bonds is distinctly enhanced. Of the total issue volume in 2000, amounting to € 28.5 billion (1999: € 27.0 billion), allotments under the auction procedure accounted for € 24.7 billion, increases in the amounts set aside for market-management operations for € 2 billion, and sales in the open market (as tap issues) for € 1.8 billion.

Federal Treasury notes

Of the two-year Federal Treasury notes *("Schätze")*, which have been on offer since September 1996, a total of € 24.0 billion (1999: € 23.0 billion) was issued at quarterly intervals (March, June, September, December) in the year 2000.

Treasury discount paper

Since July 1996, the Bank has likewise been issuing debt securities running for less than one year *("Bubills")* by auction. In 2000, the issue volume (gross value) of such Treasury discount paper with maturities of six months, which is also issued at quarterly intervals (January, April, July, October), came to € 19.7 billion

Issues of Federal bonds in 2000

Table 19

Issue	Amount issued (€ billion) Total	of which Amount allotted by auction	of which Market-management amount	Terms Nominal interest rate (% p.a.)	Maturity (years/months)	Weighted average price (%)	Average yield (% p.a.)	Date of issue
Federal Government (WKN 113 513) Increase	1 9.0	5.9	3.1	5.375	10/0	99.02	5.50	Jan. 5
Federal Government (WKN 113 514)	5.0	2.6	2.4	6.25	29/11	100.06	6.24	Jan. 19
Increase	2.0	–	2.0	6.25	29/9	–	–	Mar. 23
Increase	2.0	–	2.0	6.25	29/4	–	–	Aug. 15
Total volume	9.0							
Federal Government (WKN 113 515)	8.0	6.3	1.7	5.25	10/2	99.29	5.34	May 3
Increase	10.0	8.1	1.9	5.25	10/0	99.73	5.28	July 5
Increase	2.0	–	2.0	5.25	9/10	–	–	Sep. 14
Total volume	20.0							
Federal Government (WKN 113 516)	10.0	7.9	2.1	5.25	10/2	100.27	5.21	Oct. 18
Increase	5.0	4.5	0.5	5.25	10/1	103.37	4.81	Dec. 20
Total volume	15.0							
Federal Government (WKN 113 517)	5.0	4.0	1.0	5.50	30/2	99.64	5.52	Oct. 25

1 Total amount issued: € 20 billion

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Issues of five-year special Federal bonds in 2000

Table 20

Issue	Amount issued (€ million) Total	of which Sales in the open market	of which Amount allotted by auction	of which Market-management amount	Terms: Sales in the open market Issue prices (%)	Terms: Sales in the open market Yields (% p.a.)	Terms: Auction procedure Weighted average price (%)	Terms: Auction procedure Average yield (% p.a.)	Start of sales in the open market/ Date of stock exchange listing
4.25 % series 134 of 1999 (2005)	5,904	210	4,745	949	97.20 – 99.60	4.33 – 4.88	95.86	5.20	Jan. 3/ Feb. 16
Increase	1,000	–	–	1,000	–	–	–	–	–/Apr. 12
Total volume 1	6,904								
5 % series 135 of 2000 (2005)	6,000	684	4,773	543	99.65 – 101.50	4.65 – 5.07	98.85	5.25	Feb. 15/ May 17
5 % series 136 of 2000 (2005)	6,000	264	5,414	322	99.50 – 101.15	4.74 – 5.10	99.14	5.18	May 16/ Aug. 16
Increase	1,000	–	–	1,000	–	–	–	–	–/Sep. 14
Increase	8,000	–	6,920	1,080	–	–	–	–	–/Nov. 15
Total volume	15,000								
5 % series 137 of 2000 (2006)	643	643	...	...	99.50 – 102.60	4.40 – 5.09	...	...	Aug. 15 /...

1 Sales of series 134 began on November 16, 1999. Total amount of the series issued: € 7,000 million.

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(amount outstanding on December 31, 2000: € 9.7 billion). For 2001 the maximum amount outstanding was set at € 20 billion.

Issue calendar

A detailed overview of the Federal issues planned for the whole of the year was published for the first time in 2001. This complete annual calendar now contains concrete data on issue volumes and dates, as well as all redemptions and quarterly interest payments (classified by quarters and debt instruments).

Market-management operations

Of the listed Federal securities issued in 2000, significant amounts were once again set aside for injecting into the market; specifically, € 18.8 billion in the case of Federal bonds, € 4.9 billion in the case of five-year special Federal bonds and € 4.3 billion in the case of Federal Treasury notes. Of the amounts set aside for market-management purposes, € 27.8 billion was sold successively through the stock markets in 2000 (1999: € 22.7 billion). Since October 2000, after the discontinuance of the Xetra-bond system, amounts set aside for market-management operations have also been sold through Eurex bonds, the new electronic trading system of *Deutsche Börse AG*.

Price-management operations

As in earlier years, the Bank conducted (for the account of the issuers) price-management operations on the German stock exchanges for officially listed securities issued by the Federal Government, its special funds, the former *Treuhand* agency, the former *Deutsche Bundespost*, and for securities issued by the *Kreditanstalt für Wiederaufbau* and the *Deutsche Ausgleichsbank.* Moreover, the Bank conducts price-management operations for bonds issued by the Land of Lower Saxony and listed on the stock exchanges of Frankfurt am Main and Hanover.

Federal savings bonds and Treasury financing paper

In the year under review, the Bank, acting for the account of the Federal Government, continued to be involved in sales (through credit institutions and its own offices) of Federal savings bonds and Treasury financing paper issued on tap. Federal savings bonds with maturities of six and seven years and annually rising yields, which are sold only to natural persons and non-profit-making institutions, were sold in 2000 to the value of DM 6.1 billion (1999: DM 2.0 billion). Treasury financing paper, which is issued in the form of discount paper with maturities of one year and two years, was launched in the amount of DM 3.1 billion in 2000 (1999: DM 2.3 billion).

Indemnification debt securities

The indemnification fund, which, pursuant to the Indemnification and Equalisation Act, grants compensation for losses sustained in the territory of the former

Issues of Federal Treasury notes *(Bundesschatzanweisungen (BSA))* in 2000

Table 21

Issue	Amount issued (€ million) Total	of which: Amount allotted by auction	of which: Market-management amount	Terms: Nominal interest rate (% p.a.)	Maturity (years/ months)	Weighted average price (%)	Average yield (% p.a.)	Date of issue
BSA (WKN 113 689)	5,000.0	4,476.5	523.5	4.50	2/0	99.96	4.52	Mar. 15
Increase	1,000.0	–	1,000.0	4.50	1/11	–	–	Apr. 12
Total volume	6,000.0							
BSA (WKN 113 690)	5,000.0	4,400.0	600.0	5.00	2/0	100.25	4.87	June 14
BSA (WKN 113 691)	5,000.0	4,723.0	277.0	5.00	2/0	99.75	5.13	Sep. 13
BSA (WKN 113 692)	8,000.0	6,059.4	1,940.6	4.75	2/0	100.07	4.71	Dec. 13

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Issues of Federal Treasury discount paper in 2000

Table 22

Issue	Amount issued (€ million)	Date of issue	Terms: Maturity (months)	Weighted average price (%)	Average yield (% p.a.)
January 2000 (WKN 111 433)	4,811	Jan. 12	6	98,304	3.41
April 2000 (WKN 111 434)	5,125	Apr. 12	6	98,043	3.95
July 2000 (WKN 111 435)	4,873	July 12	6	97,727	4.60
October 2000 (WKN 111 436)	4,861	Oct. 11	6	97,504	4.88

Memo item: € 9,734 million outstanding on December 31.

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Issues of Federal savings bonds in 2000

Table 23

Issue	Sales period 2000	Sales (DM million) Total	Federal savings bonds, Type A	Federal savings bonds, Type B	Nominal interest rate (% p.a.)	Final yields (% p.a.) Type A	Type B
1999/ 9+10	1 Jan. 3 – Jan. 4	138	116	22	2.75 – 6.00	4.50	4.78
2000/ 1+ 2	Jan. 4 – Apr. 3	1,574	1,359	215	3.00 – 6.50	5.02	5.31
2000/ 3+ 4	Apr. 3 – May 31	1,153	1,028	125	3.50 – 6.50	5.12	5.39
2000/ 5+ 6	May 31 – Sep. 1	1,467	1,293	174	4.25 – 5.75	4.97	5.11
2000/ 7+ 8	Sep. 1 – Nov. 9	1,379	1,230	149	4.50 – 5.75	5.05	5.18
2000/ 9+10	Nov. 9 – Dec. 6	281	237	44	4.25 – 5.50	4.84	4.96
2000/11+12	2 Dec. 6 – Dec. 31	133	106	27	4.00 – 5.50	4.59	4.75

1 Sales began on November 5, 1999; total sales, issue 1999/9: DM 470 million; issue 1999/10: DM 124 million. — **2** Sales had not been completed by the end of the year.

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GDR, continued, and increased, the allocation of debt securities to eligible parties in 2000. At the end of the year, € 209.6 million of such compensatory debt securities were outstanding.

Federal Republic of Germany – Financial Agency Ltd.

In February 2000, the Federal Finance Ministry decided to hive off Federal Government debt management into a company of independent legal status. To that end, the "Federal Republic of Germany – Financial Agency Ltd.", with its registered office in Frankfurt am Main, was set up in September 2000. This strategy is intended – so the Federal Finance Ministry says – to yield a further optimisation of debt management, and thus a reduction in the cost of raising funds for the Federal Government. To begin with, the Agency is primarily to discharge debt-management duties hitherto performed by the Federal Finance Ministry.

Pension reserves of the Federal and Länder Governments

In order to safeguard pension payments to civil servants, which are going to rise sharply (especially in the years from 2014 onwards), against the background of the looming demographic changes, Parliament, by adopting the 1998 Pension Reform Act, decided to accumulate pension reserves for the Federal and Länder Governments in the form of special funds based on contributions from the recipients of civil servants' pay and pensions. The "Act on a Pension Reserve of the Federal Government" *(Gesetz über eine Versorgungsrücklage des Bundes)* came into force at the beginning of 1999 on the strength of that decision, by virtue of which a special fund called the "Pension Reserve of the Federal Government" *(Versorgungsrücklage des Bundes)* and managed by the Federal Ministry of the Interior was set up to safeguard expenditure on pensions. Under the Pension Reserve Act, the Bank was entrusted with the management of the resources of that special fund.

The transfers of resources to the special fund "Pension Reserve of the Federal Government" totalled about DM 119 million in 2000. In line with the investment guidelines laid down by the Federal Ministry of the Interior and the Federal Finance Ministry, in association with the Federal Ministry of Labour and Social Affairs, the Bank invested those resources in marketable Federal debt securities. At the end of 2000, the market value of the special fund was some DM 193 million.

The Länder Governments are also required to accumulate pension reserves in the shape of special funds. Particular Land Central Banks (Main Offices of the Bank) have been entrusted with the management of the resources of such pension reserve funds by virtue of various regulations.

V. The Bank's participation in banking supervision and changes in banking supervision legislation

1. International harmonisation of banking supervision

In the year under review the Bundesbank was once again involved through numerous bodies and committees in the further development of international banking supervision concepts.

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

Revision of the 1988 Capital Accord

In the year 2000 the Basel Committee focused its efforts on the task of revising the Basel Capital Accord of 1988, which is the internationally accepted standard for banks' prudential capital requirements. In June 1999 the Committee had published a first consultation paper on the revision of these capital requirements, which aroused great interest worldwide. Numerous comments and expressions of opinion in response to this document from the financial sector and other interested parties as well as further intensive discussions within the Basel Committee led to the emergence of a second consultation paper which was presented in January of this year. The banking associations, in particular, now have the opportunity to comment on this paper until the end of May 2001.

Timetable and entry into force

The Basel Committee aims to complete the final version of the new capital standard for banks in the fourth quarter of 2001. In order to give banks sufficient time to implement the new prudential rules, it is envisaged that they will not enter into force until 2004.

Electronic banking

The increase in the execution of banking transactions via electronic media and the associated risks prompted the Basel Committee to examine market developments in the field of electronic banking and to draw up internationally agreed supervisory standards for such business. The Committee's attention is focused on questions relating to cross-border transactions and, more especially, on elaborating principles for ensuring the sound management and control of the technology-related risks. The Federal Banking Supervisory Office and the Bundesbank likewise saw a need to identify and limit security risks associated with electronic banking. Since the beginning of this year the German banking supervisory authorities have therefore been investigating the IT security precautions of credit institutions with a significant Internet business in collaboration with the Federal Office for Security in Information Technology.

Accounting standards

In the year under review the Basel Committee, acting on a mandate from the finance ministers and central bank governors of the G-7 countries, conveyed the findings of its study of the prudential applicability of the International Accounting Standards (IAS) to the International Accounting Standards Committee (IASC). The Basel Committee is supporting the efforts being made to harmonise international accounting practices and is fostering the development of corresponding standards by the IASC through a close dialogue with the IASC and the banks. The dialogue is currently focusing on revising standard IAS 30 "Disclosures in the Financial Statements of Banks and Similar Financial Institutions" and introducing standard IAS 39 "Financial Instruments: Recognition and Measurement" in a form that meets banks' requirements. In its positive overall assessment of the IAS, the Basel Committee also made it clear, however, that it currently rejects the idea of full fair-value accounting for all financial instruments.

Transparency

In September 2000 the Basel Committee published the document "Best Practices for Credit Risk Disclosure" in which it spelled out its ideas of appropriate disclosure of information concerning accounting and valuation principles, risk management, credit exposures and the consequences of credit risk for earnings more generally. The document takes account of comments on the initial consultation paper of July 1999 and complements the disclosure recommendations for traditional lending business contained in the document "Sound Practices for Loan Accounting and Disclosure" of July 1999. It is part of the Committee's ongoing efforts to promote adequate transparency and hence effective market discipline.

Joint Forum

After the Basel Committee on Banking Supervision had published its "Core Principles for Effective Banking Supervision" in September 1997, both the International Organisation of Securities Commissions (IOSCO)[1] and the International Association of Insurance Supervisors (IAIS)[2] published comparable core principles for the supervision of securities trading and insurance business, respectively. At the request of the Financial Stability Forum in September 2000 the "Joint Forum" set up three working groups. The first working group is to compare these various sets of core principles with a view to identifying common principles and analysing the reasons for any differences. The second working group has two tasks. Firstly, it is examining common issues connected with scru-

1 Objectives and Principles of Securities Regulation, Report of IOSCO, September 1998.
2 Insurance Core Principles, October 2000.

tinising accounting policies and practices, corporate governance and the outsourcing of functions. If necessary, this working group is also to produce proposals for corresponding new core principles. Secondly, it is to explore the implications for prudential supervision of the structures of conglomerates. The third working group is to develop principles for risk measurement and management, internal auditing and the avoidance of prudential arbitrage made possible by different definitions of activities that require authorisation by the authorities in the three sectors. At the same time the working group is to look at the different approaches to and objectives of capital requirements. Moving on from there, the suitability of the existing methods of supervising financial conglomerates is to be assessed and, if necessary, translated into corresponding principles. The working groups are to submit the results of their work before the end of this year.

(b) Harmonisation in the European Union

European consultation paper on revising capital requirements

The task of revising the capital requirements for credit institutions and securities trading firms was not only the key activity last year of the Basel Committee on Banking Supervision but was also the focus of the harmonisation efforts being undertaken by the EU Commission. The comments of the financial sector and the business associations on the consultation paper of November 1999 showed the need for a coordinated approach with Basel in terms both of timing and contents. In early February 2001 the Commission issued a further consultation paper to which interested parties may respond up to the end of May 2001. The EU paper takes the Basel consultation paper as its point of reference and details some European specificities. It expresses the desire that internal rating for prudential purposes should be open to use by as many banks and saving banks as possible. The national regulations on capital requirements are intended to enter into force in 2004 at the same time as is envisaged for the Basel Committee's recommendations.

Supervision of financial conglomerates

In November 1999 the European Commission set up a working group known as the Mixed Technical Group on Prudential Supervision of Financial Conglomerates (MTG) in which the supervisory authorities of banks, insurance enterprises and investment firms plus the relevant ministries of the EU member states are represented. Four subgroups considered the results of the work of the Joint Forum set up by the Basel Committee, IOSCO and IAIS to see whether they offer rules which can be translated into European supervision legislation. On the basis of the preliminary work of these subgroups the MTG submitted its concluding report in October 2000 to the Banking Advisory Committee, the Insurance

Committee and the High Level Securities Supervisors Committee at the EU Commission. The report contains around 40 recommendations for changes to the respective sectoral directives. One of the main items in the report is the definition of the concept of a conglomerate[1]. Based on a Europe-wide study, the MTG will examine whether, on the one hand, the definition covers all relevant financial conglomerates and whether, on the other hand, it ensures that groups with negligible activity in the other sectors will be disregarded. With respect to the capital adequacy rules, the MTG comes to the conclusion that the methods, worked out *inter alia* by the Joint Forum, for avoiding double gearing can be used to assess a financial conglomerate's provision with own funds. The MTG proposes qualitative measures for monitoring risks arising from intra-group transactions and risk concentration. These include an internal management system for identifying, measuring, monitoring and controlling intra-group transactions and group-wide risk concentrations, including an information system for the conglomerate's managers, reporting requirements vis-à-vis the supervisors and supervisory enforcement powers, for example the setting of quantitative limits. With respect to assessing the fitness and propriety of the managers and directors and the suitability of the owners, the MTG proposes closer collaboration between supervisory authorities. It suggests that regulatory impediments to the flow of information within the conglomerate and between supervisory authorities should be removed. Finally, it proposes that cooperation in monitoring financial conglomerates should be fostered by appointing a coordinator who would assess capital adequacy across the conglomerate, ensure that information is gathered and disseminated, and plan supervisory activities. The supervisory enforcement powers should remain with the respective supervisory authority, however. The report laid the basis for the draft directive on the prudential supervision of financial conglomerates which has meanwhile been submitted by the Commission.

Directives amending UCITS

At the meeting of the Ecofin Council held in Luxembourg on October 17, 2000 political agreement was unexpectedly reached on a text, which had been altered repeatedly under the presidency of France, concerning the EU Commission's proposal for a first directive amending the UCITS Directive. The amending directive is essentially intended to admit bank deposit funds, money market funds, funds of funds and index-tracking funds. Moreover, in future mutual funds are

1 "A group of undertakings whose activities mainly consist in providing financial services in different financial sectors (banking, investment services, insurance). Such groups comprise at least one supervised undertaking according to EU definitions and at least one undertaking engaged in insurance business, active with at least one other undertaking from a different financial sector."

to be allowed to invest also in derivatives, including OTC derivatives. Several member states, including Germany, insisted on the proviso that the text of the first amending directive adopted by the Ecofin Council is to enter into force simultaneously with the second. In accordance with the draft version of a second directive amending the UCITS Directive (Directive 85/611/EEC), which the EU Commission likewise submitted in July 1998, collective investment companies are to be granted the "European passport", they are to be subject in future to certain minimum capital requirements and their business activity is to be extended to include, in particular, individual portfolio management. In addition, portfolio management companies are to be allowed to delegate their functions to others under certain circumstances. As is already the case with the Investment Services Directive (93/22/EEC), the UCITS Directive is likewise to contain provisions in future stipulating minimum requirements for managers of portfolio management companies and for such companies' business conduct. In addition to the full prospectus, which remains necessary for legal reasons, a simplified prospectus, which will likewise be mandatory, is to present the essential information required by investors in an easily understandable form. On March 12 of this year the Ecofin Council reached agreement on the draft version of the second amending directive; consequently, the European Parliament, some of whose earlier suggestions have not been incorporated into the draft, will now be able to consider both draft directives for the final time.

Banking Supervision Committee of the ESCB

The regular multilateral cooperation between banking supervisory authorities and central banks from the 15 EU member states within the Banking Supervision Committee (BSC) of the European System of Central Banks (ESCB) was continued in 2000. The main focus of the BSC's work is the macroprudential analysis of developments in the financial systems and the elaboration of suitable measures aimed at preventing systemic risks. The growing integration of the financial markets in Europe, the proliferation of cross-border activities by credit institutions and the associated greater risks of contagion require not only solo supervision of individual institutions but also more intensive multilateral cooperation in order to foster the stability of the financial system. As part of these activities, the BSC last year published studies *inter alia* on banks' sources of income and the changes in them, on asset price trends and their potential repercussions for the stability of the banking sector, on mergers and acquisitions and on the development of margins and credit standards of credit institutions in the EU. The collaboration within the BSC makes it possible to exploit synergies between central bank functions and banking supervisory tasks. In addition, the Committee's work helps to narrow divergences in supervision practices.

2. Amendments of national banking supervision legislation

Adjustments to Principle I

There were no fundamental changes last year in national banking supervision legislation.

Adjustments were made last year to Principle I in order to translate three directives amending the EC Capital Adequacy Directive and the EC Solvency Ratio Directive into German law in full and in time by July 2000. In particular, a directive requirement based on the Basel market risk papers relating to the calculation of the specific price risk using internal models has now been completely incorporated into Principle I. This means that for models which capture the specific price risk fully – i.e. inclusive of the counterparty risks and risks of abrupt and erratic price changes (event risks) contained therein ("non-surcharge" models) – the value-at-risk computed as the average over the preceding 60 working days is to be given a weighting factor of 3 instead of 4 as before. In addition, the market price risks arising from the commodity trading of mixed-activity credit cooperatives, which previously were exempted from Principle I, are now to be backed by own funds. The discretion previously granted regarding the method used for calculating the counterparty risk arising from transactions in commodity-related derivatives of these credit cooperatives has been abolished and the marking-to-market method prescribed instead. Furthermore, settlement and counterparty risks arising from business in OTC derivatives settled via recognised clearing houses have been exempted from inclusion in the capital charge until the end of 2006. The transitional arrangement for the lower weighting of commercial mortgages at 50 % was likewise adjusted to the changed provisions of the Solvency Ratio Directive and extended until 2006. Besides the implementation of provisions laid down in the directives, some editorial amendments and clarifications were also made to Principle I. Amongst other things, the authorisation procedure for recognising netting agreements has been replaced by a reporting procedure subject to the possibility of later revocation in line with the practice for large exposures.

National forum for financial market supervision

An agreement was signed last year to set up the Forum for Financial Market Supervision, whose founding meeting took place in December 2000. This was the first time in Germany that a cross-sector supervisory body was set up in institutional form with a view to dealing with the new challenges arising from the inter-sectoral links within the financial industry. The Forum consists of two high-ranking representatives each from the Federal Banking Supervisory Office, the Federal Supervisory Office for Insurance Enterprises, the Federal Supervisory Office for Securities Trading and the Bundesbank. The responsible state secretary in the Federal Ministry of Finance or his deputy may also take part in the meetings. The Federal Banking Supervisory Office has initially assumed the chairmanship, which will rotate annually. The objective of this new Forum is to coordinate supervision of the enterprises operating in the financial markets and to develop existing supervisory concepts further. The Forum aims to keep pace with market developments such as the formation of financial conglomerates or the introduction of bancassurance concepts and to counter the risks which such developments may pose to the stability of the financial system. This necessitates continuous coordination and collaboration between the various supervisory agencies in order to improve the transparency and efficiency of the cross-sector supervision of financial conglomerates. Besides dealing with policy issues concerning the supervision of enterprises active in the financial sector in Germany, it is envisaged that the Forum will also compare notes prior to participation in meetings of international supervisory bodies.

3. Ongoing banking supervision operations

Process of concentration is continuing

At the end of 2000, 2,955 credit institutions were subject to banking supervision in Germany, which was 257 fewer than at the end of 1999. Hence the consolidation process in the banking sector accelerated further in 2000 (in 1997 a net decrease by 113 institutions, in 1998 by 167 and in 1999 by 226). The overall number of credit institutions declined by 280 – mostly due to mergers. In 235 cases credit cooperatives were involved, while 17 cessations related to savings banks. The newly registered institutions last year comprised eight regional banks, seven branch offices of deposit-taking credit institutions or securities trading firms domiciled in another EEA country, six investment companies – whose number thereby increased to 79 –, one savings bank and one housing enterprise with savings facilities. In addition, almost 1,100 financial services institutions held licences at the end of 2000 to provide services pursuant to section 1 (1a) of the Banking Act.

Main banking supervisory activities

Only five credit institutions with important nationwide functions are supervised directly by the Bundesbank's Central Office based on section 7 (1) sentence 3 (2) of the Bundesbank Act. In the case of all other credit institutions and the financial services institutions it is the respective Land Central Bank that is involved in the task of day-to-day supervision. In this case the involvement of the Bundesbank's Central Office is confined to policy issues and coordination functions be-

Ongoing banking supervision operations

Table 24

Number of operations conducted

Item	1997	1998	1999	2000
Individual reports pursuant to section 13 of the Banking Act	72,303	66,491	59,517	48,241
Single borrowers included in the summary reports submitted pursuant to section 13 of the Banking Act	79,063	63,956	332,486	394,829
Reports on loans of DM 3 million or more pursuant to section 14 of the Banking Act	1,751,974	1,863,012	1,862,191	2,074,606
Reports pursuant to sections 24 and 24a of the Banking Act	56,327	39,868	43,091	46,847
Monthly returns pursuant to section 25 of the Banking Act	44,770	46,319	46,301	45,164
Reports on the volume of foreign lending (country risk) pursuant to section 25 (3) of the Banking Act	293	296	271	264
Auditors' reports on annual accounts	2,746	2,798	2,690	3,718
Reports on the auditing of safe custody accounts	602	449	511	731
Routine, special and deposit guarantee fund auditors' reports	1,119	1,333	1,510	1,538
Audits pursuant to section 44 of the Banking Act	56	54	92	74
Auditors' reports on the special funds of investment companies	746	578	828	1,175
Reports from investment companies on their activities	3,423	4,347	4,897	6,110
Reports under Principle I	–	–	39,733	38,128
Reports under Principle II	–	–	63,342	42,629
Audits of risk management models	–	–	19	11
Reports under the Capital Accord of the Basel Committee on Banking Supervision	96	23	92	84

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tween the Land Central Banks and in relation to the Federal Banking Supervisory Office. As a result of the growing sophistication of banking supervision legislation and methods of surveillance, this central task is becoming increasingly time-consuming and complicated. Table 24 shows the volume of work for selected prudential activities performed in the past few years. However, the figures are not always directly comparable owing to changes over time in individual functions (these were commented upon where necessary in earlier Annual Reports).

The number of processed reports on the audits of annual accounts covering the year 2000 for the first time includes the audit reports of financial services institutions. The reports on Principle II for 1999 and for the first half of 2000 include the number of reports concerning the former Liquidity Principles II and III. The data on the volume of processed audit and accounting reports of investment companies mirror the sharp rise in the importance of these specialised credit institutions during the past few years within the German banking industry; that importance is set to grow further – partly in connection with private old-age provision by the population. Almost two-thirds of all the processed reports on investment companies relate to the Frankfurt am Main banking place.

Credit register of loans of DM 3 million or more

The number of loans of DM 3 million or more to be reported quarterly pursuant to section 14 of the Banking Act increased in the twelve months from September 30, 1999 to September 30, 2000 by 5.2 % to around 510,000 reports (see Table 25). The total volume of loans of DM 3 million or more reported went up during this period from approximately DM 11.1 trillion to DM 12.7 trillion on the reporting date, September 30, 2000. As at that reporting date, 3,129 credit institutions and financial services institutions, 645 insurance enterprises and 993 financial enterprises had submitted reports on loans of DM 3 million or more.

The Bank's central credit register ascertains each borrower's aggregate debt on the basis of the reports submitted and discloses this figure to the individual lending institutions in a notification. The number of borrowers notified to lenders at the reporting date September 30, 2000 amounted to 371,100. Just under two-thirds of the borrowers were amalgamated into 74,463 single borrower units pursuant to section 19 (2) of the Banking Act. At the end of September 2000, 132 single borrower units had debts exceeding DM 3 billion; the aggregate indebtedness of those borrowers amounted to over DM 927 billion, which represents slightly more than 7 % of the total credit volume reported. Just under two-thirds of the total credit volume reported (almost DM 7.8 trillion) was taken up by domestic borrowers. Table 25 shows the trend since 1995.

Pre-loan inquiries

The facility introduced at the beginning of 1998 allowing lenders, subject to certain conditions, to request information from the central credit register about the level of indebtedness of potential borrowers prior to granting a loan was used in 408 cases in 2000.

Credit register of loans of DM 3 million or more

Table 25

Third quarter	Volume of loans of DM 3 million or more		Number of loans of DM 3 million or more reported		Number of reporting		
	DM billion	Change (%)	Number	Change (%)	institutions [1]	financial enterprises	insurance enterprises
1995	2,791	+ 6.8	307,544	+ 8.1	2,500	–	383
1996 [2]	6,695	+ 139.9	405,983	+ 32.0	3,667	874	551
1997	8,056	+ 20.3	446,146	+ 9.9	3,635	893	584
1998	9,368	+ 16.3	464,507	+ 4.1	3,496	963	607
1999	11,074	+ 18.2	484,443	+ 4.2	3,355	900	626
2000	12,687	+ 14.6	509,567	+ 5.2	3,129	993	645

1 Credit institutions and securities trading firms. — **2** Extension of the concept of a loan and enlargement of the range of lending institutions required to report as from the reporting date September 30, 1996.

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Insolvencies

In 2000 the credit register recorded a total of 1,549 insolvencies of enterprises and individuals which or who, at the date when the insolvency became known, had loans of DM 3 million or more outstanding. This was 240 cases more than in 1999 (+ 18.3 %). The volume of loans of DM 3 million or more reported for insolvent borrowers amounted to approximately DM 15.1 billion, which was roughly DM 4.3 billion more than in 1999 (+ 39.8 %).

International cooperation between European credit registers

In September 2000 the ECB Governing Council considered the question of international cooperation between the European credit registers. On the basis of two study reports produced by the Working Group on Credit Registers, a subgroup of the Banking Supervision Committee of the European System of Central Banks, the Governing Council decided not to create a new international credit register for the euro area for the time being and, instead, to continue and further intensify the existing international collaboration between the national credit registers in the seven EU countries Austria, Belgium, France, Germany, Italy, Portugal and Spain. Efforts are being made in the context of this collaboration to create the legal and organisational prerequisites for also giving credit institutions in the countries concerned access to the information on the indebtedness of their borrowers stored by the other European credit registers.

Principle I

On the basis of Principle I, the German prudential capital standard, the supervisory authorities ascertain at the level both of individual institutions and of groups of institutions/financial holding groups whether at least 8 % of their credit risks (settlement and counterparty risks) and market price risks are backed by liable own funds (liable capital plus eligible tier-3 funds). Credit risks have to be backed by core capital and additional capital, while market price risks can also be backed by tier-3 funds. Credit risks clearly predominate among the sum total of positions subject to capital charges, accounting for a share of around 92 %. The average capital ratio of all individual institutions for backing their credit risk as at December 31, 2000 was 11.7 % (1999: 11.5 %). On a consolidated basis this ratio stood at 10.9 % at the end of December 2000 (1999: 11.3 %). At the end of 2000 the overall capital ratio of the individual institutions (i.e. including market price risk in relation to liable own funds) came to 10.9 % (1999: 10.8 %), and the corresponding consolidated overall ratio was 10.2 % (1999: 10.4 %). The average overall ratios in relation to the average capital ratios of various sectors of the German banking industry are shown in Chart 21.

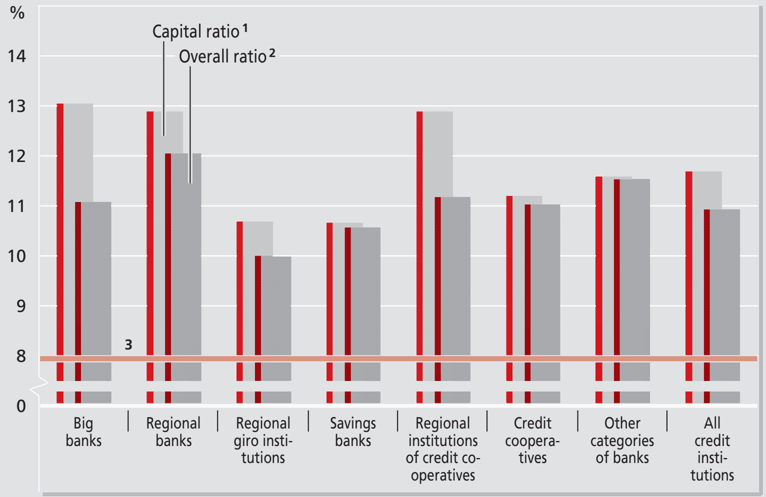
Principle II

The new liquidity standard (Principle II) replaced the previous Liquidity Principles II and III from July 1, 2000 following the expiry of flexible transitional arrangements.

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

Chart 21

End-of-year 2000 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 = (own funds : (weighted risk assets + capital charges for market risk x 12.5)) x 100. — **3** The minimum percentage for both ratios under Principle I is 8%.

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The new standard is based on the matching of liquidity-related assets and liabilities grouped into different residual maturity bands. An institution's liquidity is deemed to be adequate if the means of payment available during the next calendar month at least cover the expected liquidity outflows during the same period (liquidity ratio ≥ 1). As at the reporting date December 31, 2000, the average liquidity ratio of all credit institutions in Germany was 1.37 (1999: 1.42).

Audits of banks' trading activities

The audits of banks' trading activities pursuant to section 44 of the Banking Act, which have been carried out on behalf of the Federal Banking Supervisory Office since 1996 alternately by the Bank and by private external auditing companies or the auditors of the central banking associations, showed that the majority of credit institutions are complying with the "Minimum requirements for the trading activities of credit institutions". In particular, the credit institutions have taken measures to better quantify and limit the risks arising from trading activities.

Prosecution of unauthorised banking business

As part of the task of prosecuting unauthorised banking business or financial services, the Bank collaborates closely with the Federal Banking Supervisory Office in on-site inspections. The task of evaluating the associated documents is largely performed by the Land Central Banks, which then pass on their findings to the Federal Banking Supervisory Office for further action.

Auditing of banks' internal models for measuring and managing market risk

Principle I, which regulates institutions' own funds requirements pursuant to sections 10 (1) and 10a (1) of the Banking Act, allows institutions to use suitable internal risk models for gauging the amount of own funds required for prudential purposes for backing market price risk positions, provided the Federal Banking Supervisory Office has confirmed the suitability of these models upon application by the institution. In 2000 fewer institutions than in the preceding years underwent initial testing for recognition of their models. In the future, however, more institutions will apply to have their internal models recognised pursuant to Principle I Part VII as many institutions which compute the prudential capital charge for market price risk according to the so-called standard methods already use risk management models based on value-at-risk concepts internally. Moreover, institutions which already possess prudential recognition of their internal model for individual risk categories ("partial use") will have to change over in the near future to what is known as "full model use" as Principle I as currently formulated allows institutions to calculate individual capital charges or partial capital charges using an internal model only as a temporary measure. The experience gained during the past few years in respect of authorising internal models for calculating market risk has been positive and is reflected in a qualitative improvement in risk control, a heightened risk awareness on the part of institutions and a changed "risk culture" at banks.

VI. UN/EU financial sanctions: new developments

EU sanctions: Yugoslavia

In accordance with the sanctions against Yugoslavia which were still in force at the start of 2000 (Council Regulation (EC) No. 1294/1999), funds of all institutions controlled or managed by the Yugoslav and Serbian governments and funds held by specifically named persons were frozen. This was in addition to a ban on payments and investment. On May 15, 2000 these measures were intensified in that institutions in Montenegro and Kosovo were considered to be under the respective control of Serbia and Yugoslavia if they were included on a "blacklist" – although no such blacklist was drawn up. All institutions in Serbia (excluding Kosovo) were to be deemed answerable to the Serbian government or the Yugoslav government and therefore subject to the ban on payments and freezing of accounts, unless they were included on a "white list".

Following the presidential elections in the Federal Republic of Yugoslavia on September 24, 2000, the EU relaxed these sanctions. Since November 14, 2000, when Regulation No. 1294/1999 was repealed, only those assets held by Slobodan Milosevic and some 650 persons associated with him have remained frozen and a payment ban imposed on these persons has remained in force (Council Regulation (EC) No. 2488/2000 of November 10, 2000, Official Journal L 287 p. 19–37).

The European Commission has sole powers to grant exemptions from these restrictions for humanitarian purposes. Applications have to be made to the Commission through the locally responsible Main Office (Land Central Bank) of the Deutsche Bundesbank.

EU sanctions: Burma/Myanmar

EU sanctions were imposed on Burma/Myanmar (Council Regulation (EC) No. 1081/2000 of May 22, 2000, Official Journal L 122 p. 29). Financial sanctions consist of freezing funds held outside Burma/Myanmar by persons named in the Regulation and their families; furthermore, no funds may be made available to these persons.

UN sanctions: Taliban of Afghanistan

UN Security Council Resolution 1267 (1999) has been implemented in the EU by means of Council Regulations (EC) Nos. 337/2000 (of February 14, 2000, Official Journal L 43 p. 1) and 1272/2000 (of June 16, 2000, Official Journal L 144 p. 16–17). Accordingly, funds held by the natural persons specified in the Regulation and certain undertakings controlled by the Taliban are frozen; no funds may be made available to them.

Exemptions may be authorised only by the United Nations Taliban Sanctions Committee. Applications have to be made to the UN Sanctions Committee through the locally responsible Main Office (Land Central Bank) of the Deutsche Bundesbank.

By means of Resolution 1333 (2000) of December 19, 2000, the UN Security Council decided to intensify the existing financial and other sanctions and to add further measures. This Resolution has been implemented in the EU by means of Council Regulation (EC) No. 467/2001 of March 6, 2001 (Official Journal L 67 p. 1–23).

UN sanctions: Iraq

The UN financial sanctions imposed on Iraq continue to apply unchanged (sections 52 and 69 e of the Foreign Trade and Payments Regulation).

UN sanctions: Libya

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

VII. Setting up an Economic Research Centre

Concentration of research activities

During the year under review, the Bank set up an Economic Research Centre, which concentrates the Bank's research activities. These include, firstly, the studies elaborated by the Bank's staff. Secondly, the Centre fosters exchanges with academic circles by means of conferences, seminars and other working meetings, and by taking care of outside economists visiting the Bank in connection with research projects. Finally, the Centre contributes to the academic further training of the Bank's economists; such training is necessary to enable them to keep abreast of the latest developments in economics.

Focal points of research

The Bank's research activities focus on monetary issues; particular attention is paid to the transmission mechanism of monetary policy and the development of the financial system, including financial markets and financial intermediaries. One of the objectives is that research should keep in close touch with the concrete tasks facing the Bank.

Discussion papers

The focal points of the Bank's research are reflected both in the topics of the discussion papers that the Bank publishes and in the subjects on which the Bank has organised meetings. For instance, discussion papers have addressed the question of how the German financial markets have behaved during periods of tightness, or how uncertainty affects investment activity in Germany. In the summer and autumn of 1998, the international financial markets were characterised by pronounced turmoil. As a result, investors tried harder to place their assets in safe havens, which are important for the stability of the entire system. The market for German government securities is reckoned to be such a haven. The aforementioned discussion paper examined, on the basis of highly detailed data, how that market had coped with the associated "stress". The study found evidence suggesting that market liquidity had suffered during the period of turmoil, but that, overall, the securities market was able to handle significantly more transactions and a larger volume. In other words, it made a major contribution to overcoming the problems at the time. The investment behaviour of enterprises is likewise of great significance for the development of the national economy. It is therefore of interest to understand the factors on which investment decisions depend. A variable which, against this background, has been attracting greater attention of late is the uncertainty that enterprises feel with respect to their future profits. The research project in question found unmistakable evidence that enhanced uncertainty adversely affects the propensity to invest.

Other projects have investigated how we can best recognise the underlying trend of price movements or the equilibrium value of the exchange rate. Prices are affected by various factors, some of which are only short-lived and are, for instance, seasonal. But monetary policy makers are primarily interested in the longer-term course of price movements. Against this backdrop, attempts have been made in recent years to distil what is known as the "core inflation rate" from the observed inflation rate. However, the research project conducted at the Bank showed that all the methods suggested to date have their weaknesses, so that it appears advisable not to rely on a single mode of computation. It seems to be more promising to adopt several different methods, so as to be able to offset individual drawbacks. In the study of the equilibrium exchange rate of the euro, its medium- and long-term determinants were investigated empirically. A special feature of this investigation was that it was necessary to study a period during which the single European currency was not yet in existence. The longer-term determinants of the real euro/dollar exchange rate turned out to be the real international interest-rate differential, the relative price relationship between traded and non-traded goods, the real petroleum price and the relative government spending ratio in the countries of the euro area, compared with that in the United States. On the basis of the thus-estimated model, it was suspected that – measured in terms of the long-term determinants – the exchange rate at the end of the period under review (i.e. the turn of 1999–2000) was valued rather low.

Conferences

In 2000, five conferences or workshops were held on economic topics, some of them in association with other institutions. The Bank's spring conference was devoted to the determinants of investment activity in Europe. That topic was an obvious choice, especially against the background of a level of investment in the euro area that is often felt to be inadequate. In the autumn, a meeting concerned itself with the ongoing changes in financial systems, and the resultant challenges to economic policy-makers. Not least since the launch of monetary union, changes in financial systems have been taking shape for which central banks must be prepared. Another conference shed light on the topic of "Transparency in monetary policy". The debate on the advantages of a monetary policy that is transparent, and comprehensible to the public at large, has been very vigorous since the establishment of the ECB. Finally, questions on "the equilibrium rate of the euro" and "auction procedures in open market policy" were also addressed. Both subjects are, in the first place, of academic interest. At the same time, they had a bearing on current developments. Thus, the exchange rate of the euro gave cause for intensive debate last year.

Appointment of a research advisory council

To support the Research Centre, and to intensify the relations with academic circles, the Bank appointed a research advisory council last year. It comprises five eminent professors of economics. It is planned to enlarge this body in the future; in particular, greater regard is to be paid to the fact that the Bank is part of an international institution.

VIII. Technical central bank cooperation

Cooperation between central banks is a long-standing tradition

Many central banks in western industrial countries have a long tradition of cooperation with partner central banks in developing countries, emerging markets and countries in transition. Almost all the central banks in the world share the view that an anti-inflationary monetary policy is the best possible means of contributing to lasting economic growth. Furthermore, against a backdrop of economic growth and the increasing integration of the financial markets, the need to work together to ensure the stability of these markets is becoming increasingly evident. Technical central bank cooperation means using training and advisory assistance for executive and other members of staff of foreign central banks as a vehicle for exchanging knowledge and experience. The tasks are shared out within the Bank, with experienced specialists from the Central Office (which is responsible for overall coordination), the Land Central Banks and the Bundesbank Training College at Hachenburg being made available to set up and run the various projects.

Training for 2,000 foreign central bank staff members

In 2000 the Bundesbank provided training and advisory support for just under 50 central banks in developing countries, emerging markets and countries in transition. There were 190 training programmes, involving a total of 2,000 foreign central bank staff members. Since 1992 around 11,500 foreign central bank staff have taken part in more than 1,200 courses organised by the Bank in Germany and abroad. In addition, Bank staff have undertaken advisory work at foreign central banks and have participated in international groups of experts commissioned, for instance, by the International Monetary Fund.

Great interest in EU candidate countries

Recently, central bank cooperation by the Bank has focused increasingly on possible EU accession countries and the related practical issues in each country. As agreed with the European Central Bank and other EU central banks, four special seminars involving just under 100 participants were held specifically for the accession countries in 2000.

What makes technical central bank cooperation a success

The Bank gives this kind of assistance only to those central banks which expressly request it. Close bilateral coordination with the partner central banks is considered vital. The Bank targets relatively young, well-trained employees of foreign central banks with relevant development potential. In addition, the western donor countries and institutions regularly exchange experience gained from central bank cooperation projects. The primary concern here is to coordinate the work of the organisers and to avoid duplication. It has proved very useful for the Bank to concentrate on its main strength, i.e. modern central bank management. The Bank's approach to and perception of this cooperation extend far beyond technical aspects. Relations with the foreign central banks are based on partnership. Suffused by the Bank's stated adherence to monetary stability, the full range of economic, operational and legal instruments involved in modern central bank management is addressed. While in the early years of central bank cooperation mainly general, fundamental central banking issues featured on the agenda, many partner banks are now focusing increasingly on more detailed issues. Particular interest is expressed in foreign transactions, banking supervision, currency supply, data processing, foreign exchange transactions, monetary and foreign exchange policy, credit transactions, central bank legislation, organisation, human resources, accounting, reserve management, internal audit, statistics, national accounting and payment transactions.

Tailor-made fact-finding visits and special seminars

The Bank has an extensive set of instruments for shaping this cooperation. These include individual training programmes in Germany or abroad, standard seminars, practical advisory projects at the bank concerned and specific problem-solving consultancy activities at individual central banks. Topics requested by central banks were the focus of 67 seminars held by the Bank in Germany and 43 held abroad.

Since early 1999 the Bank has been running standard monthly seminars in English. These are mainly one-week courses, in which topics of general relevance to central

Standard seminars continue to grow in importance

banking are discussed. Apart from the traditional partner countries in central and eastern Europe, Latin American, African, Arab and East Asian central banks have expressed interest in sending employees to the Bank's standard seminars on a regular basis. In addition to the goal of imparting specialist knowledge, concepts and experience, these seminars constitute a forum in which a general exchange of experience by central bank staff from all over the world can take place.

Sustained demand for the Bank's cooperation

Recent years have shown that, despite unresolved political and structural problems in many countries, technical central bank cooperation has led to progress in central banking. Overall, however, such a situation increases our partner central banks' need for assistance. They frequently express the view that cooperation with the Bundesbank helps to lend weight to their own calls for central bank independence and for compliance with stability criteria. Interest among the EU candidate countries is also likely to increase rather than decrease in the years ahead. The Bank will gladly continue to take part in international cooperation by sharing its knowledge and experience.

IX. Organisation and staff

Further reduction in branch office network

In the year under review the Bank again responded to the changing demand for central banking services by closing a further 16 branch offices, all of which were in western Germany. One further closure will follow by the end of March 2001. Since publication of the Annual Report 1999 the number of branch offices has been reduced to 128.

Little change in staff numbers

The number of permanent staff in the Bank as a whole changed little in the year under review (minus 6). For the first time for some years the number of branch office staff increased again slightly (plus 32, or 0.4 %). Staff numbers rose in the cash handling area in preparation for the introduction of euro banknotes and coins at the start of 2002; a further increase will probably occur as additional short-term employment contracts are concluded in the course of the year. In the other business areas of the Bank, by contrast, the slight upward trend recorded in 1999 was reversed once the year 2000 issue had been resolved, with the result that the number of staff declined again slightly (Central Office: minus 21, Main Offices: minus 17).

Staff numbers at the Bundesbank*

Table 26

	Staff numbers at the start of 2001				Changes from the start of 2000			
	Total 1	Land Central Banks	Branch offices	Central Office 3	Total	Land Central Banks	Branch offices	Central Office 3
Civil servants	6,627	2,396	3,200	1,031	– 91	– 8	– 86	3
Other salaried staff	8,468	2,276	4,739	1,453	122	– 13	146	– 11
Wage earners	816	255	406	155	– 25	5	– 19	– 11
Total	15,911	4,927	8,345	2,639	6	– 16	41	– 19
of which Trainee civil servants/ other trainees 2	677	208	337	132	12	1	9	2
Permanent staff	15,234	4,719	8,008	2,507	– 6	– 17	32	– 21

	Start of 2001	Start of 2000
* The following are not included in the staff numbers:		
members of staff on secondment for 12 months or more	108	93
members of staff on unpaid leave	734	727
1 Of which, part-time employees: civil servants and other salaried staff	1,451	1,429
wage earners	513	540
2 Other members of staff undergoing training: civil servants changing their career path	40	31

3 Including the Bank's training college.

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Training places increase again

In 2000 the number of trainees remained practically constant at 294. The number of civil service candidates and officials entering a civil service career rose by 28 from 395 to 423.

Total staff numbers remain stable

Given the trends in permanent staff members and trainees, the total number of staff remained virtually unchanged from the previous year, at 15,911 (plus 6).

Bundesbank staff at the European Central Bank

At the end of the year under review 73 members of the Bank'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 predecessor of the ECB. Most of the seconded members of staff are employed at the ECB's professional and managerial levels.

Part-time ratio

The Bank endeavours to comply as far as possible with the wishes of employees regarding part-time work. At 12.9 %, the ratio of part-time employees was the same as in the previous year. While in the case of civil servants and other salaried staff the number of part-time employees rose slightly (plus 22, or 1.5 %), the number of part-time wage earners declined (minus 27). Compared with full-time employees, part-time employees work an average of 57.9 % (previous year: 58.1%). If full-time and part-time employees are taken together statistically on the basis of their contractual working hours, the Bank had 14,407 (full-time) employees in 2000 (previous year: 14,404).

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 January 1, 2001 709 members of staff were engaged in age-induced part-time work; 692 of these (or 98 %) have contracts based on a "phase model", which means that a phase of full-time employment with reduced remuneration is followed by a phase in which the employee does not work. Of the 692 employees indicated above, 140 have now entered the latter phase.

New form of practical training successful

In the year under review candidates for the Bank's Higher Service successfully completed their training under the new training and examination regulations. Thanks to the enhanced practical orientation of the training programme and the greater emphasis placed on international aspects of central banking, the Bundesbank is now acquiring a junior executive staff that is better equipped to deal with the requirements of the European System of Central Banks than before.

Comprehensive training

A "hands-on" approach, which goes beyond merely imparting specialist knowledge, is at the core of the training programmes for all career paths. This is intended to enhance the social and methodological skills of trainee civil servants and other trainees. For example, situations that are typical of international conferences in various fields in which the Bank is active are simulated.

Last year specialist training was influenced by the Bank's involvement in the ESCB and by the preparations for the introduction of euro banknotes and coins, as well as by the developments in the field of national and international banking and financial systems. In addition, as in previous years, particular attention was paid to improving management skills. To this end, the Bank also took part in developing internationally oriented management training programmes run jointly by the EU central banks. In order to promote international skills, employees were also sent to well-known business schools abroad.

On-the-job training

The trend towards integrating further training into the operational working pattern has gathered pace. For example, computer-based self-study courses complement the traditional training programmes on offer and most foreign language training is now carried out as task-related instruction in small groups.

The number of participants in internal and external courses was again roughly the same as in previous years (approximately 13,200 members of staff). The number of courses in the further training programme organised jointly by the Central Office and the Land Central Banks rose by approximately 6 %. All in all, the demand for further training in 2000 was fully met.

Annual accounts
of the Deutsche Bundesbank
for 2000

I. Balance sheet of the Deutsche Bundesbank as at December 31, 2000

Assets

				31.12.1999
			€ million	€ million
1	Gold and gold receivables		32,676	32,287
2	Claims on non-euro-area residents denominated in foreign currency			
	2.1 Receivables from the IMF	7,762		(8,332)
	2.2 Balances with banks, security investment, external loans and other external assets	53,377		(52,422)
			61,139	60,754
3	Claims on euro-area residents denominated in foreign currency		—	—
4	Claims on non-euro-area residents denominated in euro		300	9,149
5	Lending to euro-area credit institutions related to monetary policy operations denominated in euro			
	5.1 Main refinancing operations	110,714		(48,397)
	5.2 Longer-term refinancing operations	27,909		(32,745)
	5.3 Fine-tuning reverse operations	—		(—)
	5.4 Structural reverse operations	—		(—)
	5.5 Marginal lending facility	606		(9,417)
			139,230	90,558
6	Other euro-denominated claims on euro-area credit institutions		10	13
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 Other claims within the Eurosystem (net)	—		(26,275)
			13,471	39,746
10	Items in course of settlement		6	17
11	Other assets			
	11.1 Coins	774		(823)
	11.2 Tangible and intangible fixed assets	2,174		(2,179)
	11.3 Other financial assets	51		(51)
	11.4 Off-balance sheet instrument revaluation differences	—		(—)
	11.5 Accruals and deferred expenditure	1,617		(1,361)
	11.6 Sundry items	1,027		(752)
			5,643	5,166
			256,916	242,130

Discrepancies in the totals are due to rounding.

Liabilities

					31.12.1999
				€ million	€ million
1	Banknotes in circulation			133,944	140,150
2	Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro				
	2.1	Current accounts	46,924		(39,774)
	2.2	Deposit facility	91		(2,122)
	2.3	Fixed-term deposits	—		(—)
	2.4	Fine-tuning reverse operations	—		(—)
				47,015	41,896
3	Other euro-denominated liabilities to euro-area credit institutions			—	—
4	Liabilities to other euro-area residents denominated in euro				
	4.1	General government deposits	59		(79)
	4.2	Other liabilities	400		(448)
				460	527
5	Liabilities to non-euro-area residents denominated in euro			6,583	6,167
6	Liabilities to euro-area residents denominated in foreign currency			12	17
7	Liabilities to non-euro-area residents denominated in foreign currency			0	2
8	Counterpart of special drawing rights allocated by the IMF			1,695	1,653
9	Intra-Eurosystem liabilities				
	9.1	Liabilities to the ECB arising from promissory notes	—		(—)
	9.2	Other liabilities within the Eurosystem (net)	6,855		(—)
				6,855	—
10	Items in course of settlement			20	14
11	Other liabilities				
	11.1	Off-balance-sheet instruments revaluation differences	—		(—)
	11.2	Accruals and deferred income	120		(42)
	11.3	Sundry items	76		(58)
				196	100
12	Provisions			7,486	7,636
13	Revaluation accounts			39,184	34,953
14	Capital and reserves				
	14.1	Capital	2,556		(2,556)
	14.2	Statutory reserves	2,556		(2,556)
				5,113	5,113
15	Profit for the year			8,353	3,903
				256,916	242,130

II. Profit and loss account of the Deutsche Bundesbank for the year 2000

				1999
			€ million	€ million
	– Interest income	9,351		(6,218)
	– Interest expense	– 2,170		(– 1,206)
1	Net interest income		7,181	5,012
	– Realised gains/losses arising from financial operations	2,474		(3,214)
	– Write-downs on financial assets and positions	– 16		(– 1,051)
	– Transfer to/from provisions for general risks, foreign exchange risks and price risks	247		(– 2,030)
2	Net result of financial operations, write-downs and risk provisions		2,705	132
	– Income from fees and commissions	55		(79)
	– Expense relating to fees and commissions	– 8		(– 7)
3	Net income from fees and commissions		47	72
4	Income from participating interests		12	21
5	Net result arising from allocation of monetary income		– 4	– 72
6	Other income		73	191
7	**Total net income**		10,014	5,356
8	Staff costs		980	862
9	Other administrative expenses		299	290
10	Depreciation on tangible and intangible fixed assets		195	173
11	Banknote printing		163	89
12	Other expenses		24	39
13	**Profit for the year**		8,353	3,903

Discrepancies in the totals are due to rounding.

Frankfurt am Main, February 23, 2001

DEUTSCHE BUNDESBANK
The Directorate

Welteke Dr Stark

Dr Fabritius Haferkamp Meister Prof. Dr Remsperger

III. External auditors' report

We have audited the annual accounts, including the bookkeeping, of the Deutsche Bundesbank for the financial year from January 1, 2000 to December 31, 2000. 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 Central Bank Council pursuant to section 26 (2) of the Bundesbank Act are the responsibility of the Directorate 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 Directorate 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, March 21, 2001

KPMG Deutsche Treuhand-Gesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft		Ernst & Young Deutsche Allgemeine Treuhand AG Wirtschaftsprüfungsgesellschaft	
Prof. Dr Wiedmann Wirtschaftsprüfer (chartered accountant)	Rönnberg Wirtschaftsprüfer (chartered accountant)	Graf von Treuberg Wirtschaftsprüfer (chartered accountant)	Havas Wirtschaftsprüfer (chartered accountant)

IV. General information on annual accounts

Legal basis

As part of the preparations for the introduction of the euro, German central banking legislation was adjusted, by means of the Sixth Act Amending the Bundesbank Act of December 22, 1997 (Federal Law Gazette I, page 3274), to the precepts of Community law for Germany's participation in stage three of European economic and monetary union (EMU). At the same time the provisions governing the Bank's accounting, as laid down in section 26 (2) sentences 2 and 3 of the Bundesbank Act, were amended as follows with effect from January 1, 1999:

"The annual accounts shall be drawn up with due regard to the duties of the Deutsche Bundesbank, in particular, those deriving from its being an integral part of the European System of Central Banks, and shall be published with appropriate notes; contingencies need not be disclosed. Unless sentence 2 above entails any deviations, valuation shall be governed by the provisions of the Commercial Code relating to incorporated enterprises *mutatis mutandis*."

Principles for the accounting of the Bundesbank

This amendment also enabled the Bank to adopt the accounting principles of the ECB, which are issued by the ECB Governing Council. The ECB Governing Council adopted principles governing the annual accounts of the ECB, in accordance with Article 26.2 of the ESCB Statute. On that basis the Central Bank Council of the Deutsche Bundesbank decided to adopt those principles as the "accounting principles of the Deutsche Bundesbank"[1] (decision of December 3, 1998, amended by the decisions of March 9, 2000 and December 28, 2000). An overview of the principles for the accounting of the Deutsche Bundesbank appears immediately after this chapter.

The data obtained on the basis of these accounting principles therefore also fulfil the Bank's reporting requirements vis-à-vis the ECB, pursuant to Article 26.4 of the ESCB Statute.

Breakdown

The balance sheet as at December 31, 2000 is drawn up in line with the accounting principles. Owing to decisions taken by the ECB Governing Council, the Central Bank Council adopted the following changes with effect from December 31, 2000:

1 Published as a revised edition in Bundesbank Notice No. 10001/2001 of January 25, 2001.

In the case of transactions with credit institutions a distinction is now made between claims and liabilities arising from monetary policy operations and those arising from other business. The name of assets item 5 has therefore been changed to "Lending to euro-area credit institutions related to monetary policy operations denominated in euro". The claims on credit institutions which do not arise in connection with monetary policy operations and which were formerly shown under assets item 5, sub-item 5.6 "Other claims" are now recorded in the new assets item 6 entitled "Other euro-denominated claims on euro-area credit institutions". The previous year's figures have been adjusted accordingly.

The liabilities to credit institutions formerly shown in liabilities item 2 are likewise broken down into those resulting from monetary policy operations and those not connected with monetary policy operations. Accordingly, the name of liabilities item 2 has been changed into "Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro" and a new liabilities item 3 "Other euro-denominated liabilities to euro-area credit institutions" has been added to the balance sheet.

Audit and approval of the annual accounts

The annual accounts of the Bank for the financial year 2000 were audited by KPMG Deutsche Treuhand-Gesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Berlin and Frankfurt am Main, and Ernst & Young Deutsche Allgemeine Treuhand AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, which the Central Bank Council had appointed to be auditors in accordance with section 26 (3) of the Bundesbank Act. The auditors confirmed without qualification that the Bank's annual accounts for 2000 and bookkeeping comply with German law and present an accurate picture of the Bank's assets and liabilities, financial position and profitability. The Central Bank Council of the Bank approved the annual accounts for 2000 on April 4, 2001.

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

Valuation of gold, foreign currency instruments, securities and financial instruments shall be performed 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, based on 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 directly 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 shall 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 December 31, 1998 shall be revalued on January 1, 1999. Unrealised gains arising on or before January 1, 1999 are to be recorded separately from the unrealised gains which arise after January 1, 1999. The market rates/prices applied by the Bank in the euro-denominated opening balance sheet of January 1, 1999 shall be deemed to be the average acquisition rates/prices as at January 1, 1999. The revaluation items for unrealised gains accruing on or before January 1, 1999 shall be dissolved only in connection with decreases in value and in the event of disposals after January 1, 1999.

V. Notes on the individual balance sheet items

1. Assets

Gold and gold receivables

The Bank's holdings of fine gold (ozf) remain unchanged from last year at 112 million ounces. The gold is valued at market prices at the end of the year (1 ozf = € 293.010).

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 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 € 7,762 million (SDR 5,544 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 2000 drawing rights held amounted to € 5,868 million (SDR 4,191 million) compared with € 6,384 million (SDR 4,677 million) on December 31, 1999. They represent the difference between the unchanged German quota of SDR 13,008 million and the euro balances amounting to € 12,345 million (SDR 8,817 million) at the disposal of the IMF at the end of the year. The decline of SDR 486 million in the holdings of drawing rights on the IMF is ultimately the result of the IMF's reduced lending. This meant that the IMF had to draw less on the financing resources of its creditors.

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. The corresponding counterpart is shown on the liabilities side. The level of special drawing rights held at the end of 2000 amounted to € 1,894 million (SDR 1,353 million) compared with € 1,948 million (SDR 1,427 million) on December 31, 1999. Increases totalling SDR 166 million, mainly as a result of interest credited, were accompanied by decreases amounting to SDR 241 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 2000.

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 = € 1.400085).

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

The balances with banks, security investment, loans and other foreign currency claims amounted to € 53,377 million at the end of 2000 compared with € 52,422 million on December 31, 1999. These are almost exclusively in US dollars (US $ 49,276 million = € 52,957 million), with a smaller amount in yen (¥ 43,937 million = € 411 million) and a very small amount in other currencies; the holdings are interest-bearing. Last year the Bundesbank reduced its US dollar position by US $ 3,119 million. The US dollar items were valued at the end-of-year market rate of € 1 = US $ 0.9305 compared with € 1 = US $ 1.0046 on December 31, 1999. As a result of the substantial appreciation of the US dollar and a revaluation, there is a rise of approximately € 1 billion in the value of this sub-item compared with the level at the end of 1999.

Claims on non-euro-area residents denominated in euro

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

Most of it is composed of the main refinancing operations used as part of money market management. 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 volume tenders with a fixed rate and as variable rate tenders with a minimum bidding rate. At the end of the year the main refinancing operations amounted to € 110,714 million, which was € 62,317 million more than the level on December 31, 1999 (€ 48,397 million).

The longer-term, and in terms of value smaller, refinancing operations are used to provide additional longer-term liquidity at monthly intervals and with a maturity of three months. In the year under review they were held as variable rate tenders. At € 4,835 million, the volume of longer-term refinancing operations at the end of 2000 was 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 December 31, 2000 had declined by € 8,811 million to € 606 million compared with 1999.

Other euro-denominated claims on euro-area credit institutions

This item contains claims which have no connection with monetary policy operations. These claims are balances held at commercial banks in other euro-area countries.

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.

Participating interest in the ECB

Sub-item 9.1 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. On December 31, 2000 this was equivalent to a 31.0 % share of the total capital paid in by the 11 national central banks in the Eurosystem; with the accession of Greece to the Eurosystem on January 1, 2001 this share was reduced to 30.2 %.

Claims arising from the transfer of foreign reserves to the ECB

Sub-item 9.2 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 had transferred foreign reserves (15 % in gold and 85 % in foreign exchange) to the ECB. 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 rate.

Other claims within the Eurosystem (net)

Since November 30, 2000 a daily netting-by-novation procedure has produced 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 9.3 would contain a net assets balance together with the very small settlement balances arising from the traditional correspondent banking operations within the Eurosystem. At the end of the year a net liabilities position is obtained for the Bank from its assets and liabilities, and this is shown in sub-item 9.2 "Other liabilities within the Eurosystem (net)" on the liabilities side. In 1999 the Bank's assets arising from the settlement of TARGET payments to central banks not participating in the Eurosystem had been recorded separately in the balance sheet from those to central banks not in the Eurosystem in asset items 4 and 9.3, respectively.

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 Bank's holdings of German coins are shown in sub-item 11.1. The Bank, acting for the account of the Federal Government (which holds the coinage prerogative), receives new coins from the state mints at face value. The value of the coins recorded declined by 6 % compared with the value on December 31, 1999.

Sub-item 11.2 "Tangible and intangible fixed assets" amounted to € 2,174 million compared with € 2,179 million in 1999; 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 slight decline from December 31, 1999 of € 25 million to € 1,932 million. Net additions of € 76 million were accompanied by depreciation amounting to € 102 million. In the year under review the value of the Bank's furniture and equipment rose to € 219 million after net additions of € 100 million and depreciation totalling € 81 million. In the case of computer software there was an almost unchanged balance sheet value at the end of 2000 of € 23 million after taking account of depreciation amounting to € 14 million and net additions of € 15 million.

Sub-item 11.3 "Other financial assets" contains the Bank's participating interests in the Liquiditäts-Konsortialbank GmbH, Frankfurt am Main, the Bank for International Settlements, Basle, and the cooperative society SWIFT, La Hulpe (Belgium). The 30 % interest in Liquiditäts-Konsortialbank entails for the Bank an unchanged maximum additional commitment of € 285 million.

Sub-item 11.5 "Accruals and deferred expenditure" contains the accrued and prepaid expenditure identified at December 31, 2000. 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.

Among the "Sundry items" (sub-item 11.6) are the Bank's holdings of banknotes issued by other central banks in the Eurosystem, whose equivalent values have not yet been settled.

2. Liabilities

Banknotes in circulation

In the year under review the volume of Deutsche Mark banknotes in circulation declined by € 6,206 million (– 4.4 %) to € 133,944 million. In the previous year it had increased by € 9,599 million (7.4 %); this relatively large increase in 1999 was due mainly to the special situation obtaining at the millennium change.

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 € 46,924 million (31.12.99: € 39,774 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" (€ 91 million) contains overnight deposits at a predetermined interest rate (standing facility).

Liabilities to other euro-area residents denominated in euro

Sub-item 4.1 "General government deposits" encompasses the balances of the Federal Government, its special funds, the Länder Governments and other public depositors. The special funds principally include the Equalisation of Burdens Fund. The deposits of other public depositors constitute balances held by social security funds and local authorities. At December 31, 2000 general government deposits amounted to € 59 million in all (31.12.99: € 79 million).

The deposits of enterprises, individuals and other depositors are the main items shown in sub-item 4.2 "Other liabilities". At the end of 2000 these deposits amounted to € 400 million compared with € 448 million on December 31, 1999.

Liabilities to non-euro-area residents denominated in euro

This balance sheet item, amounting to € 6,583 million (31.12.99: € 6,167 million) contains primarily the fixed-term deposits of central banks and the working balances of monetary authorities, of commercial banks and of international or supranational 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 foreign-currency deposits of banks outside the euro area are recorded in this item.

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 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 on the ECB and on 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.

Since November 30, 2000 a daily netting-by-novation procedure has produced either a net liabilities balance or a net assets 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 are shown in sub-item 9.2 "Other liabilities within the Eurosystem (net)"; at the end of the year the Bank incurred net liabilities of € 6,851 billion arising from these assets and liabilities. In 1999 any liabilities incurred by the Bank through TARGET payment settlements vis-à-vis central banks not participating in the Eurosystem and vis-à-vis central banks that were participating in the Eurosystem would have been recorded separately in the balance sheet under liability items 5 and 9.2, respectively. Furthermore, the liability of € 4 million arising from the allocation of monetary income is shown in this sub-item (see profit-and-loss item 5 "Net result arising from allocation of monetary income"). In 1999 the result of the allocation of monetary income was shown in liability item 11 "Other liabilities", sub-item 11.3 "Sundry items".

Items in course of settlement

This item contains the liabilities items arising from the settlement transactions circulating within the Bank (notably the equivalent values arising from the collection of bills) and from amounts available to cover certified cheques.

Other liabilities

Sub-item 11.2 "Accruals and deferred income" contains the accrued and deferred income identified at December 31, 2000. These consist almost exclusively of interest expenditure which is due in the new financial year and which arose in the financial year just ended.

Provisions

The Bank's provisions are as follows:

	31.12.2000 € million	31.12.1999 € million
Provisions for		
– general risk	3,148	3,395
– pension commitments	2,204	2,023
– any waiver of claims on the ECB	2,016	2,016
– other	117	202
	7,486	7,636

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.

Following an increase of € 87 million, the Bank's provisions for pensions amount to € 2,035 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 to the Bank's staff out of the supplementary pension funds for public sector employees amounted to € 318 million at December 31, 2000. € 169 million of this sum is recorded in the pensions provisions at December 31, 2000. It is planned to set the remaining € 149 million aside in equal amounts in the annual accounts for 2001 and 2002.

The provision for any waiver of claims on the ECB exists in connection with the transfer of foreign reserves to the ECB. In view of the large valuation losses that may arise at the ECB as a result of foreign exchange risks in the event of a falling gold price or of a strong euro, the ECB Governing Council approved a contingency regulation. This stipulates that the central banks participating in the Eurosystem have to assume the ECB's exposure risk up to 20 % of the equivalent euro value of the transferred foreign reserves at the time of the transfer, namely the beginning of 1999 (in the case of the Bundesbank, to a maximum of € 2,449 million). To cover such a waiver of claims the annual accounts for 1999 contained a provision amounting to € 2,016 million, which is equivalent to the profit realised at the time the foreign reserves were transferred to the ECB. The existing provision has been retained unchanged in the annual accounts for 2000. The assumption of the exposure risk is restricted to the period from 1999 to 2001.

The other provisions created primarily for anticipated losses and doubtful liabilities declined by € 85 million net to € 117 million at December 31, 2000.

Revaluation accounts

This item contains the disclosed hidden reserves from the initial valuation at the time of the changeover to market-valuation on January 1, 1999 (revaluation items "old") and the resultant unrealised profits arising from market-valuation on December 31, 2000 (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	19,275	5,201	24,477
Foreign exchange	2,906	10,201	13,106
of which			
SDRs	(160)	(635)	(795)
US dollars	(2,745)	(9,566)	(12,311)
Securities	–	1,601	1,601
	22,181	17,003	39,184

Revaluation items "old"

Revaluation items were created, especially for gold, SDRs and US dollars, during the changeover to market-valuation on January 1, 1999. Although the valuation gains arising from the initial valuation are not eligible for distribution, they are available for offsetting valuation losses. Valuation losses did not arise from the valuation on December 31, 2000 in any balance sheet item for which there was a revaluation item at the end of the year as a result of the initial valuation; to that extent there was no dissolution.

Besides a dissolution in the case of valuation losses, a dissolution takes place only in the case of reductions in the corresponding assets. The Central Bank Council of the Bank decided in this connection at the end of 1998 that in the event of reductions in the holdings of gold, SDRs and US dollars there would be a last-in first-out dissolution on an annual basis. Accordingly, all disposals would first be offset against the acquisitions in the year under review. A proportionate dissolution of the revaluation items "old" concerned would follow only if disposals exceeded acquisitions on an annual basis and the end-of-year holdings were smaller than those carried forward from the beginning of 1999. Reductions in holdings of SDRs and US dollars were recorded at the end of 2000 with the result that a partial dissolution amounting to € 21 million in the case of SDRs and € 267 million in the case of US dollars had to be undertaken. Overall, the revaluation items "old" were reduced by a total of € 287 million, the dissolution amount, to € 22,181 million. The dissolution amount is included in profit-and-loss item 2/sub-item "Realised gains/losses arising from financial operations".

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 January 1, 1999 is shown in the revaluation items "new" at the end of the year.

Owing to the strength of the dollar, the market values of the gold, SDR and US dollar positions at the end of the year were above the respective acquisition values with the result that revaluation items amounting to € 15,402 million were created. There were only slight valuation gains in the case of the other foreign currencies.

Valuation gains of € 1,601 million arose from the valuation of securities, especially as a result of the lower interest rate level in the United States.

Capital and reserves

The Sixth Act amending the Bundesbank Act of December 22, 1997 increased the liable capital to DM 5 billion (€ 2,556 million) with effect from December 31, 1998 and laid down the sum of DM 5 billion (€ 2,556 million) as the upper limit for the statutory reserves.

Profit for the year

The profit and loss account for the year 2000 closed with an annual surplus of € 8,353 million. Pursuant to section 27 of the Bundesbank Act, it will be transferred in full to the Federal Government as the statutory reserves are at their maximum level of € 2,556 million.

VI. Notes on the profit and loss account

Net interest income

This item shows interest income less interest expenditure. Net interest income was significantly higher than in the previous year, rising by € 2,169 million to € 7,181 million.

Gross interest income rose by € 3,133 million from the previous year to € 9,351 million, with interest income in foreign currency increasing from € 2,700 million in 1999 to € 3,691 million. Interest income from euro assets increased from

€ 3,518 million in 1999 to € 5,660 million. There was a particularly sharp rise (of € 1,925 million to € 4,564 million) in income from the refinancing of credit institutions owing to the fact that, on an annual average, interest rates and holdings were greater than in 1999.

Total interest expenditure rose by € 964 million to € 2,170 million compared with 1999. The rise was due primarily to the increase in expenditure on remunerating minimum reserve balances (€ 1,408 million compared with € 844 million in 1999). This was greater on an annual average than in 1999 owing to the rise in interest rates and holdings.

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

The realised gains and losses arising from the disposal of gold, foreign currency and securities are recorded in the first sub-item. In the year under review total gains amounted to € 2,474 million compared with € 3,214 million in 1999. A special factor, namely the income arising from the foreign reserves transferred to the ECB, accounted for € 2,016 million of the total income realised in the previous year. However, this was fully offset by the creation of a reserve of similar size for the possible waiver of claims on the ECB. In the year under review there were gains of € 1,758 million from disposals of US dollars and gains of € 237 million from disposals of SDRs. In addition, the disposals of US dollars and SDRs resulted in a dissolution of part (€ 287 million) of the revaluation items "old" for US dollars and SDRs created on January 1, 1999 (see liability item 13 "Revaluation accounts").

Most of the valuation losses recorded in the sub-item "Write-downs on financial assets and positions" occurred in the yen position (€ 15 million).

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, resulting from the decline in US dollar and SDR holdings compared with the position at the end of 1999.

Net income from fees and commissions

Net income from fees and commissions declined by a total of € 25 million to € 47 million compared with the previous year. The decline was due mainly to reduced commissions for the assumption of guarantees vis-à-vis the BIS (€ 5 million compared with € 30 million in 1999). At a total of € 44 million, net income arising from the handling of payments and from securities trading and safe custody account business was almost unchanged from the previous year.

Income from participating interests

This item contains the Bank's profit from its participating interests in the Liquiditäts-Konsortialbank GmbH and the Bank for International Settlements, which declined by € 8 million to € 12 million. In the previous year there was a one-off gain of € 9 million arising from a write-up at the Bank for International Settlements. Since January 1, 1999 participating interests have had to be shown at their acquisition cost in accordance with the new accounting regulations.

Net result arising from allocation of monetary income

The outcome of the allocation of monetary income among the national central banks in accordance with Article 32 of the ESCB Statute is shown in this item. In accordance with Article 32.5 of the ESCB Statute, the sum of the national euro-area central banks' monetary income is allocated to the central banks participating in the Eurosystem in proportion to their paid-up shares in the capital of the ECB.[1] The allocation of monetary income resulted in a net liability of € 4 million for the Bank (1999: € 3 million). This was due to a transfer of € 14 million from monetary income to the common pool and to a claim by the Bank on the common pool of € 10 million, which is in proportion to its capital share in the ECB.

Other income

The remaining income declined by € 118 million from the previous year to € 73 million. The decline was mainly due to the fact that in the previous year the IMF had made an extraordinary repayment as a result of the dissolution of an IMF reserve account.

Staff costs

Expenditure on staff increase by a total of € 118 million (13.7 %) to € 980 million in 2000. However, if the transfer to the provisions affecting this item is excluded, there was only a slight increase (1.4 %) in expenditure compared with the previous year. This increase was due mainly to rises in the pay of wage and salaried staff and of civil servants in 2000. The number of persons employed by the Bank remained virtually unchanged from the previous year.

Retirement pensions accounted for € 301 million of aggregated expenditure on staff (1999: € 191 million). This sum includes the transfers to provisions for pensions and to the reserve for indirect pension commitments (see liability item 12 "Provisions") as well as payments made to staff of the former Deutsche Reichs-

1 The ECB Governing Council has decided that in the years 1999 to 2001 the monetary income to be transferred by the national central banks will be calculated by paying interest on the monetary base (defined as the liabilities items "Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro: current accounts, deposit facility, fixed-term deposits, fine-tuning operations" and "Liabilities to the ECB arising from promissory notes") at a reference interest rate (defined as the respective current main refinancing rate). All interest expenditure which a national central bank has had to pay on the liabilities items mentioned is deducted from the amount calculated in this way.

bank 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 Bank's Directorate and of the Executive Boards of Land Central Banks amounted to € 4,880,011.42 in the year under review. Former members of the Bank's Directorate, of the Board of Directors and Board of Managers of the Bank deutscher Länder, and of the Executive Boards of Land Central Banks, including their surviving dependants, received payments totalling € 8,541,624.21.

Other adminstrative expenses

The other (non-staff) operating expenditure increased slightly by € 9 million (3 %) compared with 1999 to € 299 million. This item shows not only operating expenditure but also expenditure on buildings and computer hardware and software.

Depreciation on tangible and intangible fixed assets

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

Banknote printing

In the year under review expenditure on banknote printing increased by € 73 million (82 %) from the previous year to € 163 million. The reason for the comparatively low level of expenditure in 1999 was the smaller volume of Deutsche Mark banknotes supplied, on the one hand, and the start of production of euro banknotes, on the other. The banknote printing costs that were incurred during the year under review were mainly for the production of euro banknotes.

Other expenses

Other expenses are principally expenditure on residential buildings.

Branch Offices of the Deutsche Bundesbank

on April 1, 2001

Locality number	Bank place	Land central bank[1]
390	Aachen	NRW
614	Aalen	BW
653	Albstadt	BW
765	Ansbach	BY
464	Arnsberg	NRW
795	Aschaffenburg	BY
720	Augsburg	BY
662	Baden-Baden	BW
532	Bad Hersfeld	H
560	Bad Kreuznach	RS
710	Bad Reichenhall	BY
770	Bamberg	BY
855	Bautzen	STH
773	Bayreuth	BY
100	Berlin	BBB
480	Bielefeld	NRW
430	Bochum	NRW
380	Bonn	NRW
270	Braunschweig	BNS
290	Bremen	BNS
292	Bremerhaven	BNS
257	Celle	BNS
870	Chemnitz	STH
180	Cottbus	BBB
241	Cuxhaven	BNS
508	Darmstadt	H
741	Deggendorf	BY
805	Dessau	BNS
440	Dortmund	NRW
850	Dresden	STH
395	Düren	NRW
300	Düsseldorf	NRW
350	Duisburg	NRW
820	Erfurt	STH
763	Erlangen	BY
360	Essen	NRW
611	Esslingen	BW
215	Flensburg	HMS
500	Frankfurt/M.	H
170	Frankfurt/O.	BBB
680	Freiburg	BW
530	Fulda	H
703	Garmisch-Partenkirchen	BY
420	Gelsenkirchen	NRW
830	Gera	STH
513	Giessen	H
260	Göttingen	BNS
478	Gütersloh	NRW
450	Hagen	NRW
268	Halberstadt	BNS
800	Halle	BNS
200	Hamburg	HMS
254	Hameln	BNS
410	Hamm	NRW
506	Hanau	H
250	Hannover	BNS
620	Heilbronn	BW
259	Hildesheim	BNS
780	Hof	BY
217	Husum	HMS
721	Ingolstadt	BY
222	Itzehoe	HMS
540	Kaiserslautern	RS
660	Karlsruhe	BW
520	Kassel	H
733	Kempten	BY
210	Kiel	HMS
324	Kleve	NRW
570	Koblenz	RS
370	Köln	NRW
690	Konstanz	BW
320	Krefeld	NRW
743	Landshut	BY
285	Leer	BNS
860	Leipzig	STH
266	Lingen	BNS
683	Lörrach	BW
604	Ludwigsburg	BW
545	Ludwigshafen	RS
230	Lübeck	HMS
240	Lüneburg	BNS
810	Magdeburg	BNS
550	Mainz	RS
670	Mannheim	BW
840	Meiningen	STH
731	Memmingen	BY
490	Minden	NRW
310	Mönchengladbach	NRW
362	Mülheim	NRW
700	München	BY
400	Münster	NRW
150	Neubrandenburg	HMS
574	Neuwied	RS
760	Nürnberg	BY
365	Oberhausen	NRW
664	Offenburg	BW
280	Oldenburg	BNS
265	Osnabrück	BNS
472	Paderborn	NRW
740	Passau	BY
666	Pforzheim	BW
160	Potsdam	BBB
650	Ravensburg	BW
426	Recklinghausen	NRW
750	Regensburg	BY
640	Reutlingen	BW
403	Rheine	NRW
711	Rosenheim	BY
130	Rostock	HMS

Locality number	Bank place	Land central bank[1]
590	Saarbrücken	RS
593	Saarlouis	RS
793	Schweinfurt	BY
140	Schwerin	HMS
386	Siegburg	NRW
460	Siegen	NRW
603	Sindelfingen	BW
600	Stuttgart	BW
585	Trier	RS
258	Uelzen	BNS
630	Ulm	BW
694	Villingen-Schwenningen	BW
602	Waiblingen	BW
753	Weiden	BY
356	Wesel	NRW
510	Wiesbaden	H
282	Wilhelmshaven	BNS
790	Würzburg	BY
330	Wuppertal	NRW

1 Abbreviations

BW = Baden-Württemberg (Baden-Württemberg)
BY = Freistaat Bayern (Free State of Bavaria)
BBB = Berlin und Brandenburg (Berlin and Brandenburg)
BNS = Freie Hansestadt Bremen, Niedersachsen und Sachsen-Anhalt (Free and Hanseatic City of Bremen, Lower Saxony and Saxony-Anhalt)
HMS = Freie und Hansestadt Hamburg, Mecklenburg-Vorpommern und Schleswig-Holstein (Free and Hanseatic City of Hamburg, Mecklenburg-Western Pomerania and Schleswig-Holstein)
H = Hessen (Hesse)
NRW = Nordrhein-Westfalen (North Rhine-Westphalia)
RS = Rheinland-Pfalz und Saarland (Rhineland-Palatinate and Saarland)
STH = Freistaaten Sachsen und Thüringen (Free States of Saxony and Thuringia)